To me, 2020 was the rain and 2021 has become the rainbow. We are less than 90 days away from the annual SOFT meeting and planning is full steam ahead. I have the privilege of sitting in on the Planning Committee meetings and I am so impressed with all of the hard work everyone is putting in to ensure this will be a robust and memorable meeting. The Scientific Chairs, Ken Ferslew and Rebecca Hartman are hard at work building a solid scientific program. Curt Harper and Jarrad Wagner have been overseeing the workshops as they monitor the progress of each one and keep everyone on task. Watching Erin Karschner and Jen Colby lead the effort has been so inspiring and I can’t wait for you all to experience the fruits of their labor!

The SOFT Executive Committee met in Phoenix at the end of June. I can’t tell you how enjoyable it was to be able to meet face to face and catch up with everyone. We had a productive two days going over current business and revisiting the 2018 Strategic Plan which Michelle Peace spearheaded when she was SOFT President. Many of the goals in the Strategic Plan have been accomplished or are no longer relevant due to the Covid pandemic and today’s ease of virtual learning. An item that was discussed, and

“The way I see it, if you want the rainbow, you have to put up with the rain” – Dolly Parton

INSIDE THIS ISSUE

PRESIDENT’S MESSAGE ................................................................................................................... 1-2
FROM THE EXECUTIVE DIRECTOR’S DESK ......................................................................................... 3
ANNUAL MEETING UPDATE - NASHVILLE ........................................................................................ 4-9
YOUNG FORENSIC TOXICOLOGISTS (YFT COMMITTEE) ............................................................. 10-11
NOMINATING COMMITTEE ........................................................................................................... 11-13
MENTORING COMMITTEE ........................................................................................................... 11-13
2021 AWARD WINNERS ............................................................................................................... 14-15
THE ROLE OF ADDITIVES IN BLOOD ALCOHOL ANALYSIS ...................................................... 17-18
AAFS UPDATE AND CAT WEBINAR .............................................................................................. 19
JAT INFORMATION ........................................................................................................................ 20
SOFT INFORMATION ..................................................................................................................... 21

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

STAFF
EXECUTIVE DIRECTOR
Beth Olson, MBA
OPERATIONS AND SOCIAL MEDIA MANAGER
CC Watson
SOFT OFFICE
1955 W. Baseline Rd., Ste 113-442
Mesa, AZ 85202

PRESIDENT
Amy Miles, B.S.
PRESIDENT ELECT
Robert Sears, M.S., F-ABFT
TREASURER
Tate Yeatman, M.S., F-ABFT
SECRETARY
Erin Spargo, Ph.D., F-ABFT
PAST PRESIDENT
Sumandeep Rana, Ph.D.
DIRECTORS
Chris Heartsill, B.S., D-ABFT-FT
Madeline A. Montgomery, B.S., D-ABFT-FT
Andre Sukta, M.S.F.S.
Philip M. Kemp, Ph.D., F-ABFT
Fiona Couper, Ph.D.
Madeleine J. Swortwood, Ph.D.
COUNSELORS
Michael L. Smith, Ph.D., F-ABFT
Amanda Jenkins, Ph.D., M.Sc., D-ABC, F-ABFT
ultimately voted on by the full Board, was a donation to the Academy Standards Board (ASB). The SOFT Board unanimously agreed to donate $3,000 to the ASB in support of their efforts in developing the standards that are being implemented in many forensic toxicology laboratories across the country. We greatly appreciate the time and effort by the ASB and look forward to seeing what documents will be produced next.

In May, many of you participated in a survey created by SOFT’s Toxicology Resource Committee. The committee received an 88% response rate on the survey, which is fantastic! The committee will be meeting in July to discuss the results and decide the next steps. In doing an initial review of the survey data, there are a few areas that the committee may be able to tackle right away while other initiatives will take some time. We will be building on your survey responses and looking for ways to provide resources and connections for laboratories to external partners that will be essential in sustaining current and future toxicology testing efforts.

In December 2020, I was asked as the soon-to-be President of SOFT to represent our organization in a stakeholders meeting coordinated by the Safe States Alliance. The focus of the meeting was to understand the needs of those that participate and provide data for the National Violent Death Reporting System (NVDRS). Since the meeting in December, SOFT has been asked to sit in on meetings with various members of US Congress to request support for the further and increased funding of NVDRS. It is important for SOFT to have a presence at the NVDRS meetings to stress the critical role toxicology testing plays in death investigations and data reporting across the country. During the meetings we discuss the incongruous funding toxicology laboratories receive and how that impacts the laboratory’s ability to perform comprehensive, timely testing. SOFT will continue to be involved in this effort and advocate for our laboratories and their testing needs.

This is my last submission to ToxTalk before the SOFT meeting! I hope to see many of you there. It will be a wonderful time to reunite, reconnect and take in the latest science from colleagues in our field. Be sure to bring your rhinestones!

AMY MILES, B.S.
SOFT PRESIDENT

You’re Invited!
TO THE:
Rhinestone Toxicologists Banquet

President Miles invites you to join us on Thursday, September 30, 2021 in Nashville, TN for the Rhinestone Toxicologists Banquet. Enjoy a plated dinner, drinks, and dancing! Cocktail attire is encouraged and don’t forget to show us your bling! Register below!
In May, CC and I, along with the Nashville hosts Erin Karschner and Jen Colby, and Ann Marie Gordon (Food and Beverage Coordinator) and Frank Wallace (AV Coordinator) visited the Gaylord Opryland for a pre-planning visit for the Annual Meeting. The hotel was bustling, and they were hosting a 600-attendee meeting while we were there.

I’d like to take this opportunity to discuss what attendees can expect at this year’s meeting.

We found that Nashville was nearly mask-free with a few exceptions, including the hotel staff. Since regulations vary so much by state and county, we would like attendees to be prepared for the fact that Nashville will likely not be requiring masks for vaccinated folks by the time we meet.

While we will not be checking vaccination status for attendees, we hope that as a close community everyone will respect the health of all attendees by preferably being fully vaccinated by the time of the meeting, or strictly adhering to masking and distancing guidance if vaccination is not possible.

We have instituted several changes in the set up for this year’s meeting for the comfort and safety of this year’s attendees.

• The Exhibit Hall is laid out differently than usual, with spaces between each of the booths.

• In addition, food and beverage functions will still be held in the Exhibit Hall, but in a separate area designated for eating and drinking.

• We will also allow more space at banquet tables and workshop tables than usual.

• Our scientific sessions will have the usual theater set up for seating, however, we will have distanced seating available for those who need it.

• The off-site event at Pinewood Social on Wednesday evening will be an indoor/outdoor event. While there won’t be any distancing option inside the venue, those who prefer can participate on the large outdoor patio.

Despite these changes, all the programs you’ve come to expect at SOFT are back! The YFT Symposium, workshops, lunch and learns, opening reception, scientific sessions, off-site event, Fun Run, business meeting, President’s Banquet…… it’s all happening! I’d also like to point out a few new (and exciting!) happenings at this year’s meeting.

• SOFT recently formed a Postmortem Committee, chaired by Joe Kahl and Samantha Tolliver. This committee will have an open committee meeting from 5:30-6:30 pm on Tuesday, September 28. If you’re interested in attending, please check the location in the mobile app or on your agenda upon arrival.

• On Wednesday, September 29, we will hold a breakfast for first-time attendees. Board members and other SOFT representatives will attend to meet, greet, and answer questions with our newbies.

• In September, we will be holding our first “What to Expect at SOFT” webinar. This program will be held live and also available on-demand. This program will be a must for first-time attendees to familiarize themselves with SOFT, but even if this is your 2nd or 10th or 40th SOFT meeting, it will be fun and useful to get an overview of this year’s program.

• Last year, for the 50th Anniversary meeting in San Diego, we planned a ceremony honoring the past presidents of SOFT. Since the meeting was canceled, we will be holding the Presidential Medallion Ceremony at this year’s meeting, just after the opening plenary session on Wednesday, September 29.

• This is also the inaugural year of SOFT’s new Annual Awards! Please attend the SOFT Business Meeting on Thursday, September 30 to recognize the winners of the SOFT Research in Forensic Toxicology Award, SOFT Young Forensic Toxicologist Service Award, SOFT Teaching and Mentoring Award, and the SOFT Distinguished Service Award.

We are expecting about 800 attendees for this year’s meeting based on our current level of room reservations and registrations.

If you have any questions about what to expect, please attend our September webinar and/or contact myself or CC in the SOFT office.

BETH OLSON
SOFT EXECUTIVE DIRECTOR

EMAIL BETH OLSON
EMAIL CC WATSON
REGISTER FOR SOFT!
Are you excited for our first in-person meeting in two years? It’s hard to believe it has been that long!

Our Scientific Program Coordinators, Rebecca Hartman and Ken Ferslew, have been very busy building an incredible program. There are a total of 50 oral and 85 poster presentations for this year’s meeting. We would like to send a gigantic thank you out to everyone who submitted and volunteered to review abstracts.

Workshop Coordinators, Jarrad Wagner & Curt Harper, have put together a fantastic array of workshops. There are 3 full-day and 10 half-day workshops to choose from. To review the workshop options, please click here.

On Wednesday morning following the plenary session, we will have a special ceremony to award honorary medallions to Past Presidents of SOFT. Don’t miss this important event celebrating the service of these prominent figures in our field.

The Wednesday evening off-site event will be held at Pinewood Social, an indoor/outdoor gathering spot in downtown Nashville. Join us for some amazing food, craft cocktails, and a game of bocce. If you are so inclined, you can dip your toes in the wading pools. Afterwards, you will have time to take in the sights (and sounds) of Broadway, an area famous for its neon-lined streets and live music.

Thursday evening will be a night to remember at the President’s Reception. Get out your ten-gallon hats, cowboy boots, and sparkles and join President Amy Miles for the Rhinestone Toxicologist Banquet. After dinner, we will dance the night away with the Downtown Band, a 10-piece band that is sure to have everyone on their feet.

SOFT meetings are successful due to the sacrifices and efforts of so many. We want to thank our planning committee and the SOFT office staff for their tireless efforts and for entering into the unknown with us this year as we planned this event. If you are interested in volunteering at the meeting, there are opportunities to assist with the scientific program, workshops, fun run, audio/visual, food and beverage, and registration. Please click here to volunteer.

REGISTER HERE

HOTEL ROOM RESERVATIONS

EXHIBITOR INFORMATION

IMPORTANT DATES AND DEADLINES

• Registration Deadline to Avoid Late Fee, August 2, 2021
• Registration Deadline to Avoid On-Site Registration Fee, Sept. 1, 2021
As we prepare to see each other in person, our foremost priority will continue to be the safety of our attendees. The COVID guidelines portion of the website will be updated as the meeting approaches and as guidance changes. We will follow WHO, CDC, and local health authority guidance and appreciate your cooperation in keeping each other safe and healthy.

We cannot wait to see you in Nashville!

Erin and Jen

SEE YOU IN NASHVILLE!
Thank you to the soft 2021 sponsors and exhibitors! We appreciate your support of SOFT!

**TIER 1 SPONSOR**

**Agilent Technologies**  
**Randox**  
**SCIEX**  
**Shimadzu Scientific Instruments, Inc.**  
**Thermo Fisher Scientific**  
**UCT**

$15,500

**TIER 2 SPONSOR**

**Apollolims**  
**Axiom Diagnostics, Inc.**  
**Campbell Science**  
**Immunoanalysis**  
**Kura Biotech**  
**Lipomed**  
**MilliporeSigma**  
**Restek Corporation**  
**Waters**

$7,500

**TIER 3 SPONSOR**

**Biotage**  
**Golden West Diagnostics, LLC**  
**UTAK**

$3,500
2021 HOSTS

JEN COLBY
ERIN KARSCHNER

SCIENTIFIC PROGRAM COORDINATORS
KEN FERSLEW
REBECCA HARTMAN

WORKSHOP PROGRAM COORDINATORS
JARRAD WAGNER
CURT HARPER

EXHIBITOR LIAISON
LIZ KIELY

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

YFT CHAIR
VANESSA MENESES

VOLUNTEER COORDINATORS
DAWN SWINEY
KARI MIDTHUN

MOBILE APPLICATION
RUSTY LEWIS
ROXANÉ RITTER
SUNDAY SAENZ

AV COORDINATOR
FRANK WALLACE

FUN RUN COORDINATORS
MEGAN JACKSON
DARCIE DUCKWORTH

JAT SPECIAL ISSUE EDITOR
ALEX KROTULSKI

SEPTEMBER 26–OCTOBER 1, 2021
EXHIBITORS

AGILENT TECHNOLOGIES
ALTERNATIVE BIOMEDICAL SOLUTIONS
AMERICAN SOLUTIONS FOR BUSINESS
APOLLOLIMS
ARK DIAGNOSTICS, INC.
AXIOM DIAGNOSTICS, INC.
BIOCHEMICAL DIAGNOSTICS
BIOTAGE
CAMPBELL SCIENCE
CAPSOURCE SOLUTIONS BILLING
CAYMAN CHEMICAL COMPANY
CFSRE
COLLABORATIVE TESTING SERVICES
COLLEGE OF AMERICAN PATHOLOGISTS
DATA UNLIMITED INTL
DPX TECHNOLOGIES
GENTECH SCIENTIFIC LLC
GOLDEN WEST DIAGNOSTICS, LLC
GRENOVA, INC.
HAMILTON COMPANY
HEALTHPAC COMPUTER SYSTEMS, INC
HORIZON LAB SYSTEMS
ICAFT
IMCS
IMMUNALYSIS
INDIGO BIOAUTOMATION
INTEGRA BIOSCIENCES
JEOL USA
JUSTICETRAX
KURA BIOTECH
LIPOMED
MILLIPORE SIGMA
NEOGEN
OMNI INTERNATIONAL, INC
ORASURE TECHNOLOGIES
PERKINELMER
PHENOMENEX, INC
PHYTRONIX TECHNOLOGIES
RANDOX
REGIS TECHNOLOGIES
RESTEK CORPORATION
SCIEX

2021 HOSTS

JEN COLBY
ERIN KARSCHNER

SCIENTIFIC PROGRAM COORDINATORS
KEN FERSLEW
REBECCA HARTMAN

WORKSHOP PROGRAM COORDINATORS
JARRAD WAGNER
CURT HARPER

EXHIBITOR LIAISON
LIZ KIELY

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

YFT CHAIR
VANESSA MENESSES

VOLUNTEER COORDINATORS
DAWN SWINEY
KARI MIDTHUN

MOBILE APPLICATION
RUSTY LEWIS
ROXANE RITTER
SUNDAY SAENZ

AV COORDINATOR
FRANK WALLACE

FUN RUN COORDINATORS
MEGAN JACKSON
DARCIE DUCKWORTH

JAT SPECIAL ISSUE EDITOR
ALEX KROTULSKI
EXHIBITORS

SHAMROCK GLASS CO., INC
SHIMADZU SCIENTIFIC INSTRUMENTS, INC
SIEMENS HEALTHINEERS
SOUTH TEK SYSTEMS
TECAN SP, INC
THERMO FISHER SCIENTIFIC
UCT
UTAK
VALIDITY DIAGNOSTICS
WATERS

EXHIBIT HALL HOURS

TUESDAY, SEPTEMBER 28
WELCOME RECEPTION
6:30 PM - 9:30 PM

WEDNESDAY, SEPTEMBER 29
EXHIBIT HOURS
9:30 AM - 4:00 PM

THURSDAY, SEPTEMBER 30
EXHIBIT HOURS
9:30 AM - 3:30 PM

2021 HOSTS

JEN COLBY
ERIN KARSCHNER

SCIENTIFIC PROGRAM COORDINATORS
KEN FERSLEW
REBECCA HARTMAN

WORKSHOP PROGRAM COORDINATORS
JARRAD WAGNER
CURT HARPER

EXHIBITOR LIAISON
LIZ KIELY

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

YFT CHAIR
VANESSA MENESES

VOLUNTEER COORDINATORS
DAWN SWINEY
KARI MIDTHUN

MOBILE APPLICATION
RUSTY LEWIS
ROXANE RITTER
SUNDAY SAENZ

AV COORDINATOR
FRANK WALLACE

FUN RUN COORDINATORS
MEGAN JACKSON
DARCIE DUCKWORTH

JAT SPECIAL ISSUE EDITOR
ALEX KROTULSKI

SEPTEMBER 26–OCTOBER 1, 2021
Hello young forensic toxicologists!

YFT is excited to announce our planned events for the upcoming SOFT Annual Meeting in Nashville! All attendees, 41 years or younger, are eligible to join us for both our YFT Symposium and our Professional Development Fair.

Our YFT Symposium will be held on **Sunday, September 26th, from 4:30-9:00 pm**. This year’s event will begin with a social hour, including drinks, hor d’oeurves, and an opportunity for professional networking with peers. During this hour, attendees will also have the opportunity to check out our esteemed Professional Development Fair. Afterwards, we will have presentations from our scheduled symposium speaker, **H. Chip Walls, two of our past Leo Dal Cortivo Award Winners, Sandra C. Bishop and Britni Skillman**, as well as an icebreaker/update on the SOFT Mentoring Program by **Michelle Peace**. Lastly, we will be closing out the night with an open forum discussion. We are excited to come back and provide this networking environment for all young forensic toxicologists, especially first-time attendees! We hope to see you there!

In other news, calling all Young Forensic Toxicologists with accepted abstracts to the SOFT 2021 conference!

Soon the YFT committee will be sending out an email with a brief application for the Leo Dal Cortivo Award. You are eligible for the Leo Dal Cortivo Award if you meet the following requirements:

- The first and presenting author for the accepted abstract
- Less than 41 years old on the first day of the meeting
- You or a co-author is a SOFT member

You can only submit one entry, so if you have more than one accepted abstract you will need to consider which one you want to submit. The Leo Dal Cortivo Award is primarily a presentation award so be sure to put your game face on at the conference. If you have any questions about the Leo Dal Cortivo Award, please email **YFT@soft-tox.org**.

Lastly, the YFT committee wants to thank all of the speakers and participants of our very successful SOFT Continuing Education Webinar: **“OK, You’re an Expert – Now What? An Introduction to Expert Witness Testimony”**. We were elated by the overwhelming positive feedback and for those who may have missed it, our very own YFT member, **Kayla Neuman**, has provided some Do’s and Don’ts for Expert Witness Testimony:

**DO…**

- Update your Curriculum Vitae (CV)
- Practice, Practice, Practice
- Review the case – What can you say?
- Trial Prep with the attorney
- Freely share any irregularities
- Wear business attire with appropriate coverage
- Bring the essentials: subpoena, casefile, ID, keys, phone
- Act in a professional manner
- Talk yourself up – state all qualifications
- Face the jury while answering
- Discuss only what you can based on your training and experience
- Know it’s OK to say “I don’t
YOUNG FORENSIC TOXICOLOGISTS (YFT)

know"
• Think before you answer

DON’T...
• Overstate your qualifications
• Hide things that went wrong
• Dress in flashy, bright, inappropriate clothing
• Bring weapons: pepper spray, pocket knife, knitting needles, etc.
• Get lost
• Enter the courtroom until told to do so
• Discuss the case with others
• Lie
• Guess
• React with negative facial expressions/body language

YOUNG FORENSIC TOXICOLOGISTS (YFT)

NOMINATING COMMITTEE

The Nominating Committee’s task is to provide a slate of Officers and Directors to the full membership of SOFT at least 30 days prior to the annual Business Meeting. The President and President-Elect each serve a one-year term, while the Secretary and Treasurer serve a two-year term which expires on alternate years. Directors are elected for a three-year term.

The 2021 SOFT Nominating Committee was comprised of Suman Rana (Chair), Jen Limoges, and Laurel Farrell. We respectfully submit the following slate to be considered by the SOFT membership. Please see below for Officer and Director bios.

President-Elect: Erin Spargo
Secretary: Chris Heartsill
Director: Jeri Ropero-Miller
Director: Bill Johnson

Dr. Spargo currently serves as the Secretary of SOFT. She was previously the SOFT Awards Committee Chair (2013 – 2020) and a member of the Continuing Education Committee. Erin has been actively involved in the SOFT annual meeting over the years as a Workshop Chair, Workshop Coordinator, Scientific Program Chair, and 2016 Annual Meeting Co-host. Dr. Spargo is a Fellow of the American Academy of Forensic Sciences (AAFS), where she currently serves on the Bylaws committee. She is also a member of The International Association of Forensic Toxicologists and the Texas Association of Crime Laboratory Directors. She has been a recipient of the Educational Research Award from SOFT and the June K. Jones and Irving Sunshine Awards from AAFS. Dr. Spargo is a Fellow of the American Board of Forensic Toxicology, is a certified technical assessor for ANAB in the disciplines of toxicology and controlled substances, holds a Texas Forensic Analyst license in the categories of Toxicology (Interpretive) and Seized Drugs, and is currently an affiliate assisting the OSAC toxicology subcommittee in guideline development.
Chris Heartsill received his B.S. degree in Chemistry from East Central University in 1991. Chris has been working in analytical chemistry for over 29 years with more than 26 years forensic science experience including the areas of human performance forensic toxicology, postmortem forensic toxicology, and forensic laboratory quality management. Chris is currently the Quality Manager for the Dallas Police Department Crime Scene Response Unit. Prior to coming to the Dallas Police Department in 2019, he served as the Quality Manager for the Tarrant County Medical Examiner’s Office in Fort Worth, Texas and formerly the Toxicology Supervisor, Toxicologist, Quality Manager, and Breath Testing Technical Supervisor at the Dallas County Medical Examiner’s Office in Dallas, Texas. He is currently certified by the American Board of Forensic Toxicology as a Diplomate - Forensic Toxicology. Chris is an active member of the Society of Forensic Toxicologists, currently serving as an Executive Board Member, Associate Editor of ToxTalk, 2016 Meeting Co-host, as well as the Southwestern Association of Toxicologists, serving two individual terms as President, Grant Committee Chair, and Historian. He is also a member of the Texas Association of Crime Laboratory Directors, the Association of Forensic Quality Assurance Managers, and the National Safety Council Alcohol, Drugs & Impairment Division, serving on the Executive Board and performing duties as the Chair of the Administrative Committee.

Chris enjoys promoting education in forensic science through participation in workshops and numerous scientific session presentations in organizations including the Society of Forensic Toxicologists, California Association of Toxicologists, Southwestern Association of Toxicologists, the American Academy of Forensic Sciences, and the Texas District & County Attorneys Association.

Chris serves or has served on several committees regarding the advancement of forensic science from a local and national perspective including serving on the Texas Forensic Science Commission Licensing Advisory Committee and serving the Organizational Scientific Area Committees as an affiliate member. He has actively been involved in the accreditation of forensic laboratories through activities with the ANSI-ASQ National Accreditation Board (ANAB) and has served as a Lead Assessor for ANAB.

Dr. Jeri Ropero-Miller, F-ABFT, is the Senior Director at the Applied Justice Research Division and directs its Center for Forensic Sciences, RTI International. Prior to her tenure with RTI, she served as the Deputy Chief Toxicologist at North Carolina’s Office of the Chief Medical Examiner. With expertise and board certification in forensic toxicology and further extending her expertise to broader policy and criminal justice research areas, she has published on topics of postmortem drug studies, emerging drugs, hair drug studies, drug surveillance and intelligence, program evaluation, education and training, and technology evaluation and adoption. She is the current Past President for the American Academy of Forensic Sciences and has previously served on the American Board of Forensic Toxicology and SOFT. She is a member of the Society of Forensic Toxicologists, the International Association of Forensic Toxicologists, the American Society of Crime Laboratory Directors, the International Association of Coroners and Medical Examiners, and the Forensic Sciences Standards Board of the National Institute of Standards and Technology (NIST) Organization of Scientific Area Committees (OSAC). During her 25-year tenure of conducting research, education, and innovation, she has supported more than 20 federally funded programs. Ongoing projects she supports include the National Institute of Justice’s Forensic Technology Center of Excellence (FCTOE), the Drug Enforcement Administration-funded National Forensic Laboratory Information System (NFLIS) project and the Bureau of Justice Statistics-funded 2018 Census of Medical Examiners/Coroners’ Offices and 2019 Census of Publicly Funded Forensic Crime Laboratories. She received her doctorate in Clinical Chemistry and Forensic Toxicology from the University of Florida College of Medicine. Her work has been extensively published and she is recognized nationally and international.

Dr. Ropero-Miller’s favorite research quote- “Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning.” — ALBERT EINSTEIN
William (Bill) Johnson is a Chemist Supervisor in the Forensic Toxicology Program at the Wisconsin State Laboratory of Hygiene (WSLH) with over 30 years of experience in forensic toxicology. Beyond his supervisory duties, Bill is primarily responsible for review and result reporting of ethanol and comprehensive drug testing performed in operating while intoxicated and coroner/medical examiner casework. Bill also provides interpretation of casework and expert testimony in courts throughout Wisconsin. During his career, Bill has given numerous presentations on alcohol, drugs and human performance at the state and national levels and is active with the Wisconsin DRE program. He is also a Diplomate of the American Board of Forensic Toxicology.

Bill is an active member of the AAFS (past Toxicology Section Chair, current trustee of the Forensic Science Foundation). In his over 20 years of SOFT membership he has served as Scientific Program Chair, member of the Ethics committee, workshop co-chair and continues to serve on both the Finance and Drugs and Driving Committees.
Since the inauguration of the Professional Mentoring Program in 2018, our committee has grown both in size and in duties. The struggle of COVID-19 took our program in multiple directions we never anticipated. As a reminder of why we’re here and do what we do, we wanted to take it back to the beginning, to ask all of our committee members, what they think mentoring is. Is it an idea? An act? A commitment?

What is mentoring to you?

“The Mentoring Program has opened up a new avenue of networking for me. Not only have I been able to help others in the field of toxicology, especially in courtroom testimony related to human performance toxicology, I have made new friends in other parts of the country.

—Jim Burris
[Central Texas Forensic Toxicology, TX]

“Mentoring is a way to encourage and help someone! I think being able to have a resource to run ideas by or for moral support is crucial in any field. The great part about mentoring is that there’s always so much to learn, even for the mentor.

—Amanda Cadau
[New York State Police, NY]

“Mentoring (or mentorship) is the opportunity to create a strong and positive relationship between the mentor and mentee through open exchange of ideas, knowledge and wisdom with the shared goals of enhancing skills and discovering untapped talents for the betterment of the individual and organization.

—Marisol Castaneto
[DOD Food Analysis and Diagnostic Lab, Joint Base San Antonio, TX]

“For me mentoring is sharing: sharing experience, motivation and guidance, and inspiring the next generation to do better. Mentoring includes intellectual and emotional components that impact both mentee and mentor. It is a critical component of any individual and institution success.

—Marta Concheiro-Guisan
[John Jay College, City University of New York, NY]

“Being a mentee and/or mentoring someone else is the opportunity to build a long-lasting relationship; a relationship you may not have realized you needed or one that you absolutely needed to get you through certain times in your life. A relationship that is judge-free and open, where you can ask the stupid questions. A mentor’s responsibility is to pass on their knowledge to the up and coming and a mentee’s responsibility is to learn all they can to better themselves for future endeavors.

—Lindsay Glicksberg
[Southwestern Institute of Forensic Sciences, TX]

“Mentoring to me is...ideas forming, knowledge sharing, and relationship building, between any two individuals. One doesn’t need a fancy title to be a mentor, nor does one need to be new in the field to be a mentee. You can choose to learn or to guide, no matter your place in life - as long as you find someone who is ready to commit. So, go on, all you need is the will to share.

—Helen Ha
[Orange County Crime Lab, CA]

“Mentoring is a chance to support a colleague during a pivotal time in their career. It’s an opportunity to share your experience and pass on some of the tools that have helped you to succeed.

—Erin Karschner
[Armed Forces Medical Examiner System, DE]

“Mentoring is an opportunity for personal and professional growth. Asking for and receiving feedback is not always easy, and building a non-judgmental relationship where feedback is practiced regularly allows the mentor and mentee to experience self-development in a way that cannot be achieved alone.

—Beth Olson
[Society of Forensic Toxicologists]

“To me, mentoring is about ensuring a robust future that is advanced beyond our current position. Allowing experience to multiply is an exponential return for everyone. An empowered person makes hard, brave decisions and refines and builds skills that will advance that person, which will then advance agencies, technologies, and processes. Everyone and everything win when an investment is made in mentoring.

—Michelle Peace
[Department of Forensic Science, Virginia Commonwealth University, VA]

“Growth in any capacity takes a village. Mentorship means learning to be comfortable with being uncomfortable. There is no right way to be a mentor or be mentored; just a willingness to try to offer support in lifelong learning and attempting to see from one another’s perspective.

—Kim Samano
[Johnson County Medical Examiner, KS]
“What mentoring is to me is the hope that I can positively affect someone’s life. The passion that a person brings to the relationship is energy that can be harnessed to accomplish lofty goals. The give and take of the relationship is how both participants grow and allows a connection, something that was missing during covid.

–Andre Sukta
[United States Drug Testing Laboratories, IL]

“Mentoring is the sharing of knowledge between two people. I do not believe mentoring is, or should be, a one-way street. I think mentoring can help you feel not alone in where you are and help guide you to where you want to be.

–Courtney Wardwell
[Virginia Department of Forensic Sciences, VA]

What does it mean to you to receive this award? It is truly an honor to receive such a prestigious award. It is incredibly rewarding to be recognized by forensic toxicologists for my work.

How did you become interested in forensic toxicology? My scientific interests have always been chemistry driven. When I started my undergraduate career at Towson University, I was intrigued by the Forensic Chemistry major opportunity. Through coursework, I became passionate about forensic science. As part of my degree plan, I had the opportunity to participate in an internship with the Office of the Chief Medical Examiner’s Toxicology Lab in Baltimore, MD. The exposure and experience gained during the internship solidified my interest in forensic toxicology.

What continuing education are you currently participating in/taking? I am in the final stages of completing my PhD in Forensic Science at Sam Houston State University. I am also in the process of looking for job opportunities in forensic toxicology.

Tell us about a teacher/mentor that had an impact on you or set you on your present career path? Dr. Madeleine Swortwood has had a major impact on my present path. As my research advisor, she has provided me with knowledge, motivation, and support. Her guidance has helped me grow as a person and aspiring forensic toxicologist.

How would you use being the recipient of this award to influence others and how would it impact your career? Being the recipient of this award, I would influence others to work hard, stay motivated, and strive for their goals. In addition, I hope that receiving this award reflects my drive and work ethic that can be carried into my career.

What advice would you give to future award applicants? I would encourage future award applicants to work hard and be confident.

Where do you hope to be in 5 years? In 5 years, I hope to be advancing in my career path as a forensic toxicologist in a working laboratory.

How do you think the SOFT Awards Program impacts students in Forensic Toxicology? I think the SOFT award program has a great impact on students in forensic toxicology because it promotes the importance of student research, allows students to disseminate important findings to the community, and rewards student success.

Kaitlyn Palmquist, B.S.
Sam Houston State University

Congratulations on winning this year’s ERA/YSMA award! How did it feel when you found out that you had won? It felt amazing- I was ecstatic!

When/how did you first learn about SOFT’s award program? I learned about SOFT’s award program through watching awardee presentations at previous conferences. This year, my academic advisor encouraged me to apply.

Can you briefly explain what your submission was about? My doctoral research addresses analytical detection of fentanyl analogs in various biological matrices. My submission focuses on quantification of fentanyl analogs in oral fluid using LC-QTOF-MS and method application to authentic samples.

What did you hope to achieve when you decided to enter a submission to the awards program? I hoped to be the 2021 ERA recipient and for the opportunity to present the final study of my doctoral research at SOFT.
Erica Sales, B.S.
Virginia Commonwealth University

Congratulations on winning this year’s ERA/YSMA award! How did it feel when you found out that you had won? I was in disbelief, honestly. I tend to downplay any work or research I have done in my mind, so seeing that other people read about what I worked hard on and saw importance in it caught me slightly off guard. It was extremely exciting to see, though.

When/how did you first learn about SOFT’s award program? I learned about it when I first went to the SOFT conference in 2018. Another student working in our lab had won and got to present her research that year, and I just thought about how rewarding that must feel.

Can you briefly explain what your submission was about? My submission was about the analysis of ethanol in electronic cigarette vapor. The first step was to see if ethanol is able to be aerosolized in an electronic cigarette, and then to determine what the size of the particles are. Knowing the size helps to determine where in the respiratory system it is able to travel.

What did you hope to achieve when you decided to enter a submission to the awards program? The hope is always to get the award, but deeper than that to feel like I am adding to the knowledge and research that is still being done on alternative nicotine delivery systems.

What does it mean to you to receive this award? It means a lot to have others read about my research that I have done so much work to achieve, and see it as important enough to be shared as a platform for all of the conference-goers to be able to attend. Especially after all of the roadblocks we faced during 2020, it is a very special feeling.

How did you become interested in forensic toxicology? My interest in forensic toxicology came gradually. I had always been interested in chemistry and forensic science, but did not realize that I could actually make a career combining those two interests. The more courses I took in forensics specifically, the more drawn I felt to toxicology.

What continuing education are you currently participating in/taking? I recently graduated from the Forensic Science Master’s program at Virginia Commonwealth University. Right now I’m spending some time working in the field to figure out exactly what next steps I want to take in continuing my education.

Tell us about a teacher/mentor that had an impact on you or set you on your present career path? I can honestly say I have been very blessed having Dr. Michelle Peace as a guiding force for my undergraduate and graduate research career. As a professor as well as a mentor, she has a very specific approach to teaching that provides guidance while also allowing one to gain confidence in themselves and their own scientific choices. She has a lot of wisdom from working in the field and is always willing to share it with her students.

How would you use being the recipient of this award to influence others and how would it impact your career? I would just take it as an opportunity to show others that the work we are doing is more valid and important than we tend to believe it is. When you’re focused on the same topic all of the time, you kind of get tunnel vision and think that everyone else already knows what you’re talking about and feel it’s not worth it to share. However, being a recipient of an award like this helps to re-center my brain and make me remember to just be proud of what I’m doing. We’re all experts in different fields, and have a lot to gain from listening to each other. There is always more to learn and more to discover, which is a mindset I wish to continue to carry throughout the progression of my career.

What advice would you give to future award applicants? Find the importance in your work. Having that specific meaning and purpose helps with the entire research path, from beginning to end. It builds more confidence in what you’re doing, which translates in the writing and presenting that you do.

Where do you hope to be in 5 years? I hope to either be continuing my education or settling into a position that allows me to still learn new things and be challenged. I’m still figuring out what path I want to follow, but I believe that it will continue to slowly reveal itself to me as time goes on.

How do you think the SOFT Awards Program impacts students in Forensic Toxicology? It provides an opportunity to learn about what your peers are doing, as well as encouraging students to apply to and find opportunities to speak on their work. Having the SOFT Awards Program gives students an extra incentive to work hard and show off their smarts. I also think it’s important to see representations of yourself achieving levels of success, and the recognition this program has provides just that.
Forensic toxicology laboratories commonly receive blood specimens in gray top tubes, which are manufactured to contain both preservative and anticoagulant additives. The preservative sodium fluoride (NaF) decreases the rate of in vitro oxidation of ethanol, ensuring that the blood alcohol concentration (BAC) at the time of analysis is as close as possible to the BAC at the time of the blood draw. In general, the anticoagulant can be any of a number of different compounds depending on the tube type; in gray top tubes, however, it is potassium oxalate (K2C2O4). The anticoagulant reduces clotting, thereby maintaining the sample’s homogeneity and ensuring that the analytical result is representative of the sample as a whole.

Recent events such as a recall by the manufacturer of blood tubes due to the absence of preservative and anticoagulant1 and a news article recently published by the Fort Worth Star-Telegram2 concerning the usage of 6 mL versus 10 mL blood tubes have underscored the need for an extensive review of the literature that elucidates the role of additives in blood alcohol analysis and their impact on the analytical result.

Additionally, it appears that there is a perception that blood must be collected in a 10 mL tube due to its higher sodium fluoride content (1% w/v NaF vs 0.25% in 6 mL tubes) in order to obtain a valid blood alcohol result.2 To address both this and the amount of sodium fluoride additive in the recalled tubes (0% w/v NaF),1 the scope of this review encompasses studies that examined antemortem blood in tubes that contained 0 to <1% w/v NaF. The presence and type of anticoagulant in each study is also mentioned, if that information is available.

In a study by Chang and Kollman, blood bank specimens (which were pretreated with glucose, a substrate necessary for ethanol formation) were inoculated with Candida albicans, a microorganism capable of producing ethanol, and placed in tubes with and without anticoagulant and preservative in a nonsterile manner (0% w/v NaF and 1% w/v NaF with potassium oxalate, respectively).3 These samples were then stored at 6, 22, and 37°C for six months during which the amount of ethanol produced in each of the specimens was measured. Unpreserved samples which had been inoculated with C. albicans and stored at 37°C for 69 hours showed some ethanol formation, as did the unoinculated blood though at a much lower concentration (0.005 g/dL ethanol). Samples stored at 22°C with and without preservative had negligible ethanol formation until day 5 and samples stored at 6°C showed no evidence of ethanol formation after 35 days and only trace amounts after 6 months, regardless of whether the preservative was present or not.

A similar study conducted by Amick and Habben also examined the impact of storage time and temperature (4, 25, and 37°C) on blood tubes containing an anticoagulant (K2C2O4), 0.25% w/v NaF, and the ethanol-producing microorganism Saccharomyces cerevisiae.4 They examined four types of samples: uninoculated and preserved, inoculated and preserved, uninoculated and unpreserved, and inoculated and unpreserved. No ethanol was produced in samples stored at 4°C, regardless of storage time, preservative, or inoculation. The only samples that showed ethanol formation were the inoculated samples: the preserved sample showed trace ethanol formation at 37°C and the unpreserved sample was positive for ethanol at both 25 and 37°C. Furthermore, the authors mention that during the course of this study, they examined 200 uninoculated, unpreserved samples and did not observe ethanol production in any of them, regardless of storage temperature.

Petković et al. examined blood specimens taken in a sterile manner from fasting ethanol-negative volunteers that were stored with and without preservative (0 and 1% w/v NaF) for up to 48 hours at both 4 and 20°C.5 The ethanol concentration under these conditions was determined and ranged from ~0-0.00105 g/dL to ~0-0.00010 g/dL for the unpreserved and preserved blood, respectively. They point out that all of the measured values are so low in concentration that they are below their laboratory’s established LOD and LOQ. Overall, regardless of storage conditions or time, the results were comparable even when the preservative was not present.

Aliquots of blood containing 0, 0.5, 1.0, 2.0, or 4.0% w/v NaF were stored for 5 days at 37°C and were studied by Brown et al. in order to determine the effects of varying preservative concentration on blood ethanol concentration.6 The blood containing 0% w/v NaF showed the largest decrease in ethanol concentration at 0.068 g/dL, while the blood with 2.0% w/v NaF showed the smallest decrease in ethanol concentration (0.0117 g/dL). None of the blood samples exhibited an increase in ethanol concentration irrespective of whether the preservative was present or not.

Blood and plasma samples from adults who had consumed a standard drink were obtained by Penetar et al. and placed into tubes that contained either an anticoagulant (K3EDTA) or an anticoagulant plus preservative (K2C2O4 with 0 or 0.21% w/v NaF).7 Serum samples were also obtained and were placed in tubes with and without preservative. The authors analyzed the samples for 10 days at both room temperature and refrigerated storage conditions. The authors found that samples stored for 10 days had a slightly lower ethanol concentration than those analyzed within 24 hours and that there was not a significant difference in ethanol concentration based on whether or not an anticoagulant and/or preservative were present. Senowski and Thompson also analyzed blood obtained from subjects who had consumed alcohol, with resulting blood ethanol concentrations ranging from 0.02-0.15 g/dL.8 Blood samples obtained from these subjects were placed in tubes containing only a preserva-
tive or a preservative and anticoagulant (EDTA). Regardless of whether the anticoagulant was present, both types of tubes contained NaF (either 0.25 or 0.20% w/v); however, the tubes without anticoagulant were allowed to clot in order to determine the impact of the clotting on the resulting ethanol concentration. Additionally, semi-clotted samples created from insufficiently mixed tubes containing preservative were also examined. All samples were stored at 4°C and analyzed within three weeks. The authors found that ethanol concentrations were often lower in the clotted samples than in the unclotted (preserved and well-mixed) samples, likely due to the escape of volatile compounds during the homogenization process. The average difference in ethanol concentration between the clotted samples and the unclotted samples was 0.001 g/dL.

Blood samples in tubes containing 0.36% w/v NaF were stored at room temperature for 3.0 years (37 samples) and 6.75 years (57 samples) and were studied by Chang et al.9 These samples originated as collection; however, these same studies show that a lower concentration and even the absence of these additives still produced a valid result.

REFERENCES

Note: All NaF and blood ethanol concentrations were standardized in this review. NaF concentrations are in % w/v. BACs are in g/dL. Conversions were made with the assumption that the density of whole blood is 1060 g/L.
AAFS Toxicology Section Call for Abstracts, Workshops and Awards!
Preparations are underway for the 74th Annual AAFS meeting in Seattle, WA taking place February 21-26, 2022. The deadline for scientific submissions (abstracts and workshop proposals) is on September 1st! AAFS President Carl R. McClary has chosen the theme of “A Responsive Academy – Meeting and Surpassing the Needs of a Modern Forensic World” for the upcoming meeting.

We look forward to a wide array of quality workshops, scientific sessions, breakfast sessions, and luncheons as well as our traditional special sessions on Drugs & Driving, Postmortem Pediatric Toxicology, and the joint session with the Pathology/Biology section. We highly encourage you to consider submitting relevant scientific content and/or workshop proposals to the Toxicology section by September 1st. Please feel free to contact Toxicology section Program Chair Mandi Mohr (mandi.mohr@cfsre.org) or Co-Chair Diane Boland (Diane.Boland@miamidade.gov) with questions about workshops or scientific session submissions.

If you are considering a Workshop proposal, please note the following requirements for submission in addition to an abstract:

- CV for all speakers (unless on file with AAFS Directory as an AAFS member)
- Contact information for all speakers
- Anticipated costs for speaker travel for non-members (flights, per diem, mileage, etc.)
- Full or Half Day designation
- Workshop schedule with time designations per speaker
- Speaker disclosures
- Expected audience size
- Estimated number of pages for handouts

The AAFS Toxicology Section’s awards and scholarships offer an enviable way to recognize the achievements and contributions of our distinguished colleagues and promising students. Nominations and all accompanying supporting information are due on August 1, 2021. To learn more about the awards, visit the AAFS website for a description of each. Questions can be directed to the Awards and Scholarships Committee Chair Tate Yeatman (yeatmand@pbso.org), who will be happy to guide you through the nominating process to ensure our section recognizes those already making it a great section and invites and welcomes new and promising talent within our midst.

Looking forward to seeing y’all in Seattle!

CAT VIRTUAL WEBINAR

The California Association of Toxicologists (CAT) is holding their first Virtual Meeting on August 4-5, 2021. This two-day FREE event is open to both CAT members and non-members. There will also be CE credits available. The speaker line-up consists of quality assurance, drug prevalence trends, new methods, and interesting cases. There will also be a virtual trivia session.

Please register and view the agenda HERE

We look forward to your attendance. Any questions, please do not hesitate to reach out.

Luke N. Rodda
CAT Vice President

Ariana Adeva
CAT President
FOLLOW JAT ON TWITTER

@JANALYTICALTOX

DON'T MISS AN ISSUE!

PLEASE SEND YOUR ADDRESS UPDATES TO THE SOFT OFFICE SO WE CAN UPDATE YOUR ACCOUNT WITH JAT

EMAIL CC WATSON AT FC@SOFT.TOX.ORG
FUTURE SOFT MEETINGS

2021
GAYLORD OPRYLAND, NASHVILLE, TN
SEPTEMBER 26–OCTOBER 1, 2021
JENNIFER COLBY AND ERIN KARSCHNER

2022
HUNTINGTON CONVENTION CENTER, CLEVELAND, OH
OCTOBER 30–NOVEMBER 4, 2022
DOUG ROHDE AND MICHELE MERVES CROSBY

2023
GAYLORD ROCKIES, DENVER, CO
OCTOBER 29–NOVEMBER 3, 2023
DAN ANDERSON AND JARRAD WAGNER

2024
UNION STATION, ST. LOUIS, MO
OCT 27-NOV 2
TBD

TOXTALK

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

Deadlines for Contributions:
Issue 1: Submission due by Feb. 5
Issue 2: Submission due by Apr. 9
Issue 3: Submission due by Jul. 9
Issue 4: Submission due by Oct. 8

CONTACT SOFT

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

GENERAL INFORMATION:
PH: 480-839-9106, E: INFO@SOFT-TOX.ORG

EXHIBITOR/SPONSORSHIP:
EXHIBITOR@SOFT-TOX.ORG

MEMBERSHIP:
CC@SOFT-TOX.ORG

FOLLOW USE ON FACEBOOK
VISIT OUR WEBSITE