

PRESIDENT'S MESSAGE



ROBERT SEARS, M.S., F-ABFT SOFT PRESIDENT rsears@sled.sc.gov

As I prepare my President's Message for ToxTalk, I cannot help but take time to reflect on my experience as a member of the SOFT board of directors culminating in my term as President. SOFT is an ever growing, ever changing professional organization that really feels more like a family then just a society of 1500 members. The dynamic personalities and can-do attitude found across our membership make serving in a leadership role an enjoyable and very rewarding experience.

You may have heard me say this in Cleveland, but it deserves to be repeated, it takes a village of volunteers to put on a successful meeting. The 2022 annual SOFT meeting recently held in Cleveland was a huge success thanks to everyone that participated as a part of the planning committee, our meeting volunteers and the guidance of our

FROM THE EXECUTIVE DIRECTOR'S DESK

PRESIDENT'S MESSAGE

2022 ANNUAL MEETING UPDATE

2023 ANNUAL MEETING UPDATE . 2023 JAT SPECIAL ISSUE

INSIDE THIS ISSUE

co-hosts Shelly Merves Crosby and Doug Rohde. Thanks to all our volunteers for making the meeting such a success! Additionally, it feels right to send out a huge thank you to Beth Olson and CC Watson who worked tirelessly before and during the meeting to make sure everything ran as expected.

Please accept my apology If we did not get an opportunity to speak in person in Cleveland. As we all know, the schedule at the meeting is extremely full starting early in the day and running into the late evening hours. If you would like to discuss upcoming events, opportunities to serve, ideas for future program, issues you have encountered in your lab or just say to hello, please reach out to me either via email or telephone. I look forward to hearing from you and cherish the opportunity to connect.

Lastly, as my term comes to an end, I am honored to have served as the SOFT President for 2022 and am looking forward to further opportunities to serve this great organization. Although we can never be sure of the path our lives will take, I hope to see you again at future SOFT meetings wherever they may be held.

Rohn M. Sear

1	NPS	30-3
	POSTMORTEM COMMITTEE	33-3
3-14	SAMHSA HHS CERTIFICATION	
15-16	ANSI/ASB 036	35-3
17	FORTOX R GROUP	37
18-22	OSAC AND SDO UPDATES	. 38
	MEMBERSHIP	. 39
24	AAFS NEWS	. 39-
25-26	IN MEMORIAM	. 41
27-29	SOFT INFORMATION	42-4

TOXTALK[®] EDITOR Robert Johnson, Ph.D., F-ABFT

ASSOCIATE EDITOR Chris Heartsill, B.S., D-ABFT-FT

EDITOR EMERITUS Yale Caplan, Ph.D., F-ABFT

SECTION EDITORS Matthew Barnhill, Ph.D., F-ABFT Kevin G. Shanks, M.S., D-ABFT-FT

> PRESIDENT Robert Sears, M.S., F-ABFT

PRESIDENT ELECT Erin Spargo, Ph.D., F-ABFT

 \mathbf{D}

U

 \mathcal{D}

TREASURER Tate Yeatman, M.S., F-ABFT

SECRETARY Chris Heartsill, B.S., D-ABFT-FT

> PAST PRESIDENT Amy Miles, B.S.

DIRECTORS Bill Johnson, B.A., D-ABFT-FT Philip M. Kemp, Ph.D., F-ABFT Madeline Montgomery, B.S., D-ABFT-FT Jeri Ropero-Miller, Ph.D., F-ABFT Andre Sukta, M.S.F.S. Madeleine J. Swortwood, Ph.D.

COUNSELORS Daniel S. Isenschmid, Ph.D., F-ABFT Amanda J. Jenkins, Ph.D., F-ABFT, ABC-GKE

> EXECUTIVE DIRECTOR Beth Olson, MBA

OPERATIONS AND SOCIAL MEDIA MANAGER CC Watson

SOFT OFFICE 1955 W. Baseline Rd., Ste 113-442 Mesa, AZ 85202 480-839-9106 <u>info@soft-tox.org</u> PAGE 1

FROM THE EXECUTIVE DIRECTOR'S DESK



BETH OLSON SOFT EXECUTIVE DIRECTOR beth@soft-tox.org

I would like to once again thank Doug Rohde and Shelly Crosby and the rest of the Planning Committee for hosting a phenomenal meeting in Cleveland! My personal highlight was the off-site event at the Rock and Roll Hall of Fame.... And many of you agree. In our post-meeting survey, about 1/3 of attendees pointed to the Rock Hall as their highlight of the meeting. Overall, attendees were as satisfied with the overall meeting experience as they were with previous meetings.

I'd also like to take this opportunity to share what people are saying about SOFT 2022 Cleveland:

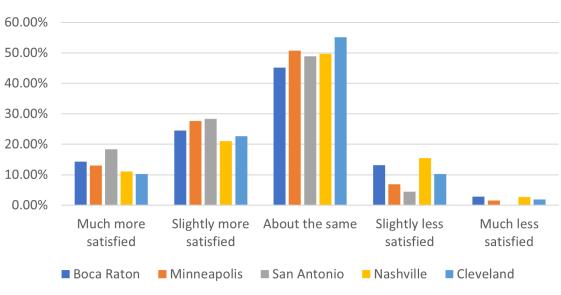
 That was my first time seeing that many toxicologists gathered in one place. It was great networking and learning about experiences from so many and everyone was friendly and open.

- Meeting new people and discovering new methods that I may be able to adopt in our lab.
- There isn't just one highlight to share. The whole meeting was the highlight! Loved the scientific sessions, the networking and the band at the President's Banquet was the BEST!
- Great scientific sessions and networking opportunities. SOFT is by far one of the best-run and most beneficial professional conferences I have ever attended.
- I liked the Cleveland location. It was a well-maintained, beautiful downtown area. I enjoyed the proximity to Rock and Roll Hall of Fame for those who like to walk to evening events. The workshops were high-quality and well-organized.
- I loved the fact that the sessions were able to be viewed and heard in the atrium area outside the ballroom. This allowed work to be done and attendance at the session at the same time. The wifi was good too. Also loved that ample seating was available in the vendor area such that food could be consumed while being seated.
- The three workshops I attended were incredible.

- Scientific sessions were stellar this year and opportunities for networking also great!
- I met new people who had similar labs as well as old college friends and we bounced ideas off of each other.
- Seeing that everyone has the same root problem... it's always traced back to money.
- I had a wonderful time meeting new people and learning about the work they do. Our team hosted a booth, Lunch & Learn and presented posters. It was a wonderful way to interact with our customers.
- I really enjoyed the focus on partnering with public heath to address the issues we're all working to do something about and sharing resources. That's something I have personally been thinking about and it was nice to see it in practice in other places.

Thank you all for your dedication to SOFT. It's been a busy and productive 2022 and we're looking forward to offering even more benefits to our members in 2023!





Satisfaction with Overall Meeting Experience

We were delighted to host the SOFT meeting in Cleveland this year and hope everyone went home with new toxicology knowledge, new vendor contacts and new friends. The week offered a number of excellent workshops, scientific sessions, posters, lunch and learn opportunities, and events for young forensic toxicologists.

Thank you to President Robert Sears, the SOFT Board, Beth, CC, volunteers, sponsors, exhibitors, presenters and attendees. Everyone contributed to an outstanding week of learning and helped make SOFT 2022 possible. We extend a special thank you to our exceptional planning committee and their hard work in making this meeting a success.

We would also like to thank plenary speaker, Jolene DeFiore-Hyrmer, MPH from the Ohio Department of Health who presented a talk on Unintentional Drug Overdose in Ohio: Using Population-based Data Sources and Surveillance with Toxicology Data to Drive Public Health Action.

Let's not forget the social activities! The week started with networking opportunities for the Young Forensic Toxicologists on Sunday followed by the Thermo Fisher Reception on Monday. On Tuesday, the Welcome Reception, Elmer Gordon Forum with special recognition of Dr. Irving Sunshine, and the MilliporeSigma Nite Owl Reception kept the week going strong. The memorable week finished off with Wednesday night at the Rock and Roll Hall of Fame and the Red Carpet President's Banquet on Thursday evening! We look forward

to seeing all of you in Denver in 2023!

Doug and Shelly



VIEW SOFT 2022 ANNUAL MEETING PHOTOS HERE!

2022 HOSTS





SHELLY MERVES CROSBY

DOUG ROHDE

SCIENTIFIC PROGRAM COORDINATORS MICHELE GLINN KIM TOMLINSON

WORKSHOP PROGRAM COORDINATORS JAYNE THATCHER NATHALIE DESROSIERS

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY CARL WOLF

MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

VOLUNTEER COORDINATORS DANIEL BAKER MATT JUHASCIK

FUN RUN COORDINATORS ERIC LAVINS KIM YACOUB

JAT SPECIAL ISSUE EDITOR REBECCA HARTMAN

SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 30-NOVEMBER 4, 2022 HUNTINGTON CONVENTION CENTER



2022 HOSTS





SHELLY MERVES CROSBY

SCIENTIFIC PROGRAM COORDINATORS MICHELE GLINN KIM TOMLINSON

WORKSHOP PROGRAM COORDINATORS JAYNE THATCHER NATHALIE DESROSIERS

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY CARL WOLF

MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

VOLUNTEER COORDINATORS DANIEL BAKER MATT JUHASCIK

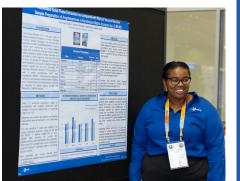
FUN RUN COORDINATORS ERIC LAVINS KIM YACOUB

JAT SPECIAL ISSUE EDITOR REBECCA HARTMAN

SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 30-NOVEMBER 4, 2022 HUNTINGTON CONVENTION CENTER













































2022 HOSTS



SBY DOUG ROHDE

SHELLY MERVES CROSBY

SCIENTIFIC PROGRAM COORDINATORS

MICHELE GLINN KIM TOMLINSON

WORKSHOP PROGRAM COORDINATORS JAYNE THATCHER NATHALIE DESROSIERS

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY CARL WOLF

MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

VOLUNTEER COORDINATORS DANIEL BAKER MATT JUHASCIK

FUN RUN COORDINATORS ERIC LAVINS KIM YACOUB

JAT SPECIAL ISSUE EDITOR REBECCA HARTMAN

SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 30-NOVEMBER 4, 2022 HUNTINGTON CONVENTION CENTER



The 25th Annual Dr. Karla Moore Tox 'N Purge Fun Run and Walk was a great success! 60 hearty souls braved the balmy 50° temperatures for a scenic 5K, running past the Browns Stadium, Science Center, Rock and Roll Hall of Fame, Lake Erie waterfront and then back to the Hilton Hotel. **Kelly Virkler and Aaron Shapiro finished the race together in 1**st **place with Hunter Fleming finishing 2**nd.

118 Fun Run shirts and pins were sold along with 35 cash donations. All proceeds are donated to the American Cancer Society in Dr. Moore's name. Thanks again to the sponsors of the event! Campbell Science, Golden West, Jeol, JusticeTrax, Randox Technologies, Sciteck Diagnostics and Shimadzu, as well as the volunteers of the event.



2022 Fun Run Particpants



2022 Fun Run Volunteers

Thank you to our SOFT 2022 Fun Run Sponsors!



2022 HOSTS





SHELLY MERVES CROSBY

DOUG ROHDE

SCIENTIFIC PROGRAM COORDINATORS MICHELE GLINN KIM TOMLINSON

WORKSHOP PROGRAM COORDINATORS JAYNE THATCHER NATHALIE DESROSIERS

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY CARL WOLF

MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

VOLUNTEER COORDINATORS DANIEL BAKER MATT JUHASCIK

FUN RUN COORDINATORS ERIC LAVINS KIM YACOUB

JAT SPECIAL ISSUE EDITOR REBECCA HARTMAN

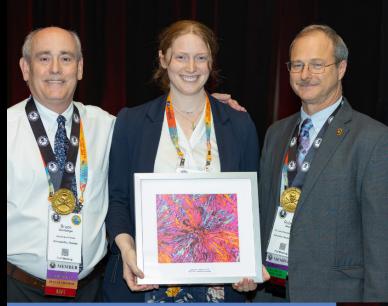
SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 30-NOVEMBER 4, 2022 HUNTINGTON CONVENTION CENTER



PAGE 6

AWARDS



2022 JAT SPECIAL ISSUE EDITOR

REBECCA L. HARTMAN, PH.D.

CSLA TRAVEL AWARD RECIPIENT DRUGS AND DRIVING SPECIAL SESSION

VANESSA BEALL





LEO DAL CORTIVO BEST PLATFORM

MARTHE VANDEPUTTE



LEO DAL CORTIVO BEST POSTER

JOE KAHL

2022 CO-HOST

SHELLY MERVES CROSBY





2022 CO-HOST

DOUG ROHDE

ANNUAL SOFT AWARDS



RESEARCH IN FORENSIC TOXICOLOGY AWARD EDWARD JACKSON CONE, PH.D.

DISTINGUISHED SERVICE AWARD

BRUCE A. GOLDBERGER, PH.D.

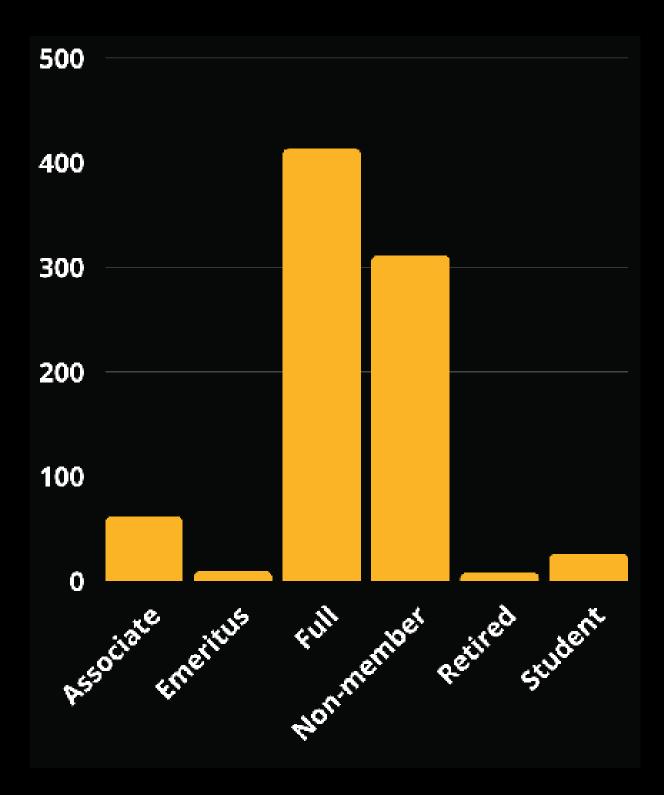




TEACHING AND MENTORING AWARD

WILLIAM ANDERSON, PH.D.

REGISTRATION BY MEMBERSHIP

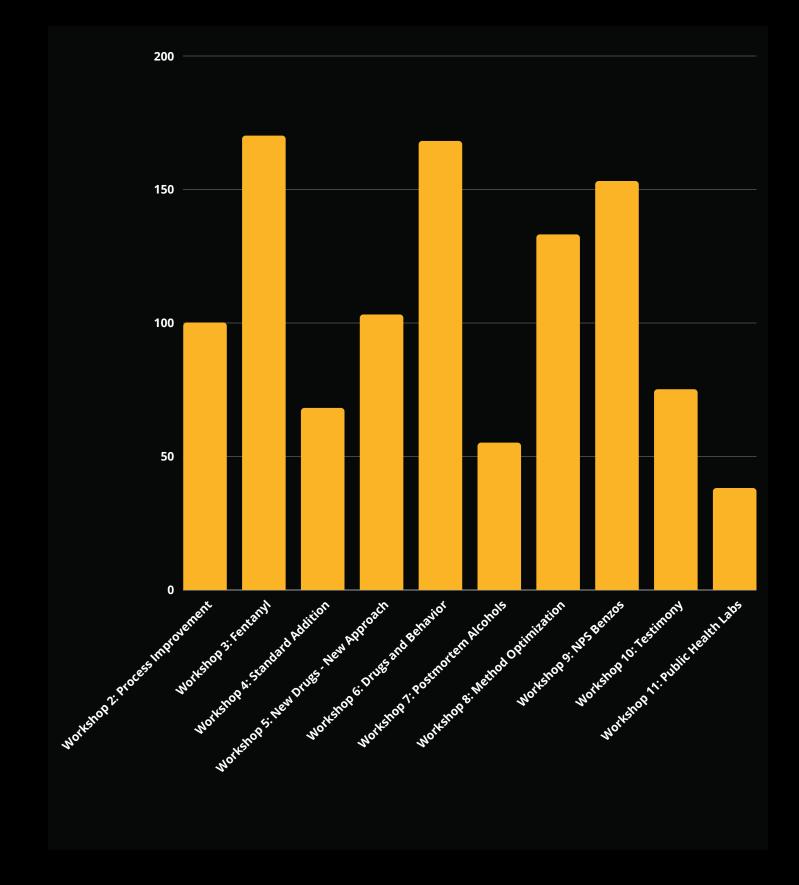


REPRESENTED COUNTRIES





WORKSHOP REGISTRATION



THANK YOU TO OUR SOFT 2022 SPONSORS!









TECAN

TIER FIVE ENTRY SPONSORS \$1,000

JEOL USA, INC

NEOGEN

PEAK SCIENTIFIC INC

THANK YOU FOR YOUR CONTINUED SUPPORT OF SOFT!



ANNUAL MEETING UPDATE - DENVER, CO

The 2023 Annual Meeting will be held in Denver, Colorado. Known as the Mile-High City, the meeting will be held the week of **October 29 – November 3, 2023 at the Gaylord Rockies Resort and Convention Center** in Denver, CO.

Notably, Denver is the most populous city in Colorado, the capitol of Colorado. Located near the Rocky Mountains, there are 200 named peaks visible from Denver, including 32 that soar to 13.000 feet and above. The mountain panorama visible from Denver is 140 miles long. Denver is home to six professional sports teams, including the reigning Stanley Cup champions, the Colorado Avalanche. Denver has a mild, dry, and sunny climate. In fact, Denver has 300 days of sunshine a year, with more annual hours of sun than San Diego or Miami Beach. Expect Denver's temperature to vary during late October to early November, with average temperatures of between 54-67°F during the day and 26-36°F at night. Snow can never be ruled in out in October, but expect it to melt quickly.

Denver's history is short, but colorful. In 1858 there was not a single person living in the Denver Metro Area, but 30 years later it had boomed to a population of over 200,000. The gold rush caused this boom and Denver saw some of the wildest events of the Wild West. This fascinating period is relived in museums, old gold mining villages, and elegant Victorian buildings. Today, almost 3 million people live in the Denver Metro Area.

Denver and Colorado have extensive parks and opportunities for outdoor recreation. While some of these parks are a drive away from the Gaylord, they offer unique opportunities to experience Colorado's diverse and beautiful landscape. City Park, includes the Denver Zoo and Denver Museum of Nature and Science, two lakes, picnic sites, and walking trails. Red Rocks Amphitheatre located near Morrison, Colorado is a beautiful outdoor concert venue with hiking trails. Mountain parks include Echo Lake which is at the base of Mount Evans highway – the highest paved road in North America.

Denver has a notable craft beer culture, with 100 brewpubs, breweries, and taprooms in the metro area. Denver's first brewpub Wynkoop was co-founded in 1988, by our former governor John Hickenlooper. Various Denver neighborhoods such as RiNo, and LoDo include exceptional restaurants, breweries, and even some urban wineries. To highlight this culture, the off-site event will be held at Dry Dock Brewery, in Aurora, CO, a short drive from the Gaylord.

Although the Gaylord Rockies Resort and Convention Center can be seen from the Denver International Airport, it is approximately a 10-mile drive to the venue. Built in 2018, the Gaylord has 1,501 guest rooms (114 suites) with an attached Convention Center with large ballrooms and exhibit halls for our annual meeting. The Resort includes four restaurants and picturesque views of the Rocky Mountains.

The last time the annual meeting of SOFT was held in Denver, CO was in 1996. Over 25 years later, we are happy to welcome back our colleagues and friends in 2023!

Welcome to SOFT 2023 Denver!

Dan and Vanessa

2023 HOSTS





DAN ANDERSON VANESSA BEALL SCIENTIFIC PROGRAM COORDINATORS LUKE RODDA SARA SCHREIBER

WORKSHOP PROGRAM COORDINATORS DONNA PAPSUN LISA REIDY

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY

YFT CHAIR MARISSA FINKELSTEIN

VOLUNTEER COORDINATOR STEPHANIE OLOGSON

> MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

FUN RUN COORDINATORS ARIA MCCALL

JAT SPECIAL ISSUE EDITOR SANDRA BISHOP-FREEMAN

SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 29-NOVEMBER 3, 2023



ANNUAL MEETING UPDATE - DENVER, CO





















2023 HOSTS





DAN ANDERSON VANESSA BEALL SCIENTIFIC PROGRAM COORDINATORS LUKE RODDA SARA SCHREIBER

WORKSHOP PROGRAM COORDINATORS DONNA PAPSUN LISA REIDY

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY

YFT CHAIR MARISSA FINKELSTEIN

VOLUNTEER COORDINATOR STEPHANIE OLOGSON

> MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

FUN RUN COORDINATORS ARIA MCCALL

JAT SPECIAL ISSUE EDITOR SANDRA BISHOP-FREEMAN

SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 29-NOVEMBER 3, 2023



PAGE 16

ANNUAL MEETING UPDATE - DENVER, CO

I am grateful that the incoming SOFT president, Erin Spargo, has put her trust in me to be the Guest Editor for the 2023 SOFT Special Issue of JAT in conjunction with the annual meeting in Denver 2023.

I attended the Cleveland meeting in spirit only because staffing concerns kept me away. Remembering the 2021 meeting in Nashville, I was honored to present at the Young Forensic Toxicologists Symposium where I discussed the importance of making the time for forensic toxicology research. I asked the question, "Will there ever be adequate funding and staff for research within government forensic labs?" In our lab, we currently have limited time within our 40-hour work week to experiment with novel ideas and write manuscripts, yet that additional time can often be the most gratifying and motivating. We have contributed to the SOFT Special Issue in the past, and it is now my time to ask a favor of the ToxTalk readers. Will you find the time to research a forensic problem, explain a novel method, or write a case study? Can you collaborate with a fellow SOFT member(s)?

My final thoughts are to embrace the process by keeping deadlines in mind (see below), while not getting discouraged. Seek out words of encouragement. Try to prevent stress and burnout by taking breaks and by using the team approach rather than shouldering the responsibility as a lone author. I could not have survived the challenging summer (and now fall) without the incredible team at the NC Toxicology Lab, so please work together on a common goal. We are all resilient and capable of great things, even in difficult times!

Thank you in advance for your consideration to either submit a manuscript or help in the review process. Please remember that all accepted manuscripts in which the first author is a SOFT member will be eligible for the 2023 Experimental Design and Impact on Toxicology (EDIT) award for outstanding content and wide impact on forensic toxicology.

I am excited to receive and review your submissions and (finally) see you in person in Denver.

Take care!

Sandra

2023 JAT SPECIAL ISSUE

Editor: Sandra C. Bishop-Freeman, Ph.D.

sandra.bishop@dhhs.nc.gov

Interim Chief Toxicologist

North Carolina Office of the Chief Medical Examiner (NCOCME)

SUBMISSION

March 3: Title and abstract submitted by email to:

sandra.bishop@dhhs.nc.gov

March 17: Final paper submitted through JAT Manuscript Central (please designate SOFT Special Issue)

2023 HOSTS





DAN ANDERSON VANESSA BEALL

SCIENTIFIC PROGRAM COORDINATORS LUKE RODDA SARA SCHREIBER

WORKSHOP PROGRAM COORDINATORS DONNA PAPSUN LISA REIDY

> EXHIBITOR LIAISON LIZ KIELY

FOOD AND BEVERAGE ANN MARIE GORDON DENICE TEEM DELISA DOWNEY

YFT CHAIR MARISSA FINKELSTEIN

VOLUNTEER COORDINATOR STEPHANIE OLOGSON

> MOBILE APPLICATION RUSTY LEWIS ROXANE RITTER SUNDAY HICKERSON

AV COORDINATOR FRANK WALLACE

FUN RUN COORDINATORS ARIA MCCALL

JAT SPECIAL ISSUE EDITOR SANDRA BISHOP-FREEMAN

SOFT STAFF EXECUTIVE DIRECTOR BETH OLSON OPERATIONS MANAGER CC WATSON

OCTOBER 29-NOVEMBER 3, 2023



Business Meeting Agenda Annual Meeting 2022, Cleveland, OH

3:30 – 5:00 pm, November 3, 2022

1.	Call to Order by President Sears at 3:37 pm EST		
	a.	A quorum was established by Secretary Heartsill	
2.	Approval of Agenda Robert Sears		
	a.	Motion to approve: Ruth Winecker, Second Marilyn Huestis, Approved by all	
3.	Approval of 2021 Business Meeting Minutes Robert Sears		Robert Sears
	a.	Motion to approve: Joe Saady, Second Marilyn Huestis, Approved by all	

- 4. President's Report
 - a. President Sears took time to thank those that made participation in SOFT possible including individual's agencies. He asked for a round of applause for the hosts of the meeting and commented that the BOD had been busy in 2022. He spoke about how to get more members involved in SOFT and referenced the Diversity Committee in this regard. He alluded to the new Association Management System that will be discussed by the Executive Director and discussed the student enrichment program. He asked for ideas regarding outreach from the membership and thanked everyone for attending.
- 5. Executive Director's Report
 - a. Olson gave thanks to the BOD, Executive Committee, the Chairs of all committees, Cleveland Hosts, volunteers, and a special thank you to her father, Richard, for the work done to make the meeting happen. She encouraged participation SOFT committees, SOFT Topics, and the mentoring program. She discussed the status of SOFT as a 501 C3 organization and future donations being tax deductible and the future tax savings to SOFT. She also discussed the implementation of the Association Management System (AMS) which will feature a new website and will be launched in December 2022.
- 6. Secretary's Report
 - a. Secretary Heartsill acknowledged that the Policies and Procedures were updated in 2022 and the review by the P&P Committee would begin after the meeting. Heartsill recognized the hard work of the Membership Committee as they routinely review membership applications throughout the year. SOFT currently has 1627 members, an increase of over 200 members since 2021. The traditional moment of silence for SOFT members that have passed away this year was requested as we keep the member and their families in our thoughts.
- 7. Treasurer's Report
 - a. Treasurer Yeatman recognized the hard work of the Finance Committee as well as Beth and CC. He discussed the progress on the Investment plan developed earlier in 2022 and an RFP for the investment firm to manage the investments. An external audit was performed in 2022 as required by Bylaws. There were no findings as a result of the audit. SOFT as an organization remains stable with a bank account balance of \$1,832,824.35 as of 10/21/22. Yeatman reviewed the budget actual and year-end projection. 2022 should keep SOFT in the black although it has been a challenging year. Cost escalation has been observed in every aspect of the operation and the SOFT Board of Directors recommend a dues increase to offset fixed expenditures. A dues increase of \$25 each of the following two years to a final cost for full membership of \$150/year was recommended. Student membership is proposed to increase from \$15/year to \$40/year primarily to offset the cost of the Journal of Analytical Toxicology (JAT) subscription. Retired/

Chris Heartsill

Tate Yeatman

ing. Beth Olson

Robert Sears

Emeritus dues of \$40/year was proposed unless they did not want the subscription to JAT, at which point the dues would remain at \$0/year for this membership status.

8. President-Elect's (Committee/Liaisons) Report

[Note: Each committee chair thanked committee members.]

- a. Awards
 - i. 2022 ERA/YSMA: Award winners for the ERA and YSMA were:
 - ERA PhD Tyson Baird from Virginia Commonwealth University mentored by Dr. Michelle Peace. His presentation was entitled – Opioid-like Adverse Effects of Tianeptine in Male Rats and Mice
 - 2. ERA MS Bailey Jones from Virginia Commonwealth University mentored by Dr. Michelle Peace. Her presentation was entitled – Developing a Unified Method for the Analysis of Five Ethanol Metabolites: EtG, EtS, GTOL, 5-HTOL, and 5-HIAA using UPLC-MS/MS.
 - 3. YSMA Sara Walton from the Center for Forensic Science Research and Education supervised by Dr. Alex Krotulski. Her presentation was entitled – Pharmacology and Toxicology of N-Pyrrolidino Etonitazene – A New Nitazine Synthetic Opioid Increasingly Observed in Forensic Cases
 - 4. YSMA Laerissa Reveil from Virginia Commonwealth University supervised by Dr. Michelle Peace. Her presentation was entitled – The Aerosolization Efficiency of Cocaine in a Eutectic Mixture with Nicotine in Electronic Cigarettes.
 - ii. 2022 Annual Awards (new this year):
 - 1. SOFT Young Forensic Toxicologist Service Award No nominations for 2022
 - 2. SOFT Research in Forensic Toxicology Award Edward Cone
 - SOFT Distinguished Service Award Bruce Goldberger
 - 4. SOFT Teaching and Mentoring Award William Anderson
 - b. Publications
 - i. The committee works with Beth Olson to make JAT continuing education opportunities available through the website. There were 835 continuing education submissions so far in 2022.
 - 1. JAT Special Issue Editor Rebecca Hartman thanked President Sears and Bruce Goldberger for the opportunity and advice. Twenty-two articles were submitted, with nineteen articles accepted. The EDIT award winner this year was Mary Katherine Moody. Hartman was presented with a plaque by Bruce Goldberger on behalf of JAT and with an award by President Sears on behalf of SOFT.
 - c. Applied Analytical Toxicology
 - i. Newly formed committee with new handbook and two meetings so far in 2022.
 - d. Communications
 - i. No report
 - e. Continuing Education
 - i. The committee has hosted four virtual workshops in 2022 with more scheduled for 2023. A request was made for those who want to host a workshop to reach out to the committee.
 - f. Culture, Values and Diversity
 - i. Looking forward to hosting a workshop in 2023 and continued activity from the committee.
 - g. Drug Facilitated Crimes
 - i. The committee's goal was to align ASB standards with DFC Committee recommended cutoffs which have been uploaded to the SOFT website. The committee has hosted an online workshop. There is currently one open position on the committee that needs to be filled.

Stephen Raso

Erin Spargo

Tim Rohrig

Rebecca Wagner

Matt Juhascik

Robert Johnson

Samantha Tolliver

Lisa Reidy

h. Drugs and Driving

Davona Lee

- i. There are currently 18 members on the committee. The committee will update the website posted literature once the new website is functional. THC breath task group is a joint operation between this committee and the Oral Fluid Committee led by Curt Harper. The committee sponsored a workshop at this meeting as well as an online workshop earlier in 2022. Drugs and Driving Special Session was a success and for the 2023 AAFS meeting a special session is planned on Friday of the meeting. Committee members actively participated in several activities throughout 2022.
- ii. This year the Drugs and Driving Special Session will present an award of \$500 to the best presentation sponsored by the Center for the Studies of Law in Action. The winner of the 2022 Drugs and Driving Travel Award is Vanessa Beall for her presentation entitled – Evaluating the Practice of Triple Draws in Colorado using the OSAC Guidelines for Performing Alcohol Calculations in Forensic Toxicology.
- i. Ethics

Madeline Montgomery

Marc LeBeau

Courtney Wardell

- i. Committee is currently working on reviewing the policies and procedures as well as reviewing one complaint from 2022.
- j. Meeting Resource Committee
 - The committee recommended that the 2026 meeting be a joint SOFT/TIAFT meeting in Chicago. i. TIAFT has approved this joint venture. The committee is working on potential sites for 2027 and 2028 meetings to get back on a schedule of setting the meeting sites 5 years in advance.
 - 1. 2022 meeting in Cleveland hosts Doug Rohde and Shelly Crosby thanked everyone for attending. The meeting had 10 workshops, 52 platform presentations, 120 posters, and 917 registered.
 - 2. 2023 meeting in Denver hosts Dan Anderson and Vanessa Beall provided a presentation to promote the meeting and highlights of Denver.
 - 3. 2024 meeting in St. Louis hosts Justin Polklis and Sarah Riley encouraged everyone to attend the meeting and highlighted some of the attributes of the city.
- k. Mentoring

i. Wardell noted that there will be a couple of openings if anyone was interested. Had 41 new pairs and 15 continued pairs in 2022. The committee was busy and hosted 3 webinars. Partnered with SOFTopics for a book club discussion and hosted a job fair at YFT. Registration for next years program begins on November 15th, 2022 and encouraged participation from membership.

I. Nominating

Slate for consideration provided in advance in ToxTalk: i.

- 1. President-Elect: Tate Yeatman
- 2. Treasurer: Jeri Ropero-Miller
- 3. Director: Robert Johnson and Dayong Lee
- m. Novel Psychoactive Substances
 - The committee held 2 successful workshops pairing with the Postmortem Committee and the i. Drugs and Driving Committee. They also held a virtual con-ed workshop and a virtual committee meeting. The committee is looking to continue participation in ToxTalk. Please contact Mata or Kayla Ellefsen with any questions about the committee.
- n. Oral Fluid Committee
 - Curt Harper There are sixteen members on the committee. There were 2 surveys sent out this year for proi. grams in the US as well as the first international survey in conjunction with the Drugs and Driving Committee. Results of the surveys will be posted in ToxTalk. The committee presented an oral fluid and THC breath testing presentation at IACT in Arizona and have been speaking at various other oral fluid trainings.
- o. Postmortem
 - The committee had a very successful first year with 12 members and one open position. In 2022 i. the committee met 4 times and co-hosted a standard addition workshop in conjunction with the NPS Committee. They completed their handbook and are beginning to review literature for PM

Dani Mata

Joe Kahl

Amy Miles

toxicology.

p. SOFTopics

Dani Mata

Amv Miles

- i. Four SOFTopics were held this year, including one in conjunction with the Con-Ed Committee and the other with the Mentoring Committee. They are looking to have 4-5 every year.
- q. Toxicology Resource Committee
 - i. The goals of the committee are to identify gaps in publicly funded forensic toxicology labs and to target resources to assist in furthering the science of forensic toxicology. The committee met virtually to discuss the results of the survey sent out and provided resources for laboratory supply shortages. The committee is presenting a virtual workshop on December 1, 2022.
- r. ToxTalk

Robert Johnson

Erin Strickland

Tim Rohrig

- i. There were many great submissions this year and Johnson encouraged continued submissions. Johnson specifically thanked CC Watson for her hard work on the publication.
- s. Young Forensic Toxicologists (YFT)
 - i. The committee added two new members this year and selected the secretary for next year. They held the YFT symposium, Professional Development Fair, and Student Enrichment Program at SOFT with over 100 participants. The Leo Dal Cortivo award winners will be announced at President's Banquet. The committee plans a professional development workshop early in 2023 and sponsored a workshop on testimony at this meeting.
- t. Consortium of Forensic Science Organizations (CFSO) Liaison
 - i. The purpose of the CFSO is to speak with a single forensic science voice in matters of mutual interests to its member organizations, to influence public policy at the national level, and to make a compelling case for greater federal funding for public crime laboratories and medical examiner offices. The primary focus of the CFSO is local, state, and national policymakers. This year the CFSO opened a listening session with each member organization to determine the main priorities for laboratory needs. Letters have been sent to the Secretary of Commerce to support NHTSA funding for the SDO grants. They have been involved with the blood tube shortage issue making direct contact with manufacturers. A letter to Assistant Secretary of Defense for Health Affairs to encourage continuance of the AFIP toxicology training. The committee will be meeting in November 2022 to discuss Buy America with congress.
- u. FSSB Liaison

Sarah Kerrigan

- i. The most notable updates in regard to FSSB are changes to the registry process to improve efficiency. There will be a more expansive explanation of these in an upcoming issue of ToxTalk. The SDO grants may bring up to \$2M and be administered by NHTSA when approved. The NIST/AAFS cooperative was presented to benefit the community by providing webinars and trainings as well as fact sheets on standards and checklists that have been developed for evaluation of conformance to a standard.
 - 1. Also provided the update for the Academy Meeting. This is the 75th anniversary and registration is open. The deadline for early registration is November 30, 2022. The meeting will be held in Orlando at the Rosen Shingle Creek Resort February 12-18, 2023.
- v. Regional Toxicology Liaison
 - i. Miles gave a brief background of how the RTL program was started. Miles encouraged those interested to speak with the RTLs regarding activities and workload. The inaugural year has been much more than anticipated and the main goals have been accomplished or are underway. The RTLs have been working to address requests from those not in the initial 3 regions. Quarterly reports are provided to NHTSA and will be uploaded to the SOFT website once it is updated. NHTSA is pleased with the progress and will be adding 3 more regions in 2023.
- 9. Announcements (none)
- 10. Unfinished Business (none)
- 11. New Business

Robert Sears Robert Sears Robert Sears

Amy Miles

- a. The Finance Committee met and discussed the increase in fixed costs for SOFT and has recommended a dues increase. Dues would be increased as explained earlier by Treasurer Yeatman. Because the increase was proposed by a committee it does not require a second. Discussion of the increases were as follows:
 - i. Marc LeBeau was not opposed to the increase but requested more transparency as to the actual

expenses being covered. President Sears stressed that these would be used to address fixed expenditures as well as the cost of the JAT subscription. LeBeau identified that other costs had also been reduced. President Sears detailed the costs associated with permanent staff, continuing education costs, software programs, and other fixed expenses.

- ii. Laura Liddicoat also was not opposed to the increase but was wondering if an electronic copy of JAT would be less expensive. President Sears outlined the discussion with JAT and that there is not a difference in price whether it be printed or electronic.
- iii. Michael Wagner asked if SOFT has considered other sources of revenue to cover some costs. President Sears outlined the primary ways that SOFT generates revenue including the annual meeting and membership dues. He further discussed the benefits of 501 c3 status and the investment plan.
- iv. Kristen Burke reminded membership of the benefits of SOFT compared to other organizational memberships.
- v. President Sears called for a vote of the membership in regard to the proposed dues increase.
 - 1. Membership voted unanimously to approve the increase in dues.
- b. Recognition of Outgoing Officers
 - i. Amy Miles (2021 President, Immediate Past President)
 - ii. Robert Sears (2022 President)
 - iii. Erin Spargo (President-Elect)
 - iv. Tate Yeatman (Treasurer)
 - v. Phil Kemp (Director)
 - vi. Amanda Jenkins (Counselor)

12. Elections

Robert Sears Because the slate was proposed by the Nominations Committee no second is required. If there is a nomination from the floor it will require a second. There were no nominations from the floor. A motion was made by Marilyn Huestis to halt nominations and a second by Luke Rodda, all were in favor and the nominations were closed. The following were elected by acclamation:

- a. President-Tate Yeatman
- b. Treasurer: Jeri Ropero-Miller
- c. Director: Robert Johnson
- d. Director: Dayong Lee
- 13. Recognition of Past Presidents
 - a. Asked all Past Presidents to stand for a round of applause. President Sears presented Erin Spargo with her presidential medallion as incoming President.
 - b. Erin Spargo recognized President Sears as the outgoing President and thanked him for his many years of service to the Board.
- 14. Incoming President's Remarks
 - a. Incoming President Spargo gave a moving speech and thanked those that were close to her and everyone that made this possible. She discussed her path to forensic toxicology which was not necessarily straight. She commented on the past president's accomplishments and committed to keep it moving forward while encouraging more involvement by a more varied membership. She discussed the stability and accomplishments of SOFT as an organization and had the honor to make the following appointments:
 - i. JAT Special Edition Guest Editor Sandra Bishop-Freeman
 - ii. Counselor to the Board of Directors Marilyn Huestis
- 15. Raffle Ticket winner for meeting registration for 2023 Chad Norfleet
- 16. Adjournment
 - a. President Sears requested a motion to adjourn which was made by a SOFT Member and a second was provided by Marilyn Huestis. All members approved.
 - b. Adjournment was at 5:10 pm EST.

Erin Spargo

Robert Sears

PAGE 22

YOUNG FORENSIC TOXICOLOGISTS (YFT)

Fellow SOFT members!

YFT hopes everyone had a wonderful time at the SOFT annual meeting in Cleveland a few weeks ago! The YFT Symposium on Sunday night was a great success! Our guest speaker, Dr. Teri Stockham, gave a great presentation about the business of being an expert witness consultant and former Leo Dal Cortivo Award winners, Sara E. Walton and Ludymyla S. Tavares brought everyone up to speed on their latest work! The SOFT Board made an appearance and welcomed all the young forensic toxicologists to the meeting, reminding everyone that we are a closeknit community.

YFT also hosted a half day workshop titled "Good Reputation: the Beginner's Guide to Toxicology Testimony." The workshop was well received and attendees witnessed a mock testimony.

The YFT committee awarded the Leo Dal Cortivo Platform Award to Marthe Vandeputte for her presentation, titled "First Identification, Chemical Analysis and Pharmacological Characterization of N-piperidinyl Etonitazene (etonitazepipne), a Recent Addition to the 2-benzylbenzimidazole Opioid Subclass". The Leo Dal Cortivo Poster Award went to Joseph Kahl for his poster titled "When party balloons became taboo: gas chromatograph carrier gas conversion from helium to hydrogen". We are looking forward to an update on their work next year at the 2023 YFT Symposium.

We look forward to seeing everyone in Denver!

In other news, we also hope everyone will attend our co-hosted webinar with the Membership Committee on professional development, entitled "How to Promote Yourself: In SOFT, In Your Career." Look for an announcement in early 2023.



Dr. Teri Stockham discussing the business of being an expert witness at the 2022 YFT Symposium

UPCOMING WEBINAR!

CO-HOSTED WITH THE MEMBERSHIP COMMITTEE

"HOW TO PROMOTE YOURSELF: IN SOFT, IN YOUR CAREER."



Chair Amanda Rausch

Vice Chair Marissa Finkelstein

> Secretary Erin Strickland

Immediate Past Chair Vanessa Meneses

Members

Whitney Brown David Cook Sara Dempsey Lindsay Glicksberg Kristin Kahl Alex Krotulski Kayla Neuman Elisa Shoff Lauren Wolfe



The inaugural year of the Regional Toxicology Liaisons (RTL) project has been incredibly busy. A common issue amongst laboratories throughout 2022 has been supply chain shortages. Blood tubes have topped the list, but we've also heard about shortages of headspace vials, pipettes and pipette tips, and helium. In response, the SOFT Toxicology Resource Committee created a document to assist laboratories through the supply chain shortages (http://softtox.org/blood-tubeshortage). Chris Heartsill (RTL Region 7) has located potential manufacturers for blood tubes and headspace vials. If you are experiencing these shortages, please contact Chris!

To meet requests and needs outside of the current project scope (NHTSA Regions 5, 7 and 9), the RTLs are assisting laboratories in all areas of the country. Some of the requests the RTLs have received are assistance with method development and validation, feedback on current policies, education of lawmakers on general impaired driving topics, and overall training. If your laboratory is outside the current region scope, you may still contact Amy Miles, the Program Manager, to see how the RTL project might assist your laboratory.

In September, the RTLs held training sessions for each of their regions. The focus of the training was courtroom testimony, providing tips on staying calm and relaxed in a stressful situation and other public speaking information. The feedback from the September training was very positive with suggestions for future training topics and insight on how to improve the testimony training.

Due to the overwhelming request for

testimony training, the RTLs are working on a curriculum to meet this need. They will be piloting the in-person testimony training in Indiana in December. Using the framework from the in-person training, the RTLs will create a curriculum that will be implemented throughout the current regions. Look for announcements soon on upcoming training offerings in 2023. Other training requests have also included method validation, development, and standards implementation. We welcome all topic suggestions. If you have any specific training requests, we want to hear from you! Please get in touch with the Program Manager or any RTL below.

Amy Miles

Region 5	Region 7	Region 9
GHSA, Sept 2022, Louisville, KY	20 th Annual LECC Training, Aug 2022, Spring- field, MO	IDTS Conference, Aug 2022, San Antonio, TX
RTL Oral Fluid Summit (virtual), Oct 2022	IDTS Conference, Aug 2022, San Antonio, TX	R9 Quarterly Meeting – testimony training, Sept 2022
NEAFS Annual Meeting, Oct 2022, Niagara Falls	R7 Quarterly Meeting – testimony training, Sep 2022	RTL Oral Fluid Summit (virtual), Oct 2022
WI Toxicology Summit, Oct 2022, Madison, WI	RTL Oral Fluid Summit (virtual), Oct 2022	CA IDTF Meetings
SOFT TRC Internship Webinar, Dec 2022	RTL Update – SOFT, Nov 2022	RTL Update – SOFT, Nov 2022



Professional Mentoring Program Leadership and Development

This year, participants listed development of interpersonal skills/ leadership skills as the top goal for this mentoring year. Three webinars and the book club provided tools and resources to aid the participants.

Webinar #1: Leadership Development skills

Imposter Syndrome: Presentation by Dr. Goerner

Participants attended a presentation where they learned about imposter syndrome and ways to overcome it in the workplace and in their personal life.

Webinar #2: Communication

Celeste Headlee Ted Talk: 10 ways to have a better conversation

Participants watched a Ted Talk video and separated into break-out groups to discuss ways to improve conversations. Small group discussions were facilitated to help people feel comfortable in sharing and learning from one another.

Book Club in conjunction with SOFTopics: Leadership

Dare to Lead: Brave Work. Tough Conversations. Whole Hearts.

Book by: Brené Brown

Participants signed up to commit to reading Dare to Lead. Participants were divided into small groups to have a discussion about the book. These discussions allowed for us to look at ourselves and how we can be better leaders no matter what position we are in.

Webinar #3: Leadership

Panel discussion with professionals at different stages of their career. Participants were able to listen to a panel discussion and had the opportunity to ask questions.

SOFT 2022

The annual meeting was also a 'meeting of the minds' for mentors and mentees able to link up in Cleveland, OH. While we are fortunate to be able to use so many resources and technologies to facilitate professional communication and personal development virtually, we are grateful for the opportunity to share the same space at the same time. This in-person meeting helps highlight the working relationships that mentors and mentees built and is a wonderful step ahead of 2022's program culmination. The reception was also able to introduce participants to one another who may not have known each other beforehand.

PMP is constantly looking to provide the most up to date resources to aid the participants throughout the year. If you are currently in the program, please fill out the end to the year survey and include ideas for future webinar ideas!



Watch the Professional Mentoring Program's 2022 Commencement Video HERE!

2022 Professional Menotring Committee at SOFT 2022

We are nearing the completion of the third year of SOFT's Professional Mentoring Program. The 2022 class included 56 total mentor-mentee pairs. Our plan for 2023 is just as ambitious and we invite all SOFT members to participate. Applications are due by December 15, 2022

PARTICIPATION DETAILS

The committee will be matching mentees with mentors based on the information you provide on your registration form. We try to pair you to make the best possible match, so please answer these as honestly as possible. A few considerations:

You may be of an age and career position in which you can serve as a mentor to a student or a new professional, but also be interested in being paired with a mentor. The registration form allows you to select both "Mentor" and "Mentee".

The committee may have a situation in which we have more mentees than mentors who register. Therefore, if you have the interest and capacity, please select that you would be open to mentoring two individuals.

The program requires a one-year commitment. If an assigned pair wishes to extend their relationship beyond that (and we hope this happens!), then you are welcome to continue to participate in that capacity either formally or informally. If you choose to continue formally, a new mentoring agreement will be completed for 2022.

SOFT membership is a requirement for participation . If you are not a SOFT member, but want to participate, as long as you have applied for membership to SOFT, you are eligible.

If you have any questions, please check out our Myth Busters in ToxTalk issue 3 of 2022 or email Courtney Wardwell at Courtney.Wardwell@dfs.virginia.gov

2023 SOFT PMP SCHEDULE

• December 15, 2022: Registration deadline for 2023 participation

- January 2023: Notification of 2023 mentor/mentee pairs
- January/February 2023: Pairs meet at least once, face-to-face, or virtually
- January/February 2023: Virtual Kickoff
- March/April 2023: Pairs meet at least once, face-to-face, or virtually
- Spring 2023: Mentoring activity, TBD
- Summer 2023: Mentoring activity, TBD
- October/November 2023: In-person event at SOFT 2023 in Denver
- December 2023: Final Program

PROGRAM GOALS

To engage members in the mission of SOFT by:

- 1. Developing and nurturing future leaders of the organization
- 2. Providing a forum for one-on-one career advice
- 3. Offering a forum for mutually beneficial knowledge transfer for the purpose of supporting and advancing the organization and the forensic toxicology field.

MENTORING

APPLICATIONS DUE BY DECEMBER 15

APPLY HERE!



Submitted by Sara Dempsey and Nick Tiscione

The SOFT/AAFS Drugs and Driving Committee sponsored a special session during the 2022 SOFT Annual Meeting in Cleveland, Ohio. Highlights of the presentations prepared by the authors are included below. The email address is listed for the author(s) that can be contacted if there are additional questions or requests for more information.

S11 Evaluating Drug positivity for Tier I and Tier II Drugs Relative to BAC Thresholds

Amanda L.A. Mohr*, Melissa F. Fogarty, Grace Cieri, CFSRE, Willow Grove, PA

Barry K. Logan, CFSRE, Willow Grove, PA and NMS Labs, Horsham, PA

mandi.mohr@cfsre.org

- Analysis of a large data set (n=2,514) showed that 79% of all cases analyzed were positive for drugs with 40% being positive for ethanol (data is not mutually exclusive).
- With respect to percent positivity distribution, 31% of the cases were positive for Tier I drug(s) only, 22% were positive for Tier I and Tier II drug(s), and 17% were ethanol only positives. The most frequently detected Tier I drugs included THC (48.8%), methamphetamine (15.5%) and fentanyl (13.8%).
- Evaluating drug positivity at the most commonly used BAC threshold of greater or equal to 0.10 g/100mL, 10.6% of the cases were positive for only Tier I drug(s), 2.8% were positive only for Tier II drug(s), 3.9% were positive for Tier I and Tier II and 17.3% were positive for any Tier I, Tier II or combination.
- 813 cases were identified to have BAC at or greater than 0.10 g/100mL, and drugs most commonly identified in those cases included THC, amphetamine and benzoylecgonine.

S12 Regional Toxicology Liaison Demonstration Project

Chris Heartsill, Kristin Burke, Sabra Jones, Regional Toxicology Liaisons, NHTSA Regions 5, 7, and 9, USA

Amy Miles, Regional Toxicology Liaisons, NHTSA Regions 5, 7, and 9, USA and Wisconsin State Laboratory of Hygiene, Madison, WI

chris@soft-tox.org, kristin@soft-tox.org, sabra@soft-tox.org, amy.miles@slh.wisc.edu

- The Regional Toxicology Liaison (RTL) Project established Toxicology Liaisons that supports states in NHTSA regions 5, 7, and 9 to assist with training, collaboration, and the standardization of testing across state laboratories as well as improving the reporting of data to understand the scope of the drug-impaired driving problem.
- The RTLs are involved in various committees to understand current trends in drugged driving, laboratory testing, and laboratory needs.
- The RTLs are engaged in meetings with stakeholders in each state, including NHTSA regional offices, State Impaired Driving Task Forces, State Traffic Safety Resource Prosecutors, and other regional liaisons, including Judicial Outreach Liaisons and Law Enforcement Liaisons.

S13 Rapid Extraction and Qualitative Screening of 30 Drugs in Oral Fluid at Concentrations Recommended for the Investigation of DUID Cases

Cynthia Coulter*, Margaux Garnier, Christine Moore. 9-Delta Analytical LLC, Ontario, CA

cindy.coulter@9-delta.com

- Oral fluid collection is easy, non-invasive, doesn't require medical personnel and can be collected at the roadside closer to the time of a suspected impaired driving offense.
- A liquid-liquid method using isopropanol, hexane, and ethyl acetate to extract drugs from the oral fluid-buffer mix

collected in a Quantisal[™] device, followed by LC-MS/MS was developed and validated screening of Tier I drugs (+ phencyclidine) at, or lower than, the recommended decision points for testing drugs in oral fluid.

- The method is relatively inexpensive, uses common laboratory instrumentation, has low solvent extraction volumes, and eliminates the need for immunoassay capability.
- Environmental impact was also considered as part of method development.

S14 Validation of novel cannabinoids including Δ 8-THC, Δ 10-THC, THC-O and THC-P in blood and oral fluid for DUID testing

Kristin Tidwell*, Jasmine Maxwell, Curt Harper, Alabama Department of Forensic Sciences, Hoover, AL

Cody Paseur, University of Alabama at Birmingham, Birmingham, AL

Kristin.tidwell@adfs.alabama.gov

- Validation of an LC/MS/MS Triple Quadrupole method to detect cannabinoids Δ9-THC, OH-THC, COOH-THC, Cannabinol, Cannabidiol, Cannabigerol, Δ8-THC, Δ10-THC, THC-O and THC-P in Blood and Oral Fluid
- Potential conversion of cannabidiol to Δ9-THC was evaluated. No conversion was detected at concentrations seen in casework at the Alabama Department of Forensic Sciences.
- Statistics regarding concentrations seen at the Alabama Department of Forensic Sciences in DUID casework were reviewed.

S15 Double back - two DUI cases involving lormetazepam, lorazepam, and fentanyl

Stephanie Olofson*, Colorado Bureau of Investigation, Arvada, CO.

Stephanie.Olofson@state.co.us

- A 57-year-old man was arrested twice in 18 hours for driving under the influence.
- The first incident was reported by a civilian and the second incident was a hit and run collision.

Test	Incident 1	Incident 2
SFSTs		
HGN	2 of 6	0 of 6
LOC	Present	Not Present
WAT	Unable to be Performed	8/8
OLS	Unable to be Performed	4/4
Romberg	Not Performed	Estimated 20 seconds
Lab Results		
Lormetazepam	Present	Present
Lorazepam	Present less than 5.0 ng/mL	5.7 ng/mL
Fentanyl	5.9 ng/mL	3.6 ng/mL
Norfentanyl	3.6 ng/mL	1.6 ng/mL

S16 Evaluating the practice of triple draws in Colorado with the OSAC guidelines for performing alcohol calculations in forensic toxicology

Vanessa Beall*, Colorado Bureau of Investigation, Arvada, CO.

vanessa.beall@state.co.us

- In Colorado, it has been standard practice for law enforcement agencies to collect three sequential blood draws, typically taken one hour apart, most often in felonious of fatal DUI investigations. Currently, at the Colorado Bureau of Investigation (CBI) all three are analyzed for ethanol. If an extrapolation is requested, a calculated elimination rate may be determined using the ethanol concentration from each draw and the elapsed time between the draws.
- This practice was evaluated based on the OSAC proposed standard, OSAC 2020-S-0003, Guidelines for Performing Alcohol Calculations in Forensic Toxicology which states an elimination rate calculated from 2 or more test results shall not be used in place of a range.
- In 2021, 8,309 cases were analyzed for ethanol/volatiles at CBI, 195 (2%) were triple draw cases. Of the triple draw cases, 147 had an ethanol result > 0.020 g/100mL for all three draws.
- The average calculated elimination rate was 0.020 g/100mL/hr. The average time between the offense and earliest draw was 2.5 hours. 86% of cases had a calculated elimination rate within the recommended elimination rate range (0.010 – 0.025 g/100mL/hr), 12 % of cases had a calculated elimination rate greater than the recommended range, and 2% of cases had an elimination rate below the recommended range. The greatest calculated elimination rate was 0.35 g/100mL/hr, determined in two cases.
- Moving forward, CBI toxicology will no longer use a calculated elimination rate for extrapolations, and when three blood draws are submitted by law enforcement, only the earliest blood draw will be analyzed for ethanol. Extrapolations may still be performed when requested based on a single blood draw and the recommended elimination rate range.

TO DROP OR NOT TO DROP: AN NPS QUESTION

Donna Papsun¹, MS, D-ABFT-FT, Kayla Ellefsen², PhD, Elisa Shoff³, MS, D-ABFT-FT – SOFT NPS Committee ¹NMS Labs, Horsham PA

²Travis County Medical Examiner, Austin TX ³Miami-Dade Medical Examiner Dept, Miami FL

Toxicology laboratories regularly review their analytical scope of testing to ensure they are staying current in today's drug market, adhering to standards of practice, and meeting accreditation requirements. The arrival of novel psychoactive substances (NPS) complicated these efforts due to the onslaught of emerging substances. Even though hundreds of substances have been reported to early warning systems, only a fraction of emerging compounds have gained popularity, therefore requiring validated toxicological assays. Significant resources are required to conduct NPS surveillance, identify appropriate prevalent targets, and incorporate them into defensible testing workflows. However, scope maintenance typically includes the addition of emerging substances while removing outdated compounds, since the nature of NPS is typically a short-lived lifespan. The careful curation of NPS scopes is essential to maintain the economics of running a laboratory. To further complicate the already complicated field of NPS, there has been a recent increase of detections of "outdated" NPS since 2020. These substances include those that emerged or were detected towards the beginning of the NPS era, around the early 2010s, and seemingly disappeared and/or never gained traction with illicit drug using populations.

Designer benzodiazepines (DBZD) are the subclass of NPS which have recently increased in variety and prevalence. In previous issues, new emerging compounds have been discussed, such as 4'-chloro deschloroalprazolam, which was first reported in 2022 (1,2). In addition to brand new compounds of this subclass, older generation DBZDs have been reported. Phenazepam was the first DBZD to be notified to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in 2007 (3). After its inclusion into analytical testing methods at the Travis County Medical Examiner (TCME) (Austin, Texas) in 2011, phenazepam was only detected in two postmortem blood samples in 2011, with no further detections in postmortem blood until July 2022. Phenazepam has been reported in less than six cases per year between 2017-2022 by NMS Laboratories. Pyrazolam, meclonazepam, and deschloroetizolam were notified to the EMCDDA for the first time all between 2012 and 2014 (3). Pyrazolam was reported by NMS Laboratories in nine postmortem samples collected between May 2020 and January 2022 with no additional detections after the last case collected in January 2022. Meclonazepam was reported in seven postmortem bloods collected and reported between 2020 and December 2021, with no further detections in 2022. Although testing for deschloroetizolam was implemented in 2016 by NMS Laboratories, following first notification to the European Union in 2014, the first official detection of the drug was in a postmortem case collected in May 2021. Between then and September 2022, an additional nine postmortem cases reported deschloroetizolam; 60% of the cases originated in Canada, and detections continue. This subclass expansion of both "old" and newly emerging compounds presents significant challenges to forensic laboratories as they attempt to properly calibrate their scopes to their own regional drug landscape.

Novel synthetic opioids (NSOs) account for roughly 18% of emerging compounds notified to the EMCDDA, which is far less than synthetic cannabinoid receptor agonists (SCRAs) and synthetic stimulants (4). Peak positivity for NSOs in the United States (US) overall likely ranged between 2016-2018, when fentanyl derivatives such as 2-furanylfentanyl, cyclopropylfentanyl, methoxyacetylfentanyl and para-fluoroisobutyrylfentanyl (FIBF) all flooded the market. Class-wide scheduling for fentanyl analogues enacted in the US prompted a dramatic decrease in fentanyl analogue positivity; however, this did create an opportunity for non-fentanyl related NSOs (i.e., nitazene subclass, brorphine, 2-methyl AP-237). Despite class-wide scheduling for fentanyl analogues, detections in toxicology samples persist, but vary regionally. Carfentanil has persisted at a higher positivity compared to other fentanyl-related substances, which may be attributed to its presence in the Canadian drug supply. At the TCME, the majority of NSO detections occurred during the 2017-2018 timeframe, with only a select few reemerging after their initial drop off in postmortem samples. Carfentanil was first identified in six postmortem blood samples from April 2017 to August 2018 and was not detected in this population again until March 2020. Since then, a total of 21 postmortem cases were found to contain carfentanil, with 19 cases in 2020 alone. The Miami-Dade Medical Examiner Department (MDME) experienced their highest number of NSO detections beginning in the summer of 2016 through the beginning of 2018, with a total of 208 postmortem blood samples positive for carfentanil, making it the most detected NSO at the MDME to date. Carfentanil was detected again in 2020, but only in two cases. Many other fentanyl derivatives, such as valerylfentanyl and butyrylfentanyl, have also been detected in the past two years, although positivity is significantly lower compared to peak reporting.

Acetylfentanyl and para-fluorofentanyl are two noteworthy case studies of fentanyl analogues. Acetylfentanyl was first detected back in the US in 2013 as an emerging analogue, but its continued presence is often attributed to being an artifact during the production of illicit fentanyl when detected in smaller concentrations relative to confirmed fentanyl (5,6). Acetylfentanyl was initially detected in postmortem blood samples collected at the TCME between July 2017 and December 2018 (N=5) and was not reported again until September of 2021. These recent postmortem acetylfentanyl identifications have been found in combination with fentanyl and/or fluorofentanyl and in lower concentrations than previously reported, which may be associated with its presence as a byproduct of illicit fentanyl manufacturing versus fentanyl analogue use itself. While most recent acetylfentanyl identifications at the MDME are also likely the result of the manufacturing process, one postmortem case in 2022 contained only acetylfentanyl, and was ruled an accidental death due to acute acetylfentanyl toxicity. Para-fluorofentanyl defies the trend of decreased fentanyl analogue positivity post core-structure scheduling, as positivity for this fentanyl derivative has increased since Q4 2020. Para-fluorofentanyl was originally synthesized in the 1960s and subsequently scheduled in the 1980s after an outbreak. Para-fluorofentanyl was considered one of the lesser-known fentanyl derivatives; it was only quantitatively reported six times by NMS Laboratories in blood samples between 2016- September 2020. However, positivity for para-fluorofentaryl has dramatically increased between December 2020 and September 2022. In 2021, para-fluorofentanyl accounted for 84% of NSO detections, far surpassing any other substance of that category. Its pervasive and frequent presence with fentanyl over a large geographical area points towards an intentional addition into the drug supply chain, as opposed to marketing and distribution of NPS from internet sales. Para-fluorofentanyl has also been detected by itself; a recent postmortem case at the TCME detected para-fluorofentanyl in mixed heart blood at 45 ng/mL and was ruled an accidental death due to the toxic effects of fluorofentanyl. For toxicology laboratories to maintain current with NSOs that are involved in a significant number of death investigations, scopes must include both "old" and new substances.

Synthetic stimulants are one of the oldest and largest subclasses of NPS. Within the US, the subclass of synthetic stimulants is typically dominated by one substance at a time, with distinct changes in positivity in response to international controls. N,N-dimethylpentylone is currently dominating the synthetic stimulant market; the shift from eutylone to N,N-dimethylpentylone was alerted by the sudden increase in positivity for pentylone. Pentylone was first reported around 2010, so a resurgence of detections was notable. Maintaining toxicology testing for pentylone proved advantageous despite its lack of positivity, as pentylone is a metabolite of N,N-dimethylpentylone and the sudden uptick sounded the alarm to the arrival of a new stimulant. Besides pentylone, mephedrone and alpha-PVP, two older stimulants, have been detected in the past few years, and not as harbingers for newer compounds. Mephedrone, a "first generation" synthetic stimulant, was reported in a Canadian postmortem case collected in August 2020, which marked the third year in a row of a singular detection in a postmortem case, but eight years after the first reported case by NMS Laboratories. Three postmortem bloods were also reported for alpha-PVP; two of the cases were collected in June 2021 from Utah and Idaho and a third case was collected in February 2022 from New York. Alpha-PVP was a popular synthetic stimulant between 2013-2017, with the last blood detections reported in 2018 before the sporadic cases in 2021 and 2022 were detected by NMS Laboratories. Despite its inclusion in analytical testing schemes at the TCME since 2013, alpha-PVP was only recently detected for the first time in a single postmortem blood sample in March 2022. While the MDME has not detected alpha-PVP since 2015, two other older stimulants, TFMPP (n=4) and MDPV (n=1), have been identified in 2022. In addition to these NPS stimulants, the MDME has also observed an unexpected increase in the last two years of more traditional stimulants and hallucinogens, specifically MDMA (n = 60) and psilocin (n=10). Of note, the average number of cases per year where MDMA was detected pre-COVID (2011-2019) versus during COVID (2020-Q2 2022), was four cases and 24 cases, respectively.

SCRAs are the largest group of NPS compounds, which have seen extensive turnover since 2008. First generation SCRAs include JWH-018 and JWH-073 with nomenclature that does not provide any kind of indication of structural elements. 5F-ADB and ADB-FUBINACA were the most prevalent synthetic cannabinoids in the postmortem population of Travis County, Texas back in 2017 and 2018, until a shift was observed towards 5F-MDMB-PICA, MDMB-4en-PINACA, and 4F-MDMB-BICA over 2019 through 2021. 5F-ADB was last identified in postmortem samples in November 2018, while

TO DROP OR NOT TO DROP: AN NPS QUESTION

ADB-FUBINACA was last detected in postmortem blood in October 2018. However, ADB-FUBINACA was recently identified in one postmortem blood sample in June 2022, nearly three and a half years after its last detection. The constant flux and diversity of this class of NPS, combined with the increasing difficulty in identifying the most recent generation of synthetic cannabinoids (i.e., CH-FUBIATA, BZO-4en-POXIZID, BZO-CHMOXIZID) make it challenging to adjust the scope of testing for these compounds.

Toxicology laboratories must maintain current scopes of analysis, to properly serve law enforcement, death investigation, and public health stakeholders. Monitoring and testing for NPS requires a significant investment from laboratories, in identifying an appropriate scope of testing without incurring too much unnecessary cost. This typically means continuous addition and removal of compounds as to not simply create a ballooning scope of testing. A ballooning scope creates analytical challenges for extraction and chromatography since many NPS subclasses involve a variety of compound structures. In addition, parent drugs may not serve as the ideal biomarker; therefore, metabolites and/or stability products may need to be considered when developing NPS testing scopes. Scope recommendations published by the Center for Forensic Science Research & Education (CFSRE) in conjunction with the SOFT NPS committee are a valuable resource for understanding the current NPS drug landscape, as well as understanding the speed of how NPS positivity can change (Scope Recommendations (cfsre.org). The current scope recommendations are based on information derived from a large body of surveillance work that covers many US states as well as some additional countries. However, an increase in data-sharing with more toxicology laboratories would assist in creating regionalized scope recommendations, as it is very clear NPS trends can vary geographically. It is possible that the re-appearance of "outdated" NPS may be tied to the volatility of illicit drug supply chains during the global COVID pandemic. This is speculative, as some substances, such as many of the fentanyl analogues, continue to be detected past peak positivity. It does, however, reinforce the need for constant vigilance in the field of NPS. The resurgence of "old" NPS coupled with emergence of "new" NPS create significant challenges for laboratories as they grapple with the demands of staying relevant but profitable.

Determining NPS scopes certainly requires thoughtful contemplation but with the added pressure of timely decision making. If one takes too long to decide on the inclusion of a compound, a particular NPS may have already experienced its lifespan before availability of toxicology testing. The development of high-resolution mass spectrometry (HRMS) workflows coupled with non-targeted data acquisition are vital tools in NPS surveillance. In the cases of NPS like para-fluoro-fentanyl and deschloroetizolam, these compounds experienced a renaissance before removal from analytical capabilities. In other words, everything "old" can be made "new" again.

References:

- Ellefsen K., Shoff E., Papsun D. (2022) New drugs on the block: Spring 2022 line-up. ToxTalk, 2, 10-17. <u>ToxTalk_Issue</u> <u>3 2022_Final.pdf (soft-tox.org)</u> (17 November 2022)
- Ellefsen K, Chang H, Shoff E, et al. (2022) The increasing scope of designer benzodiazepines: details on 4'-chloro deschloroalprazolam and clonazolam. ToxTalk, 3, 30-37. <u>ToxTalk_Issue 3_2022_Final.pdf (soft-tox.org)</u> (17 November 2022)
- 3. European Monitoring Centre for Drugs and Drug Addiction (2021), New benzodiazepines in Europe a review. <u>New</u> <u>benzodiazepines in Europe a review (europa.eu)</u> (17 November 2022)
- 4. United Nations Office on Drugs and Crime. (2022) Current NPS Threats: Volume V October 2022. <u>Current_NPS_Threats_V.pdf (unodc.org)</u> (17 November 2022)
- 5. Ogilvie L, Stanley C, Lewis L, et al. (2013) Acetyl Fentanyl Overdose Fatalities Rhode Island, March-May 2013. Morbidity and Mortality Weekly Report. 62 (34); 703-704.
- 6. Avedschmidt S, Schmidt C, Isenschmid D, et al. (2019) Acetylfentanyl: Trends and Concentrations in Metro Detroit. Journal of Forensic Sciences. 64(1): 149-153.

Submitted by: SOFT Postmortem Committee

The SOFT Postmortem Committee was founded in 2021 as an ad hoc committee to serve as a resource for medicolegal professionals and to promote collaboration, interdisciplinary research, and communication between forensic toxicologists, forensic pathologists and medical examiners/coroners, medicolegal death investigators, and law enforcement to assist in the determination of cause and manner of death. This is mainly achieved through workshops, trainings, and continuing education events.

In addition to organizing and presenting at a workshop with the NPS Committee on method of standard addition at SOFT this year, the committee is currently in the process of assembling a library of literature references and resources for the interpretation of postmortem toxicological results, postmortem redistribution, and analytical methodologies that support published ANSI/ASB standards that are related to postmortem forensic toxicology. It has also started to put together a survey for postmortem laboratories to see where they currently stand with meeting those standards.

During the open committee meeting held at SOFT, many great ideas for new workshops and continuing education events were discussed, including interpreting results from different types of postmortem matrices and the effects of postmortem redistribution of certain classes of drugs, along with identifying other groups that may benefit from trainings related to these topics. Two new members were welcomed to the committee – Dr. Jan Gorniak from the Clark County Office of the Coroner/Medical Examiner and Erin Worrell from the Denver Office of the Medical Examiner. In addition to this, the committee also wanted to share a summary of the excellent presentations that took place during the postmortem scientific session this year.

Prevalence of xylazine in overdose cases: an analysis of Miami-Dade County Medical Examiner case data

Rocio B. Potoukian^{*1}, Jennifer Gonyea¹, Elisa N. Shoff¹, Marissa J. Finkelstein¹, Anthony P. DeCaprio², George W. Hime¹, Diane M. Boland¹

¹Miami-Dade Medical Examiner Department Toxicology Laboratory, Miami, FL; ²Department of Chemistry & Biochemistry, Florida International University, Miami, FL

Xylazine is a sedative, muscle relaxant, and analgesic used for animals in a veterinary setting that has been increasingly observed in postmortem cases in Miami-Dade County, FL from 2015-2021. When mixed with fentanyl or heroin, is it commonly referred to as "tranq dope" or "sleep cut". Out of 119 cases in which xylazine was detected, 100% of the cases were also fentanyl positive. Its increasing prevalence in postmortem toxicology casework, especially as the demand for illicit fentanyl increases, can represent an upcoming public health crisis.

Fatal overdose involving the organophosphate insecticide malathion

Stephanie M. Marco^{*1}, Donna M. Papsun¹, Luke Kittson², Aaron Shapiro^{3,4}

¹NMS Labs, Horsham, PA; ²BC Coroners Service, Victoria, British Columbia, Canada; ³BC Provincial Toxicology Centre, Vancouver, British Columbia, Canada; ⁴Department of Pathology and Laboratory Medicine, University of British Columbia, Vancouver, British Columbia, Canada

An adult decedent with a history of COPD, cardiomyopathy, and hypertension was found next to a bottle of malathion, an organophosphate pesticide; however, treatment with atropine and pralidoxime did not improve the decedent's disposition, and death was pronounced 12 hours later. Hospital blood from the decedent was analyzed for cholinesterase activity and two malathion metabolites, dimethylthiophosphate and dimethyldithiophosphate, with the results confirming that the decedent was exposed to malathion prior to death. The collaborative decision-making process between death investigators and toxicologists in identifying appropriate toxicology testing was critical in determining the suspected cause of death.

The relationship between acetone and β-hydroxybutyrate (BHB) Levels in postmortem toxicology casework

William M. Schroeder II*, Jennifer L. Swatek, Kari M. Midthun

NMS Labs, Horsham, PA

POSTMORTEM COMMITTEE UPDATES AND SUMMARY OF POSTMORTEM SCIENTIFIC SESSION PRESENTATIONS AT SOFT 2022 ANNUAL MEETING

 β -hydroxybutyrate (BHB) is a ketone body produced in the liver when the body cannot efficiently utilize glucose as an energy source, resulting in ketoacidosis. Quantitation of acetone in postmortem cases is typically performed; however, acetone concentrations alone cannot be the sole indicator for the determination of ketoacidosis, and laboratories should routinely include BHB quantitation in postmortem testing panels when ketoacidosis is indicated. The relationship between acetone and BHB concentrations were evaluated in 747 postmortem blood samples. There appears to be no direct correlation between acetone and BHB concentrations, but casework has shown that BHB can be present at elevated concentrations without a reportable acetone result. This information, combined with case history, could provide a line of investigation in determining a cause of death.

Mitragynine-only deaths in North Carolina

Justin Brower*

NMS Labs, Horsham, PA

Mitragynine, the primary active alkaloid in Kratom, is an opioid agonist with an activity of approximately one-fourth that of morphine, but at low doses exhibits stimulant-like properties. Kratom advocates often claim that no deaths can be attributed to Mitragynine because of the presence of other drugs. Of 64 cases from the North Carolina Office of the Chief Medical Examiner with mitragynine concentrations >0.50 mg/L, 12 were mitragynine-only overdose deaths with no other drugs or alcohol reported (mean 2.36 mg/L, range 0.73 - 5.9 mg/L). Mitragynine-only fatalities exist, and to avoid missing these causes of death, laboratories should include mitragynine in their screening methods with a plan for confirmation and quantitation.

Fatal intoxication with o-desmethyltramadol (ODSMT)

Brent Dawson¹, Donald MacNeil², Laureen Marinetti^{*2}

¹Redwood Toxicology Laboratory, Santa Rosa, CA; ²Ascertain Forensics at Redwood Toxicology Laboratory, Santa Rosa, CA

O-desmethyltramadol is a pharmacologically active metabolite of tramadol with approximately 200 to 300-fold higher affinity for the mu opioid receptor than that of tramadol and gives rise to the opioid-based adverse drug effects of tramadol. The postmortem blood from a young male college student was analyzed and determined to contain 10.9 mg/L O-desmethyltramadol with no tramadol or N-desmethyltramadol detected. A review of the scene confirmed the presence of a product named ODSMT, which is readily available from vendors inside the United States and widely known by people who prefer to use opioids. With an approximate 0.3% cross-reactivity on a tramadol ELISA drug screening kit, laboratories may want to adjust their screening methods if they suspect O-desmethyltramadol may be used in the demographic they serve.

A 5-Year Review of PCP-Related Deaths in Dallas County

Lindsay Glicksberg*, Brittany K. Casey

Dallas County Southwestern Institute of Forensic Sciences, Dallas, TX

The prevalence of PCP from 2015-2020 in decedents in Dallas County and the surrounding areas in terms of demographical and toxicological information was evaluated. Of the 43,940 cases analyzed by the Toxicology Laboratory at SWIFS, 898 were positive for PCP, with 264 of those submitted by the Office of the Medical Examiner. Users were predominately black (92.1%) males (78.0%) in their late 30s to early 40s (median age 39 years). Ages ranged from 20 to 71 years old. PCP concentrations ranged from 0.02 - 2.33 mg/L (median 0.13 mg/L). PCP was the only drug identified in 30.5% of the cases, the remainder had up to nine drugs and/or metabolites present in the sample. Manner of death was most frequently ruled "accidental" (61.6%) followed by "homicide" (27.6%). In the accidental deaths, PCP toxicity attributed to 25.8% of the deaths; PCP was detected in 43.0% of accidental deaths where cause of death was the result of external forces (e.g., trauma, drowning, smoke inhalation).

SAMHSA ANNOUNCES SUPPORT FOR LABORATORIES INTERESTED IN HHS CERTIFICATION

The Substance Abuse and Mental Health Services Administration (SAMHSA) within the U.S. Department of Health and Human Services (HHS) establishes scientific and technical guidelines that federal agencies and drug testing facilities must adhere to as part of the Drug-Free Workplace Programs (DFWP). All drug testing for federally regulated employees must be performed at facilities accredited by HHS under the National Laboratory Certification Program (NLCP). Since the origination of the program all testing has been conducted on urine specimens. In October 2019 SAMHSA issued guidelines for the inclusion of oral fluid as a testing matrix.

To facilitate the accreditation of new laboratories into the program, SAMHSA is offering support for laboratories performing oral fluid testing, urine testing, or both, who are interested in becoming HHS-certified. The initial accreditation process is divided into three stages: the application, performance testing, and inspection. After successfully completing the application and any required remediation, the laboratory will be challenged through three performance test (PT) cycles, followed by a thorough onsite laboratory inspection of the facilities, procedures, and staff.

Each initial PT set contains 25 samples and is designed to challenge the laboratory's procedures and analytical methodology. The first initial PT set will be shipped once the laboratory's application has been accepted. The second PT shipment will be sent approximately three to four weeks after NLCP receipt and scoring of the first PT set results. The final PT shipment will coincide with the laboratory's initial inspection. The laboratory must successfully complete each PT cycle and receive an acceptable outcome on the initial inspection. At that time, the NLCP will recommend to HHS that the applicant laboratory be certified to perform regulated testing. After certification is received, the laboratory will have a follow-up inspection in three months. Maintenance inspections will occur every six months thereafter and PT cycles are sent on a quarterly basis.

SAMHSA will provide applicant oral fluid or urine laboratories with a short-term consultant at no cost to the laboratory). This consultant will work with the laboratory to perform a gap analysis prior to completing stage one of the accreditation process: the application. All consultants have been selected based on their extensive work with the NLCP and their in-depth program knowledge. Each short-term consultant is intended to assist laboratories in understanding the basic program requirements and identifying gaps that exist between their laboratory operations (e.g., facility, staffing, and processes) and HHS/NLCP accreditation requirements prior to submitting the application.

In addition to the sponsored short-term consultant, SAMHSA is offering additional financial support for oral fluid laboratories seeking accreditation. For a limited time, SAMHSA will waive the application fee, the fee for each of the three initial sets of PT samples, the initial inspection fee, and the three-month follow-up inspection fee.

For additional information on becoming an HHS-certified laboratory, contact the NLCP at NLCP@rti.org.

FRAMEWORK FOR SATISFYING ANSI/ASB STANDARD 036

Submitted By Denise N. Schiller, D-ABFT-FT, NMS Labs

I had the phenomenal experience of attending the 2022 SOFT Annual Meeting in Cleveland, Ohio. I really enjoyed all the workshops, platforms, posters, and discussions I had with individuals related to ANSI/ASB Standard 036. A theme I felt was perhaps overwhelmed with creating and maintaining documentation for audits. Each laboratory is really on its own to create processes and it takes time to get processes ironed out for each workplace. Another unique challenge laboratories may have is marrying the requirements of different agencies without creating disruption to their processes or jeopardizing a different requirement (ISO 17025 or ABFT). My personal background is that I have mostly been working on analytical method validations in a toxicology laboratory for about 8 years, working in toxicology since 2008. My hope is this framework helps someone interested in adding efficiency or standardization to any of their processes for validation documentation.

Standard Practices for Method Validation in Forensic Toxicology (ANSI/ASB Standard 036) outlines in section 11 the Documentation Requirements for Method Validation. These include:

- a) Scope
- b) Validation plan
- c) Description of all the parameters evaluated, if any of the parameters were not evaluated, then the reason shall be stated or justified
- d) Sample preparation steps to include concentrations and matrices
- e) Raw data or references to where the raw data are stored
- f) Results and calculations,
- g) Conclusions
- h) References
- i) Documentation of management review and approval

The validation records shall also contain specific details regarding the studies conducted, including:

- a) Individuals involved in the method validation
- b) Specific instrumentation
- c) Dates.

The validation will be the benchmark of that assays' performance. I would like to share a potential framework for satisfying the 036 criterion and supply the additional details I see as adding great value to validation documentation. When analytical problems arise, the validation details are frequently revisited. While the devil may be in the details, revisiting a thoroughly documented validation could also be salvation.

The requirements of 036 can be satisfied in documents with these core requirements:

- Validation protocol: This will include the analytical details of the assay.
 - (a) Scope Analyte, Matrix, Reporting Limits
 - o (c) Instrumentation and associated parameters for data acquisition and processing
 - o (d) Preparation of Reagents, Calibrator, Quality Controls, and Internal Standards
 - o (d) Unknown sample preparation and extraction steps
 - (h) References used to support the creation of the assay
 - A version of this file should be saved as .pdf, it should in a format that is not editable
 - (b) Validation plan: This will include the details of each validation run
 - A sequence for each planned day of the validation. Each sequence should include:
 - Analyst Name, Date, Instrument Sequence Name, Project Name
 - Serial Number and/or lots of each material, reagent, equipment utilized
 - System suitability acceptance criteria
 - Batch sequence including details of how each sample is prepared with target values
 - Any additional observations by the analyst (i.e. sample color, consistency, pH etc.)
 - The validation is a unique opportunity to challenge the assay robustness in a controlled way. Clear documentation helps understand if any of these challenges effect analytical performance. This can be achieved by:
 - Utilizing multiple lots of consumable materials (i.e., SPE columns)
 - Utilizing multiple pipettes
 - Utilizing multiple staff to perform the extractions
 - Utilizing multiple lots of manufacturer and prepared reagents
 - Utilizing multiple lots of analytical columns and/or different instrumentation
 - Injecting batches of different assays common to that instrument before and after the validation batch
- Validation data:
 - o Instrument sequences to detail instrument and vial names
 - \circ Documentation of what runs on the instrument before and after the validation batch
 - \circ (e) Raw data ideally exported into excel
 - Assay reports to include chromatography (if applicable)
 - .pdf is ideal, it should in a format that is not editable
- Validation reports:
 - (f) Results and calculations for each validation study

- o References to the raw data and assay reports
- o References to the Certificates of Analysis for standard materials
- (g) Conclusions:
 - Per study and the analyte validation as a whole
- o (i) Documentation of management review and approval

Additional documentation helpful for future references:

- Preparation documentation of the Calibrator, Quality Controls, and Internal Standard lots used in validation
 - An inventory of remaining materials at the end of the validation period
- Meeting minutes or important emails related to that project
- Estimate time tracking related to the work and associated batch sizes
- Agency proficiency concentration and analyte performance documentation
- Quality control chart to document performance of each validation batch throughout the validation which may include more than those included within the validation report
- For multi-analyte methods a performance summary of the method to see trends across the analytes
- For analytes with existing testing in your laboratory, documentation of the current methods limitations. This allows you an additional opportunity to document the resolution of those limitations.

FORTOX THE FORENSIC TOXICOLOGY R USERS' GROUP



Welcome to FoRTox, the forensic toxicology R users' group!

Submitted by Brigitte Desharnais, PhD – Laboratoire de sciences judiciaires et de médecine légale

Are you an R coder*, or interested in learning how to code in R? Do you wish you could connect with other R coders in forensic toxicology? Search no more, the forensic toxicology R users' group (FoRTox) is here for you! Inaugurated in September 2022 and now 89 members strong, this group aims to answer the needs of the R forensic toxicology community and create a community to exchange tips, tricks and applications. While you can get far by Googling "How to [...] in R", it helps to be able to discuss with like-minded people who know what are calibration curves, internal standards and retrospective HRMS analysis (amongst other specialized concepts)!

The group is in its infancy, so currently its main feature is a Slack workspace where members can exchange useful information and ask for help. Hopefully, as months go by, this group will grow to include lists of resources, a website and who knows, in-person meetings at the main forensic toxicology conferences. If you would like to be a part of this exciting project, please sign up for the group by filling out this form: <u>https://forms.gle/Qv5e-WbZX9dUgeFwk9</u>

If you've never coded in R, but are interested in learning – don't worry, you've got your place in this group as well! Hopefully you can gather useful resources to start your R journey. Currently, about a third of the membership is in this situation, so you won't be alone!

https://www.r-project.org/about. html

*PS. We're such an open-minded group of people – we do accept Py-thon coders too!

OSAC Process Updates

Organizational improvements to address "process" and maximize efficiency within the OSAC are ongoing. These include improvements to the Registry process, streamlining of public comments, and a revised process for scientific and technical review (STR). Some of these changes are highlighted below:

<u>Revisions to existing published standards.</u> Revisions will be made through the SDO's process. Once published, the standard will go through the Registry Approval Process for SDO Published Standards. This only applies to revisions, not new standards.

<u>Joint development of standards at the SDO</u>. OSAC SCs are permitted to jointly develop documents under partnership with their relevant SDO. These documents will go through the Registry approval process for SDO published standards and will not be subject to the 'OSAC Proposed Standard' process. The spirit of this initiative is to have documents jointly developed by OSAC and an SDO in concurrent collaboration. It's NOT to have an OSAC subcommittee develop a document and then send it to an SDO.

<u>FSSB review</u>. The FSSB will no longer vote to approve standards for the Registry. Instead, the FSSB will review both SDO published and OSAC Proposed Standards and determine if a more in-depth review is needed. If a petition for additional review is not submitted within 21 days from when the standard was introduced to the FSSB, it will proceed directly to the Registry.

FSSB comments will be provided to the SC for consideration. Revised OSAC Proposed Standards can return to the FSSB (through the OSAC Program Office) for final FSSB Review.

OSAC Public Comment

FSSB approved that the requirement for an OSAC-managed comment period for Registry approval (of SDO published standards) can be met during the SDO's public comment period. This allows comments to be submitted during the SDO development process, before publication. This enables upgrades to be directly incorporated into the standard rather than receiving comments after its published.

OSAC Program Office (OPO) is tracking open comment periods at SDOs to determine which standards meet this criteria. Those that do, will not go through a second comment period during the Registry approval process.

OSAC and SDO open comment periods

Any document going through the SDO Published Registry Approval Process that has had a public comment period at an SDO (not including a recirculation), will not go through the OSAC open comment period.

Revised STR Process

These improvements allow the subject matter experts (SMEs) on the STR to submit comments during OSACs open comment period. The SC adjudicates all of the comments (public, resource task groups, STR subject matter experts) all at once.

SCs can meet with the SMEs for a comment discussion meeting if needed; this replaces the previous STRP (scientific and technical review panel) report.

Other Updates

Other significant updates include the authorization of SDO funding in the CHIPS and Science Act of 2022, which was signed into law by President Biden August 25, 2022. This includes \$2M annually for NIST to administer a competitive grant for nongovernmental standards development organizations to disseminate voluntary consensus standards free of charge to the public.

The CHIPS and Science Act *authorizes* NIST to establish the grant program; *appropriations* are still pending at this time. Through the Consortium of Forensic Science Organizations (CFSO), the AAFS submitted letters of support to the NIST Director and Secretary of Commerce in September. This funding will greatly benefit the forensic toxicology community that currently relies upon the Academy Standards Board (ASB) as its SDO.

Respectfully submitted,

Sarah Kerrigan, SOFT FSSB Representative

SOFT MEMBERSHIP

ARE YOU INTERESTED IN MEMBERSHIP? ARE YOU READY TO PROMOTE YOUR MEMBERSHIP?

SOFT is always accepting applications for membership. We offer five membership types: Student, Associate, Full, Emeritus, and Retired. All membership requirements and applications can be found on the SOFT Membership Page below.

MEMBERSHIP BENEFITS

- A mailed print subscription of the Journal of Analytical Toxicology (JAT).
- Reduced registration fees for SOFT's Annual Meeting.
- Reduced registration fees for SOFT webinars.
- FREE participation in the SOFTopics discussion group.
- Eligible for SOFT committee membership.
- Eligible for participation in SOFT's

- Professional Mentoring Program.
- Free participation in JAT Editor's Choice continuing education opportunity.

FEE TO APPLY

Your application fee will be transferred to your first annual dues payment once you are approved by the membership committee.

- Full/Associate Membership \$125
- Student Membership \$40
- Promotion: \$0
- Retired/Emeritus Membership: \$0 dues/ \$40 for JAT Subscription

PROMOTION

If you are currently a member of SOFT and would like to promote to the next membership level, you can do so by completing the Promotion Application **HERE**. There is no fee to promote your membership, but you will still be responsible for your annual dues payment if you have not already completed it.

MEMBERSHIP COMMITTEE MEMBERS

CHRIS HEARTSILL - CHAIR KARI MIDTHUN HEIDI CHRISTENSEN KATHERINE DOZIER

LEARN MORE HERE

TOXICOLOGY SECTION AT AAFS 2023



Join the Toxicology Section at AAFS 2023!

Source: Madeleine J. Swortwood, Ph.D., AAFS Toxicology Section Chair

On behalf of the Toxicology Section, I am pleased to invite you to join us in Orlando for the Diamond Jubilee 75th Anniversary of AAFS from February 13-18, 2023 at the Rosen Shingle Creek Resort. Early bird <u>registration</u> is now open, and hotel reservations and flight discounts are available <u>online</u>. We are thrilled to have an excellent <u>Tox-</u> <u>icology scientific program</u> that attests to this year's theme of "Science Works". Our Annual Lectureship in Toxicology will be presented by Karen McDonald, the lead for Toronto's Drug Checking Service from the Centre on Drug Policy and Evaluation. In addition, we will have sessions dedicated to NPS, general toxicology, Path/ Bio joint session, Drugs & Driving Special Session (Friday morning), and our annual Postmortem Pediatric Toxicology Session (Friday afternoon).

Be sure to Save the Date for the Toxicology Section Luncheon (preceding the Toxicology Section Business Meeting) on Wednesday, February 15, 2023 when we will honor our well-deserving award recipients. This year we are excited to bestow the following awards:

- Rolla N. Harger Award: Marc LeBeau
- Irving Sunshine Award: Rebecca Hartman
- June K. Jones Scholarship: Alaina Holt

In honor of the 75th anniversary of AAFS, President Fulginiti invites you all to the President's 75th Anniversary Celebration on Friday February 17, 2023 from 7-10pm. This ticketed event (\$35) is *open to all*, including your guests even if they are not registered for the main conference. There will be food, entertainment, and more to celebrate the Diamond Jubilee year!

We look forward to a tremendous scientific program brought to us by all the hard work of our Program Chair Diane Boland and Program Co-Chair Dayong Lee!

NIST-AAFS COOPERATIVE AGREEMENT



NIST-AAFS Cooperative Agreement RESOURCES AVAILABLE

In 2021 NIST and AAFS announced a <u>Cooperative Agreement</u> to support the development of tools, training and resources to advance standards implementation and awareness across all forensic disciplines and standards developing organizations (SDOs).



Forensic toxicology is well represented and there are numerous resources available.

Factsheets on various standards have been developed, and these describe the purpose of a standard in terms that a lay person can understand. They describe why the standard is important, benefits of adoption, how it is used, and key elements. Use the QR code to the right to access factsheets.



<u>Checklists</u> are <u>now available</u>. Currently nine factsheets and checklists are available for forensic toxicology. Laboratories that are implementing, or have already implemented these standards are encouraged to use this resource to document conformance to a standard within their organizations. AAFS Checklists reduce the redundancy in effort as many individual labs developed their own in-house auditing tools. Checklists were developed under the direction of Laurel Farrell (past SOFT President and retired Senior Director of accreditation for forensic programs at ANAB). The checklists can be used to show objective evidence of adoption, identify gaps, or track progress towards adoption. They were developed collaboratively with input from numerous organizations and quality management personnel. Checklists are Excel-based and training on their use is available online. Additionally, there will be a free half-day Special Session at the upcoming AAFS Meeting in Orlando, **FL** on checklist use and application in an operational setting. The special session entitled "Implementation of Standards: OSAC Registry Checklists" is scheduled for Tuesday Feb 14th 8:00 AM – 12 PM. There is no charge to attend, but pre-registration is recommended. Checklists are being added as new standards are added to the OSAC Registry. Alternatively, you may subscribe to updates on checklists so that you are notified when new checklists become available. Use the QR code to the left to access checklist, links to training, subscribe, and more!



Discipline specific <u>training</u> is also available. Jennifer Limoges, who also

serves on the NIST-AAFS Presidential Ad Hoc Committee, has taken the lead on training resources in toxicology. Several on-demand trainings and webinars are now available on the main Standards Resources and Training page. You do not need to be an AAFS member to access these resources. On-demand training can be viewed through "AAFS Connect" at no charge. AAFS Connect is the hub of digital forensic science content provided by AAFS. Members can access material directly from their account portal, and non-members can create an account from the AAFS website at no cost. The online and on-demand trainings are eligible for continuing education. Recent webinars that are now available on-demand include Standard Practices for Method Validation in Forensic Toxicology, An Introduction to ANSI/ASB Standards 119, 120, and 121 (regarding scope and sensitivity documents), and Standard Practices for Measurement Traceability in Toxicology. More are on the way! Use the QR code to the right to access training.

Finally, remember that this collaboration between AAFS and NIST to promote OSAC Registry standards provides tools, training and resources for multiple disciplines, from anthropology to wildlife forensics. Please be sure to share the resource with others in your organizations that might benefit.

Respectuflly,

Sarah Kerrigan Chair, NIST-AAFS Presidential Ad Hoc Committee Chair

IN MEMORIAM



Robert Burns Forney, Jr. July 16, 1945 - December 4, 2022

Robert Burns Forney, Jr., Ph.D., age 77, of Toledo, died peacefully at home on December 4, 2022, with his loving family by his side.

Bob was passionate about his family. He delighted in his wife Debbie, and together they served the Lord for 36 years. He considered each of his five children to be a blessing from the Lord. He loved them. And they grew up in a family filled with faith, adventure, music, affection and honor.

He earned his undergraduate degree from Indiana University in 1967. He then served three years in overseas public health as a Peace Corps volunteer in Southeast Asia, primarily in Thailand, during the Vietnam War. He was fluent in the Thai language and hiked to remote villages as a part of a Malaria Eradication team. It was while he was bushwhacking through the jungle that he determined to pursue a career first and foremost to make a contribution - to leave society better than he found it. When he returned home, he followed in his father's footsteps by completing his Ph.D. in Toxicology at Indiana University School of Medicine in 1974. Dr. Forney completed his post-doctoral fellowship in Forensic Toxicology at the Case Western Reserve University School of Medicine and the Office

of the Cuyahoga County Coroner in Cleveland from 1974-76.

Dr. Forney served as the Chief Toxicologist at the Office of the Lucas County Coroner from 1976-2022 and was the Director of Toxicology and the Poison Control Center at the Medical College Hospital from 1976-2003. He was grateful to have capable toxicologists working with him in his toxicology lab. As a Forensic Toxicologist he was an expert witness in criminal and civil cases throughout the United States. Dr. Forney wrote numerous abstracts and research articles in his area of expertise over his career.

He was a gifted teacher and enjoyed instructing medical students and residents, as well as toxicology, pharmacy, nursing, allied health, law, and criminal justice students. He often was asked to speak in various high schools and community forums. His instruction was straightforward and from the heart.

Some of his appointments included Clinical Associate Professor at the Medical College of Ohio School of Medicine, Department of Pathology and the School of Allied Health; Adjunct Associate Professor at the University of Toledo's College of Pharmacy and College of Law; and Adjunct Associate Professor at the Thomas Jefferson University Graduate School of Biomedical Ethics. Dr. Forney was a Diplomat, American Board of Forensic Toxicology (Certif. No. 081, April 15, 1978); a Fellow at the American Academy of Forensic Sciences; Past Chair of the Executive Board, Alcohol and Drug Impairment Division (formerly COAD), National Safety Council; Past Chair of the Social and Behavioral Factors Subcommittee, ADID, National Safety Council; Co-Chair of the Alcohol Section, 1999 Meeting of the International Association of Forensic

Sciences; Member of the Society of Forensic Toxicologists; and Member of the International Association of Chemical Testing. In 1994, he had the honor of taking his father's position on the faculty of The Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation. In fact, Dr. Forney paid tribute to his father, calling him a "stout-hearted man who gave me a love of life, science, public service and him."

Some of his awards included Teaching Excellence at the Medical College of Ohio in 1980; Honorary Life Member of Phi Kappa Phi Fraternity in 1982; Outstanding Leadership - Toledo/Lucas County CARES in 1984; Good Citizenship Citation from Michigan State Police in 1984; The Kurt M. Dubowski Award from the International Association of Chemical Testing; and the Robert F. Borkenstein Award from the National Safety Council in 2013.

Contributions in Bob's name are suggested to the Christ the Word Benevolence Fund in care of the church or the Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation (please make checks out to the "Indiana University CSLA Foundation" and send to Barry Logan, Robert Forney Jr. Memorium, c/o CSFRE, 2300 Stratford Ave, Willow Grove, PA 19090).



DON'T MISS AN ISSUE OF JAT!

PLEASE SEND YOUR ADDRESS UPDATES TO THE SOFT OFFICE SO WE CAN UPDATE YOUR ACCOUNT WITH JAT. PLEASE EMAIL <u>CC@SOFT-TOX.ORG</u>

FOLLOW SOFT ON SOCIAL MEDIA!





2022 COMMITTEE CHAIRS

APPLIED ANALYTICAL TOXICOLOGY COMMITTEE: REBECCA

WAGNER AND WAYNE LEWALLEN

AWARDS COMMITTEE: TIM ROHRIG

CFSO LIAISON: TIM ROHRIG

COMMUNICATIONS COMMITTEE: MATT JUHASCIK

CONTINUING EDUCATION COMMITTEE: ROBERT JOHNSON

CULTURE, VALUES AND DIVERSITY COMMITTEE: SAMANTHA TOLLIVER AND GAIL COOPER

DRUG FACILITATED CRIMES COMMITTEE: LISA REIDY

DRUGS & DRIVING COMMITTEE: DAYONG LEE AND NICK TISCIONE

ETHICS COMMITTEE: MADELINE MONTGOMERY

FINANCE COMMITTEE: TATE YEATMAN

MEETING RESOURCE COMMITTEE: MARC LEBEAU

MEMBERSHIP COMMITTEE: CHRIS HEARTSILL

MENTORING COMMITTEE: KIM SAMANO AND COURTNEY WARDWELL

NOMINATING COMMITTEE: AMY MILES

NPS COMMITTEE: DANI MATA AND KAYLA ELLEFSEN

ORAL FLUID COMMITTEE: CURT HARPER AND MADELEINE

POLICIES & PROCEDURES COMMITTEE: CHRIS HEARTSILL

POSTMORTEM TOXICOLOGY COMMITTEE: JOE KAHL AND SAMANTHA TOLLIVER

PUBLICATIONS COMMITTEE: STEPHEN RASO

SOFTOPICS: DANI MATA, VANESSA MENESES, AND ALANNA DEKOROMPAY

TOXICOLOGY RESOURCE COMMITTEE: AMY MILES

YOUNG FORENSIC TOXICOLOGISTS COMMITTEE: AMANDA

RAUSCH

FUTURE SOFT MEETINGS

2023 - GAYLORD ROCKIES, DENVER, CO OCTOBER 29–NOVEMBER 3, 2023 DAN ANDERSON AND VANESSA BEALL

2024 - UNION STATION, ST. LOUIS, MO OCTOBER 27–NOVEMBER 2, 2024 SARAH RILEY AND JUSTIN POKLIS

> 2025 - PORTLAND, OR OCTOBER 26-OCTOBER 31, 2025 TBD

2026 (SOFT/TIAFT) - CHICAGO, IL SEPTEMBER 19-24, 2026 LUKE RODDA AND ANDRE SUKTA

TOXTALK

TOXTALK[®] is the official publication of the Society of Forensic Toxicologists and is published quarterly. To submit articles and advertising opportunities please email CC Watson cc@soft-tox.org

2023 DEADLINES FOR CONTRIBUTIONS:

ISSUE 11 SUBMISSION DUE BY : JANUARY 18 PUBLISHING: FEBRUARY 15

> ISSUE 2: SUBMISSION DUE BY : APRIL 28 PUBLISHING: JUNE 7

ISSUE 3: SUBMISSION DUE BY : AUGUST 14 PUBLISHING: SEPTEMBER 8

ISSUE 4: SUBMISSION DUE BY : NOVEMBER 17 PUBLISHING: DECEMBER 13

CONTACT SOFT

EXHIBITOR/SPONSORSHIP: exhibitor@soft-tox.org

> MEMBERSHIP: cc@soft-tox.org

SOFT WEBSITE: soft-tox.org



SOFT OFFICE 1955 W. BASELINE RD. STE 113-442 MESA, AZ 85202

GENERAL INFORMATION: PH: 480-839-9106 E: info@soft-tox.org