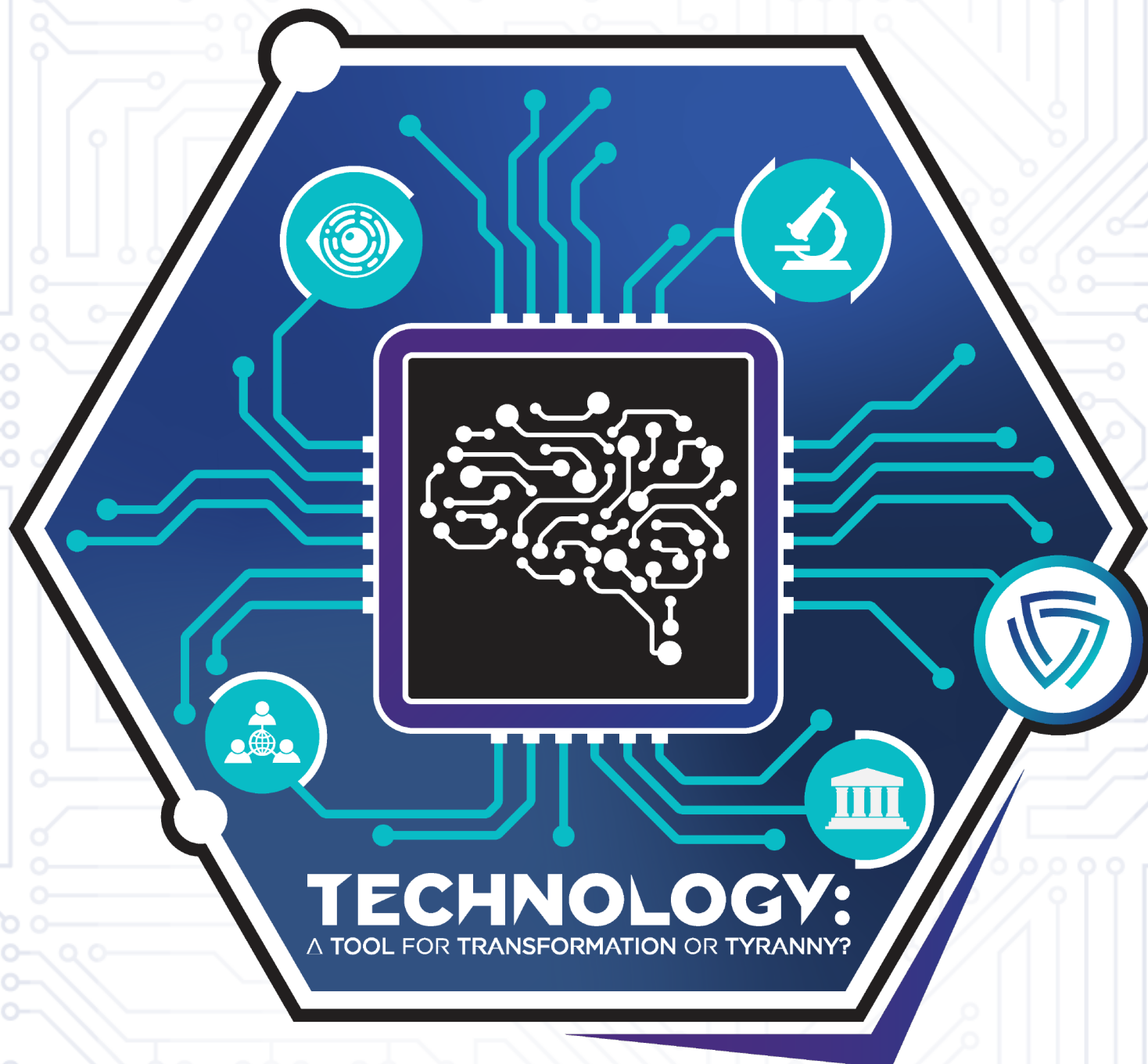


PROGRAM



February 17-22, 2025
Baltimore Convention Center
#AAFS2025



TABLE OF CONTENTS

Officers & Officials	2
Program Committee	2
General Information	3
Sexual Misconduct Resources and Information	4
Conference Extras	5
Awards	6
Section Awards	7
Business Meetings	8
Financial Contributors	9
Continuing Education	10
Diversity and Inclusion in Forensic Sciences Forum and Reception	12
Mentor Program Gathering	12
Student Academy	13
Forensic Science Education Programs Accreditation Commission Session	15
Standards From Around the World	16
Young Forensic Scientists Forum Special Session	18
Interdisciplinary Symposium	20
HRRRC Poster Session	22
Keynote Address	23
Plenary Session	24
Case Break Sessions	26
Deep-Dive Sessions	34
Luncheon Seminar	40
Workshops	41
National Institute of Justice	91
 Scientific Sessions	
Anthropology	95
Criminalistics	108
Digital & Multimedia Sciences	128
Engineering & Applied Sciences	132
Forensic Nursing Science	136
General	138
Jurisprudence	148
Odontology	152
Pathology/Biology	154
Psychiatry & Behavioral Science	166
Questioned Documents	170
Toxicology	173
Last Word Society	180
YFSF Poster Sessions	181
Financial Disclosure	188
Key Word Index	192
Author Index	202
Bring Your Own Slides Form	209

OFFICERS AND OFFICIALS

Officers

President: Christopher Thompson, MD
President-Elect: Joanna Collins, MFS
Past President: C. Ken Williams, MS, JD
Vice President: James Caruso, MD
Treasurer: Sarah Kerrigan, PhD
Secretary: Marcus Rogers, PhD

Directors

Anthropology: Gregory Berg, PhD
Criminalistics: Vincent Desiderio, MS
Digital & Multimedia Sciences: Marla Carroll, BS
Engineering & Applied Sciences: Helmut Brosz, BASc
Forensic Nursing Science: Jamie Ferrell, MBA
General: Claire Shepard, MS
Jurisprudence: Pamela King, JD
Odontology: Gary Bell, DDS
Pathology/Biology: Chris Milroy, MD, LLB
Psychiatry & Behavioral Science: Karen Rosenbaum, MD
Questioned Documents: Linton Mohammed, PhD
Toxicology: Dan Anderson, MS

Section Officers

Anthropology

Chair: Debra Zinni, PhD
Secretary: Teresa Wilson, PhD

Criminalistics

Chair: Sheree Hughes, PhD
Secretary: Agnes Winokur, MS

Digital & Multimedia Sciences

Chair: Kathryn Seigfried-Spellar, PhD
Secretary: Joseph Levi White, PhD

Engineering & Applied Sciences

Chair: Carole Chaski, PhD
Secretary: David Pienkowski, PhD

Forensic Nursing Science

Chair: Amy Carney, PhD
Secretary: Janean Fossum, BSN, RN

General

Chair: Brian Janysek, MFS
Secretary: Gina Londino-Smolar, MS

Jurisprudence

Chair: Terry-Dawn Hewitt, LLM
Secretary: Gary McDonald, JD

Odontology

Chair: Denise Murmann, DDS
Secretary: Phyliss Ho, DDS

Pathology/Biology

Chair: Owen Middleton, PhD
Secretary: Lavinia Iancu, PhD

Psychiatry & Behavioral Science

Chair: Sebastien Prat, MD
Secretary: Giuseppe Troccoli, MD

Questioned Documents

Chair: Kevin Kulbacki, MSFS
Secretary: Tobin Tanaka, BSc

Toxicology

Chair: Diane Moore, PhD
Secretary: Dayong Lee, PhD

2025 Program Committee

<i>Program Chair:</i>	Karen Rosenbaum, MD	<i>Anthropology:</i>	Jaymelee Kim, PhD
<i>Program Co-Chair:</i>	Claire Shepard, MS		Rebecca Wilson-Taylor, PhD
<i>Plenary Session:</i>	Dean De Crisce, MD	<i>Criminalistics:</i>	Lynn Schneeweis, MS
	Marla Carroll, BS		Tiffany Rodriguez, MS
<i>Case Break Sessions:</i>	Stephanie Domitrovich, JD, PhD	<i>Digital & Multimedia Sciences:</i>	Josh Brunty, ScD
	Alex Krotulski, PhD		Christina Malone, MSFS
<i>Poster Sessions:</i>	Melissa Connor, PhD	<i>Engineering & Applied Sciences:</i>	Kurt Weiss, MS
	Amy Carney, PhD	<i>Forensic Nursing Science:</i>	Laura La Cagnina, DNP
<i>Workshops:</i>	Kevin Kulbacki, MSFS		Jessica Volz, DNP
	Gina Londino-Smolar, MS	<i>General:</i>	Brian Clark, MFS
<i>Luncheon Seminars:</i>	Carole Chaski, PhD		Robert Hunkeler, MFS
	Jason Paroff, JD	<i>Jurisprudence:</i>	Colin Bellair, JD
<i>Last Word Society:</i>	Kenneth Melson, JD		Mary Dayton, JD
	Carla Noziglia, MS	<i>Odontology:</i>	Khlea Sumani, DMD
<i>Bring Your Own Slides:</i>	J.C.U. Downs, MD	<i>Pathology/Biology:</i>	Noemi Procopio, PhD
	Joseph Prahlow, MD	<i>Psychiatry & Behavioral Science:</i>	George Annas, MD, MPH
<i>Student Academy:</i>	Lynn Schneeweis, MS		Marc Cohen, MD
	Ginesse Listi, PhD	<i>Questioned Documents:</i>	Timothy Campbell, BSc
<i>Interdisciplinary Symposium:</i>	Yong Guan, PhD		Zain Bhaloo, MSc
	Katharine Pope, MA	<i>Toxicology:</i>	Erin Karschner, PhD
<i>Local Arrangements:</i>	Jennifer Love, PhD		Svante Vikingsson, PhD
<i>YFSF Representative:</i>	Emily Rue, PhD		

GENERAL INFORMATION

Registration Desk Hours

Sunday	February 16	1:00 pm	-	5:00 pm
Monday	February 17	6:45 am	-	5:00 pm
Tuesday	February 18	6:45 am	-	6:00 pm
Wednesday	February 19	6:45 am	-	5:00 pm
Thursday	February 20	6:45 am	-	5:00 pm
Friday	February 21	6:45 am	-	4:00 pm

Exhibit Hall Hours

Wednesday	February 19	11:30 am	-	4:00 pm
Thursday	February 20	9:00 am	-	2:00 pm
AAFS Reception	(Exhibits Open)	6:00 pm	-	8:00 pm
Friday	February 21	9:00 am	-	1:00 pm

All times are in the U.S. Eastern Time Zone

Media Statement: The American Academy of Forensic Sciences (AAFS) does not comment on forensic cases or medicolegal investigations. Media releases will be issued by the AAFS Board of Directors only in response to matters deemed pertinent to the business of the Academy. The sitting AAFS President is the only member of the Academy authorized to provide comment on behalf of the Academy. Comments, views, and opinions expressed by all other members of the Academy reflect the comments, views, and opinions of the individual solely.

Registrant Minimum Age: All registrants and presenters at the AAFS Annual Scientific Conference must be at least 18 years old at the time of the conference.

Lost Badge Policy: Lost, misplaced, stolen, or forgotten badges will incur a replacement fee equal to the original purchase amount of your registration. If your badge was complimentary, the fee will be the current, on-site rate.

Author Information: The *Journal of Forensic Sciences* encourages authors to submit previously unpublished reports and papers presented at the AAFS annual conference. For full instructions on manuscript preparation, consult the Information for Authors available at: <https://www.aafs.org/resources/journal-of-forensic-sciences/information-for-authors/>.

Manuscripts must be submitted electronically via the *Journal of Forensic Sciences* Manuscript Central site: <http://mc.manuscriptcentral.com/jofs>. For questions, please contact: jfs.editor@att.net.

Reminders:

- Video and/or audio recording of any session(s) or parts thereof is not permitted without prior approval from the AAFS.
- English is the official language of the AAFS and its meetings; neither oral nor written translations will be provided.
- Although precautions are taken to prevent schedule changes, speakers and program schedules may change due to unforeseen circumstances.
- As a courtesy to others, please silence your cell phone when attending the sessions.
- The AAFS has a zero-tolerance policy for discrimination or harassment of any kind, including bullying, offensive language, inappropriate gestures, acts of violence, or any other form of harassment. We also require that you refrain from any disruptive behavior that undermines our constructive and inclusive environment. In digital interactions, carefully consider the potential impact of sharing sensitive or triggering content. Be mindful of cultural differences and diverse perspectives. Treat others with respect. Any inappropriate behavior during a presentation will not be tolerated and may result in being removed from the session.

Future AAFS Annual Conferences

2026 AAFS Annual Conference

February 9-14, 2026

Ernest N. Morial Convention Center
New Orleans, LA

2027 AAFS Annual Conference

February 15-20, 2027

Rosen Shingle Creek Convention Center
Orlando, FL

2028 AAFS Annual Conference

February 21-25, 2028

Caesar's Palace
Las Vegas, NV

SEXUAL MISCONDUCT RESOURCES AND INFORMATION

AAFS takes the safety of its meeting attendees seriously and strives to promote a welcoming experience for all. In order to promote a safe environment for meeting attendees, we have resources for meeting attendees about sexual misconduct.

What is sexual misconduct?

Sexual misconduct is an umbrella term that includes different types of sexual violence, including sexual harassment and sexual assault. (<https://www.rainn.org/types-sexual-violence>)

What is sexual harassment?

Sexual harassment includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical harassment of a sexual nature in the workplace or learning environment, according to the Equal Employment Opportunity Commission. (www.rainn.org/articles/sexual-harassment?gclid=CjwKCAjw2P-KBhByEiwADBYWCqz0g1E4mRjRxf5TN-EQ-JYXo2Q7USO-Yrtu1c9klaUmTmrEtpmsaxoCbiQQAvD_BwE)

What is sexual assault?

The term sexual assault refers to sexual contact or behavior that occurs without explicit consent of the victim. (www.rainn.org/articles/sexual-assault)

What do I do if I experience sexual misconduct during the annual conference?

- Call 911.
- Call the AAFS “safe person” number below or contact another member of the AAFS staff.
- Locate security personnel at the conference venue.
- Report conduct to the AAFS Ethics Committee.
- Refer to the resources list below.

What do I do if I have witnessed sexual misconduct during the annual conference?

- Talk to the victim/survivor. Encourage them to review this resource page.
- Direct them to the AAFS ‘safe person’ or another member of the AAFS staff
- Direct them to security personnel at the conference venue.
- If the person is in immediate danger, call 911.

Resources:

AAFS “safe person”: 917-678-7197

Maryland Crimes Victims’ Resource Center
301-952-0063
www.mdcrimevictims.org

Baltimore Police Department
410-637-8849
www.baltimorepolice.org/contact-baltimore-police-department
National Sexual Assault Hotline: 1-800-656-4673
National Domestic Violence Hotline: 1-800-799-7233

National Sexual Violence Resource Center
www.nsvrc.org
Resources for survivors, including definitions, where to get help, and post-assault recovery.

National Domestic Violence Hotline
www.thehotline.org
Resources include definitions, local resources/legal aid, crisis line, and crisis chat.

RAINN
www.rainn.org
Resources include definitions, statistics, crisis line, and crisis chat.

No member or Affiliate of the Academy shall participate in unacceptable behavior at an annual Academy conference, to include times not specifically in session or at gatherings, social or otherwise, not specifically a part of the Academy program. Unacceptable behavior includes, but may not be limited to, harassment; intimidation; discrimination; physical abuse; physical assault, verbal abuse; inappropriate use of nudity or sexual images; threats; stalking; unwanted sexual comments or advances; or derogatory comments related to gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, religion, national origin, or political positions.

CONFERENCE EXTRAS

The 2025 conference offers not only top-tier educational content, but a number of ways for you to enjoy Baltimore, connect with fellow attendees, and maximize your experience throughout the week. Check out some of the below opportunities offered to attendees of the AAFS Annual Scientific Conference:

TUESDAY – FEBRUARY 18

Facility Tour: Baltimore Crime Lab

Take a peek inside the world-class facility home to the Baltimore Crime Lab and Forensic Science and Evidence Services Division of the Baltimore Police Department. Their team is opening their doors to allow AAFS attendees a special look at how they operate to support the region. Limited space will be available, and tours will be approximately 2.5 hours. Transportation to/from the facility will be provided.

Special thanks to Division Chief Rana Dellarocco, MSFS, for partnering with us to offer this opportunity.



FRIDAY – FEBRUARY 21 | 8:00 PM

Closing Celebration: “Club 77”

Feeling lucky? It’s all 7’s at Club 77, our casino-themed closing celebration! Try your hands at the game tables, dance the night away, and even possibly win a weekend getaway package to Las Vegas, courtesy of Caesar’s Palace!

Taking place Friday evening, your ticket includes music, desserts, entertainment, games, and more. Dress your best to impress lady luck and close out the conference with your friends and colleagues!

Note: This event is ticketed and is not included in your registration. You may purchase additional tickets for any guests you may wish to invite, even if they are not registered for the main conference itself. All guests must be 18 years or older.

Cost: \$77 per ticket

A portion of each ticket will support the programs of the Forensic Sciences Foundation and the Humanitarian and Human Rights Resource Center.



AWARDS

Distinguished Fellow *Jennifer F. Limoges, MS*



Ms. Limoges is the Associate Director/Toxicology at the New York State Police Forensic Investigation Center. She received her BS in Chemistry from Clarkson University and her MS in Forensic Science from the University of New Haven. She began working for the New York State Police as a forensic scientist in 1994.

Ms. Limoges' primary area of expertise is impaired driving toxicology. She helped launch New York State's evidential oral fluid drug testing program in 2023. She co-authored the 2013 *Journal of Analytical Toxicology* publication, "Recommendations for Toxicological Investigation of Drug

Impaired Driving and Motor Vehicle Fatalities," as well as the 2017 and 2021 updates. She also co-authored the National Traffic Law Center's "Drug Toxicology for Prosecutors" monograph. She regularly provides training to toxicologists, law enforcement officers, attorneys, judges, and other traffic safety stakeholders at the local and national level.

Ms. Limoges is also very passionate about forensic science standards. She worked to establish the Academy Standards Board (ASB) and currently serves as the Chair. She is a member of the ASB Toxicology Consensus Body and is a past member of the Organization of Scientific Area Committees (OSAC) Toxicology Subcommittee and Scientific Working Group for Forensic Toxicology (SWGTOX). She regularly assists toxicology laboratories to reach conformance and educates stakeholders on the benefits of standards for quality testing, improved data collection, and equitable justice.

Ms. Limoges is an active member of the American Academy of Forensic Sciences (AAFS) and Society of Forensic Toxicologists (SOFT). She regularly contributes to the significant work done by the joint SOFT/AAFS Drugs & Driving and SOFT/AAFS Oral Fluid Committees. She is a Past President of SOFT, a Past President of the Northeastern Association of Forensic Scientists (NEAFS), a member of the International Association of Chemical Testing (IACT), and is certified by the American Board of Criminalistics (ABC-GKE). Ms. Limoges is part of the National Safety Council's Alcohol, Drugs, and Impairment Division (NSC ADID) and has been on their Executive Committee since 2008. She received the NSC ADID's prestigious Robert F. Borkenstein Award in 2023 for her outstanding contributions to the field of alcohol and drug-related traffic safety.

Outstanding Early Career Achievement in Forensic Science Award

Alex J. Krotulski, PhD

Humanitarian and Human Rights Resource Center's Clyde Snow Award

Abuelas de Plaza de Mayo

FSF Emerging Forensic Scientist Award

Sydney Q. Chizmeshya, MSc
Megan F. McGuire
Enrica Macorano, MD

FSF Jan S. Bashinski Criminalistics Graduate Thesis Assistance Grant

Jaycie Esteban, BS

FSF Warren-Young Scholarship

Lacey R. Dougharty, BS

SECTION AWARDS

The Section Awards will be presented during Section Business Meetings on Wednesday, February 19.

Section Award Honorees

Anthropology Section's

Ellis R. Kerley Research Award
Section Service Award

Katherine E. Weisensee, PhD
Debra Prince Zinni, PhD
Teresa Wilson, PhD

Criminalistics Section's

Paul L. Kirk Award
Mary E. Cowan Outstanding Service Award
Meritorious Service Award

Charlotte J. Word, PhD
Karolyn L. Tontarski, MS
Jack Hietpas, PhD

Digital & Multimedia Sciences Section's

Outstanding Case Study Award
Outstanding Research Award
Outstanding Student Research Award

Jason R. Lewis, PhD
Brandon Epstein, MS
Nina Matulis, MS

Engineering & Applied Sciences Section's

Steven Charles Batterman Award

Helmut G. Brosz, BAsC

Forensic Nursing Science Section's

Forensic Nurse Scientist Award
Forensic Nurse Innovator Award
Distinguished Forensic Nursing Service Award

Nancy Downing PhD, RN, FAAN
Virginia A. Lynch MSN, RN, FCNS
Jamie Ferrell MBA, BSN, RN

General Section's

Robert Gaffney Achievement Award
John R. Hunt Award

Micaela A. Ascolese, MS
Brett E. Harding, MBA

Jurisprudence Section's

Harold A. Feder Jurisprudence Section Award

Pamela A. W. King, JD

Odontology Section's

Lester Luntz Odontology Award

Kenneth W. Aschheim, DDS

Pathology/Biology Section's

Best Resident Paper Award
Milton Helpert Award
Award for Achievement in the Forensic Life Sciences
Forensic Biologist Trainee Paper Award (FBT)
Best Medical Student Paper Award

Michael Chaump, MD
James L. Caruso, MD
Baneshwar Singh, PhD
Paurabhi Singh
Alexander Yue

Toxicology Section's

Irving Sunshine Award
June K. Jones Scholarship Award

Annual Lectureship in Toxicology

Michael T. Truver, Ph.D
Jesse Meekins, B.S.
Sara Walton, M.S.
Michael H. Baumann, Ph.D.

BUSINESS MEETINGS

Attend Your Section's Annual Business Meeting!

Wednesday, February 19

1:00 pm	-	3:15 pm	Anthropology
1:00 pm	-	2:30 pm	Criminalistics
1:30 pm	-	3:15 pm	Digital & Multimedia Sciences
1:30 pm	-	3:15 pm	Engineering & Applied Sciences
1:30 pm	-	3:00 pm	Forensic Nursing Science
1:30 pm	-	3:15 pm	General
1:45 pm	-	3:15 pm	Jurisprudence
2:00 pm	-	3:15 pm	Odontology
1:30 pm	-	3:00 pm	Pathology/Biology
1:15 pm	-	3:15 pm	Psychiatry & Behavioral Science
1:00 pm	-	3:00 pm	Questioned Documents
1:30 pm	-	3:15 pm	Toxicology

All times are in the U.S. Eastern Time Zone

Attend the AAFS Annual Business Meeting for a Chance to Win a Complimentary Meeting Registration!

The Annual Business Meeting of the Fellows and Members of the AAFS will be held on Wednesday, February 19, at 3:45 pm. It is essential that all Fellows and Members attend this very important meeting in order to reach a quorum for the voting process. Agenda items include the election of 2025-26 Officers, consideration of bylaw amendments, a summary of AAFS activities during the past year, and plans for the future.

As an incentive to attend, all Fellows and Members present will automatically be entered in a drawing for a complimentary meeting registration to attend the 2026 AAFS Annual Scientific Conference in New Orleans, LA.

FINANCIAL CONTRIBUTORS

The American Academy of Forensic Sciences would like to thank the following for their contribution to the 77th Annual Scientific Conference:

SILVER SPONSORS



BRONZE SPONSORS



GENERAL SPONSORS



CONTINUING EDUCATION

General Information

All meeting sessions are lectures with one or more speakers. Continuing professional education credits will be offered for physicians, dentists, and attorneys. Continuing education credit applications will be submitted for physicians, nurses, and dentists. Attorneys may request CLE credit; please see the “Legal” section.

To register for continuing education credit, please complete the appropriate section on the meeting Registration Form. An individual must be a registrant to obtain continuing education credit. Fees charged for continuing education credits are based on projected costs of providing the various types of continuing education credit. The AAFS has adopted a user-pay approach so that those individuals who benefit from the specific continuing education program are responsible for the costs incurred.

In order to be in compliance with accrediting organizations, introductions and breaks have been deducted from the total hours. Please note that continuing education credit is not available for all sessions. All continuing education credit recipients will receive certificates with the number of continuing education hours awarded. Attendance reports are filed with the appropriate state or national agency, as required.

Learning Objectives of the AAFS Continuing Education Program

- Recognize the perspectives and roles of the various forensic science disciplines
- Assess current concepts and practices
- Discuss relevant forensic science issues related to science, evidence and the law
- Identify strategies for researching descriptive studies, technology and methods, diagnostics, interpretation and testimony
- Review administrative functions performed by forensic scientists

American Board of Criminalists Approval

The American Academy of Forensic Sciences (AAFS) is approved by the American Board of Criminalistics (ABC) to offer continuing education points for approved workshops for criminalists and forensic scientists. The ABC maintains responsibility for the program, and credit may be awarded to ABC Fellows, Diplomates, and Affiliates.

Overall Purpose and Objective Statements for Major Aspects of AAFS Programs

Workshops and Special Sessions

Purpose: To provide an opportunity for experts to present material and to lead discussion and practical exercises related to forensic science methods, procedures, diagnosis, investigation, professional relations and practices, communication, administration, and professional development.

Learning Overview: Detailed individually in each workshop and special session announcement and description.

Plenary and Keynote Sessions

Purpose: To provide a multidisciplinary presentation and discussion of issues related to the forensic science profession.

Learning Overview: Attendees will be able to: a) identify the challenges the forensic science profession has faced and will continue to face in terms of ensuring quality; b) identify ways to deal with the variances each challenge presents; and c) identify the entities which have influence over setting the quality standards in the field of forensic science.

Oral and Poster Section Scientific Sessions

Purpose: To provide an opportunity for presentation and discussion of case reports, descriptive studies, review presentations, research, administrative issues, and investigative/diagnostic methods regarding topics and issues of importance to a primary discipline among the forensic sciences.

Learning Overview: To meet the educational objectives stated by each presenter for his/her/their presentation.

Last Word Society

Purpose: To provide a retrospective forensic analysis of historical events and to provide education about the history and evolution of forensic sciences as well as the modern methods and technologies used to re-examine past events of forensic science interest. Emphasis is placed on the evaluation of the original opinions and case outcome and on the development of newer hypotheses based on the re-analysis.

Learning Overview: To meet the educational objectives stated by each presenter for his/her/their presentation.

CONTINUING EDUCATION

Guidelines For Claiming Credit

As the sponsor of Continuing Education Credit, the AAFS recognizes that the forensic science disciplines are inextricably linked and that interdisciplinary knowledge is critical to promote competence in forensic practice. As a result, the claiming of credit for various continuing education activities related to medicine, dentistry, law, and other forensic disciplines need not be limited to one's primary professional specialty. For example, a forensic pathologist from the Pathology/Biology Section may gain very useful and relevant information by attending a presentation in the Anthropology Section scientific session. It is appropriate to claim continuing medical education credit for that session. Many other examples exist where the claiming of continuing education credit is appropriate for attending sessions that cover material related to, but which lay outside of, one's primary professional area of expertise.

It is the conference attendee's responsibility to document which program sessions were attended and to determine those sessions for which continuing education credit may be claimed. The AAFS operates under the assumption that meeting attendees will, in general, be unlikely to attend sessions that will not be beneficial to their professional practice and that the claim for continuing education credit is justified if a session contains scientific or practice-related information that may bring new knowledge, may affirm current knowledge, or may provide information that could possibly modify one's professional practices.

Those who wish to receive continuing education credit must register and pay the Continuing Education Credit fee during registration. CE Credit Request instructions will be made available before the conference, and credit must be claimed using the online CE portal. AAFS will provide CE Credit worksheets on-site for tracking of applicable hours.

Joint Accreditation Statement



In support of improving patient care, this activity has been planned and implemented by the Postgraduate Institute for Medicine and the American Academy of Forensic Science. Postgraduate Institute for Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician Continuing Medical Education Credit

The Postgraduate Institute for Medicine designates this live activity for a maximum of 37.5 AMA PRA Category 1 Credit(s)[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Dental Continuing Education Credit

This continuing education activity has been planned and implemented in accordance with the standards of the ADA Continuing Education Recognition Program (ADA CERP) through joint efforts between Postgraduate Institute for Medicine and the American Academy of Forensic Sciences.

Postgraduate Institute for Medicine is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of the credit hours by boards of dentistry. The Postgraduate Institute for Medicine designates this activity for 37.75 continuing education credits. Concerns or complaints about a CE Provider may be directed to the provider or to the Commission for Continuing Education Provider Recognition at www.ada.org/Cerp.

Legal Continuing Education Credit

Continuing legal education credit will be awarded on an hour-for-hour basis. Attorneys may file the AAFS-issued CLE certificate with their respective state bars. Please note that AAFS is not a pre-approved provider for any state. Each claimant is responsible for any CLE credit approval requirements, including any claim applications, documentation, or fees required in order to submit their CLE credit to their respective state board.

Non Physician Continuing Education Credit

A general non physician certificate of attendance will be available.

General Continuing Education Credit

General continuing education credit is offered for those practicing the various forensic science disciplines not represented in the aforementioned list.

Nursing Continuing Education Credit

The Postgraduate Institute for Medicine designates this live activity for a maximum 37.5 Continuing Nursing Education (CNE) credits. Nurses should claim only the credit commensurate with the extent of their participation in the activity.

DIVERSITY AND INCLUSION IN FORENSIC SCIENCE FORUM AND RECEPTION

Open to All Meeting Registrants

Tuesday, February 18, 2025

8:00 pm - 10:00 pm

Moderated by the AAFS Diversity Outreach Committee

The goal of the Diversity Outreach Committee (DOC) Session is to enlighten and initiate dialogue regarding diversity, equity, and inclusion initiatives within the AAFS and the greater forensic science community. Participants will hear from an invited speaker on their perspectives and experiences on issues related to diversity and inclusion. The DOC hopes that this interactive session will promote dialogue on navigating diversity, equity, and inclusion within forensic science throughout an everchanging social climate.

Program details and speaker will be announced soon!

MENTORSHIP PROGRAM GATHERING

If you are an up-and-coming forensic scientist interested in being partnered with an experienced colleague who can advise you in your career progression, help you network, and assist in learning new skills, then please consider signing up for the AAFS Mentorship Program.

The 2025 Mentorship Program Gathering will bring together those mentees and mentors who are willing to help guide personal growth within the individual AAFS sections. Refreshments will be served. Session date and time will be announced soon.

For those unable to make it to Baltimore or have a conflict, but are interested in the Mentorship Program, please let us know by contacting mentorship@aafs.org.

STUDENT ACADEMY

Pre-Registration Required (\$35/Person)

Tuesday, February 19, 2025

9:00 am - 2:00 pm

The purpose of the Student Academy of Forensic Sciences is to bring to the attention of high school students the vital importance of the application of scientific principles to the administration of justice. It acquaints the participants with the role of the forensic science disciplines in the legal system as well as the education and training required for the career in each discipline.

Chair:

Lynn A. Schneeweis, MS

Massachusetts State Police Crime Laboratory
Maynard, MA

Faculty:

Anthropology

Lauren R. Pharr Parks, PhD

Memphis, TN

Criminalistics:

Kelly L. Knight, MS

George Mason University
Fairfax, VA

Digital & Multimedia Sciences

Douglas Lacey, MS

BEK TEK LLC
Stafford, VA

Engineering & Applied Sciences:

Roy Crawford, BSME

R.R. Crawford Engineering, Inc.
Whitesburg, KY

Forensic Nursing Science

Amy Y. Carney, PhD

California State University
San Marcos, CA

General:

Natalie M. Borgan, MS

FBI
Detroit, MI

Jurisprudence:

TBD

Co-Chair:

Ginesse A. Listi, PhD

Louisiana State University
Baton Rouge, LA

Odontology:

Lillian A. Nawrocki, DDS

Orlando, FL

Pathology/Biology:

Jamie Downs, MD

forensiX, LLC
Johns Island, SC

Psychiatry & Behavioral Science:

TBD

Questioned Documents:

TBD

Toxicology:

George F. Jackson, PhD

NJ Office of the Chief State Medical Examiner
Burlington Township, NJ

Ashraf Mozayani, PhD

Texas Southern University
Houston, TX

Sponsored by:

The logo for American Printing & Copying features the word "AMERICAN" in a bold, black, sans-serif font. A red swoosh underline is positioned beneath the letters "A", "M", and "I". Below this, the words "PRINTING & COPYING" are written in a smaller, black, sans-serif font.

STUDENT ACADEMY

Program:

9:00 am - 9:10 am	Introduction <i>Lynn A. Schneeweis, MS</i>
9:10 am - 9:20 am	Welcome <i>Christopher R. Thompson, MD</i>
9:20 am - 9:30 am	“The Case” <i>Ginesse A. Listi, PhD</i>

The Forensic Sciences Group I Disciplines

9:30 am - 10:45 am	Pathology/Biology <i>Jamie Downs, MD</i>
	Anthropology <i>Lauren R. Pharr Parks, PhD</i>
	Odontology <i>Lillian A. Nawrocki, DDS</i>
	Toxicology <i>George F. Jackson, PhD; Ashraf Mozayani, PhD</i>
	Digital & Multimedia Sciences <i>Douglas Lacey, BS, MS</i>
	Forensic Nursing Science <i>Amy Y. Carney, PhD</i>
10:45 am - 11:00 am	Q&A, Assignment, and Break

The Forensic Sciences Group II Disciplines

11:00 am - 12:15 pm	General <i>Natalie M. Borgan, MS</i>
	Criminalistics <i>Kelly L. Knight, MS</i>
	Questioned Documents <i>TBD</i>
	Engineering & Applied Sciences <i>Roy Crawford, BSME</i>
	Psychiatry & Behavioral Science <i>TBD</i>
12:15 pm - 1:30 pm	Lunch and Student Trivia
1:30 pm - 1:45 pm	Case Conclusion <i>M.J. Menendez, JD</i>
1:45 pm - 2:00 pm	Wrap-Up

FEPAC SESSION

Accreditation of Forensic Science Academic Programs

Tuesday, February 18, 2025

Pre-Registration Not Required—Open to All Meeting Attendees

8:30 am – 12:45 pm

Chair:

Heidi Eldridge, PhD

The George Washington University
Washington, DC

Commissioner:

Pamela Marshall, PhD

Duquesne University
Pittsburgh, PA

Commissioner:

Amy Brodeur, MFS

Boston University School of Medicine
Boston, MA

Commissioner:

Thomas Brettell, PhD

Cedar Crest College
Allentown, PA

Commissioner:

A. Karl Larsen, PhD

University of Illinois
Chicago, IL

Learning Overview: Upon completion of this session, the participant should be able to understand the process of accreditation through the AAFS FEPAC mechanism and be able to participate in the process as a reviewer of academic programs. Participants from academic programs will also learn about the process of accreditation from different perspectives.

Program Description: This session has been developed to assist academic institutions offering undergraduate and graduate degree programs in forensic science and forensic digital evidence to prepare for the accreditation process through the FEPAC. This session will also assist future on-site evaluators (academic and practitioners) to prepare for on-site evaluations of academic programs. Successful completion of this session will qualify participants for consideration to serve as on-site evaluators for FEPAC in the future (please note that participants must still meet other FEPAC requirements, such as membership in the AAFS and designation as either a practitioner or academician). This training session will highlight updates to the FEPAC Standards for Accreditation and provide valuable information for both program directors and on-site evaluators.

The FEPAC is a standing committee of the AAFS with a membership that includes five educators, five forensic science practitioners, and a public member as voting members. The mission of the FEPAC is to maintain and enhance the quality of forensic science education through a formal evaluation and recognition of college-level academic programs. The FEPAC has been accrediting programs since 2004. The primary function of the committee is to develop and maintain standards and to administer an accreditation program that recognizes and distinguishes high-quality undergraduate and graduate forensic science programs. Forty-five institutions comprising a total of 51 academic programs are currently accredited. Additional information on FEPAC can be found on the FEPAC website.

Program:

8:30 am - 9:00 am	Introduction and Welcoming Remarks/Module 1: What to Know About FEPAC <i>Heidi Eldridge, PhD</i>
9:00 am - 9:30 am	Module 2: An Overview of the FEPAC Application Process <i>Thomas Brettell, PhD</i>
9:30 am - 10:00 am	Module 3: A Review of Self-Study Standards 3.0—General for All Programs <i>Pamela Marshall, PhD</i>
10:00 am - 10:15 am	BREAK
10:15 am - 10:45 am	Module 4: A Review of Self-Study Standards 4.0—Undergraduate Programs <i>Pamela Marshall, PhD</i>
10:45 am - 11:15 am	Module 5: A Review of Self-Study Standards 5.0—Graduate Programs <i>A. Karl Larsen, PhD</i>
11:15 am - 11:45 am	Module 6: Accreditation Decisions and Categories, Appeals Process, Annual Reports, Substantive Changes, and Post-Visit Survey <i>Heidi Eldridge, PhD</i>
11:45 am - 12:15 pm	Module 7: FEPAC On-Site Evaluator Training <i>Amy Brodeur, MFS</i>
12:15 pm - 12:45 pm	Questions and Answers <i>FEPAC Commissioners and Accreditation Manager</i>

STANDARDS FROM AROUND THE WORLD

S1 Standards Around the World: How Is the World of Standards Influencing the Future of Forensics?

Monday, February 1 2025

8:30 am – 5:00 pm

CE Hours: 7.5

Presenters:

Teresa L. Ambrosius, BA
AAFS Standards Board
Colorado Springs, CO;

Agnes D. Winokur, PhD
Drug Enforcement Administration
Miami, FL

Samiah Ibrahim, BA BSc
ForensInk, Ottawa
Ontario, Canada

Erin P. Forry, MS
RTI International
Research Triangle Park, MA

Carolina Rojas, MFS
Department of Forensic Sciences
Organismo de Investigación Judicial
Poder Judicial
San Joaquín, Heredia, Costa Rica

Mark Mogle, BS
U.S. Department of Justice
Washington, DC

Antonel Olckers, PhD
African Academy of Forensic Sciences (AFSA) & DNAbiotec
Pretoria, South Africa

Program Description: Multiple forensic and standards organizations around the world are working with the forensic practitioners and partnering with respective stakeholders across the standards community to develop standards that can increase reliability on forensic analysis results and public trust in the forensic disciplines. These responsive programs and activities are designed to engage professionals across the world of standards and conformity assessment and ensure the strength and efficacy standardization.

There are numerous routes to the development of standards around the world. ISO, the International Organization for Standardization is a non-governmental organization that develops and publishes standards for products, processes, services, and systems. They also help facilitate global trade by providing common standards across different countries. In the US, the American National Standards Institute (ANSI) accredits standards developing organizations that develop discipline specific standards. National Standards Bodies (NSB) are organizations that prepare standards for global use. Each country or economy usually has one recognized NSB.

The morning will have presentations from non-US labs and how they are implementing and getting involved in standards development. An international Forensic Science Academy and a National Standards Body on their involvement with the development and implementation of Forensic Science Standards. In addition, information will be presented on how international standards have been addressing the emergence of machine learning and artificial intelligence, as well as the challenges when developing these standards.

The afternoon will focus on ISO and the TC on Forensics, NATO development of standards, a perspective on international standards from a university, and law enforcement development organization.

Educational Objectives: After attending this presentation, attendees will have a better understanding of how labs and organizations around the world are developing and implementing both US and International Standards. Attendees will also have a better understanding of how they can get involved in standards development around the world.

Impact Statement: The presentation will impact the forensic science community by creating greater awareness of how standards are currently being drafted, used, and implemented internationally and the impact of standards in forensic sciences.

STANDARDS FROM AROUND THE WORLD

S1 Standards Around the World: How Is the World of Standards Influencing the Future of Forensics?

Program:

8:30 am - 9:00 am	Welcome and Introduction
9:00 am - 9:30 am	Implementation of US and/or International Standards in Costa Rica
9:30 am - 10:00 am	Implementation of US and/or International Anthropology Standards in Argentina
10:00 am - 10:30 am	International AI Standards
10:30 am - 11:00 am	African Forensic Science Academy
11:00 am - 11:30 am	National Standards Body Staff or Chair
11:30 am - 12:00 pm	Morning Q&A
12:00 pm - 1:00 pm	BREAK
1:00 pm - 1:45 pm	ISO Forensics Committee on ISO Goals Projects
1:45 pm - 2:30 pm	International Criminal Court
2:30 pm - 3:15 pm	NATO Implementation/Development of Standards
3:15 pm - 4:00 pm	International Standards – University Perspective
4:00 pm - 4:45 pm	International Law Enforcement Development Organization
4:45 pm - 5:00 pm	Afternoon Q&A

YOUNG FORENSIC SCIENTISTS FORUM

Open to All Meeting Registrants—Pre-Registration Encouraged

S2 Back to Your Future: Forensic Opportunities in the AI Era

Tuesday, February 18, 2025

8:00 am – 5:30 pm

CE Hours: 7.5

YFSF Chair:

Sara C. Zapico, PhD

New Jersey Institute of Technology
Smithsonian Institution
Newark, NJ

Brandon Epstein, MS

Magnet Forensics
Freehold, NJ

Christina A. Malone, MSFS

USACIL
Atlanta, GA

Presenters:

Joe Adserias-Garriga, PhD

Mercyhurst University
Erie, PA

Joe Adserias-Garriga, PhD

Mercyhurst University,
Erie, PA

Katherine N. Scafide, PhD, RN

George Mason University
Fairfax, VA

Joanna Collins, MFS

LINUS Investigations and Consulting
San Antonio, TX

Maryann Hobbs, PhD

SNA International
Honolulu, HI

Valerie Sgheiza, PhD

SNA International
Joint Base Pearl Harbor-Hickam, HI

Victoria M. Dominguez, PhD

Lehman College, CUNY
Bronx, NY

Cheryl Hunter

American Academy of Forensic Sciences
Colorado Springs, CO

Christopher Thompson, MD

David Geffen School of Medicine at UCLA
Los Angeles, CA

Sarah Ellingham, PhD

International Committee of the Red Cross
Schwarzenbek, Germany

Douglas S. Lacey, MS

BEK TEK LLC
Stafford, VA

Dirk M. Vastrick, BA

Dirk Vastrick Presents
Spokane Valley, WA

Steven B. Lee, PhD

San Jose State University and FIU
Miami, FL

Program Description: The overall theme of the 2025 AAFS Conference is *Technology: A Tool for Transformation or Tyranny?* This year the YFSF Committee has chosen the theme *Back To Your Future: Forensic Opportunities In the AI Era* to showcase the various career paths young forensic scientists can choose, particularly focused on technological specialties, but also displaying how new technologies impact current forensic practices. This full-day session will present the opportunity for attendees to learn about the many career paths one can take in the forensic science community, and how each plays a unique role in advancing the field.

The speakers have a vast range of knowledge and experiences that will shed light on the ways forensic scientists use technology in the pursuit of justice. Specifically, our presenters will showcase various disciplines in forensic science, speak about performing research in the field, and offer professional development advice as well as international perspectives and practices. The YFSF offers this session in an effort to integrate young professionals and students into the field through presentations by professionals with significant experience in forensic science. Further, the session this year will offer a resume review workshop, so do not forget to bring your updated resume to the session! We will offer an end-of-the-day mixer for attendees to have an opportunity to meet and speak with the session's presenters as well as other distinguished professionals representing a multitude of forensic science disciplines and expertise.

Educational Objectives: The Young Forensic Scientists Forum (YFSF) offers students and young professionals the opportunity to interact with professionals in the forensic science community as they begin their careers. This session presents attendees with the chance to learn about the multitude of careers available in forensic science as well as develop professional skills that are essential for the job-hunting process. Our mission is to provide the education, mentorship, and resources necessary to champion students and young forensic scientists to promote interest, membership, and participation with AAFS and the forensic science community for years to come.

Impact on the Forensic Science Community: After attending this session, attendees will have a better understanding of the diversity of roles and career paths in the forensic science community and how each plays an integral part in furthering the field on a national and international level. Additionally, attendees will have the opportunity to sharpen their professional skills in resume writing and making impactful introductions.

YOUNG FORENSIC SCIENTISTS FORUM

S2 Back to Your Future: Forensic Opportunities in the AI Era

Program:

- 8:30 am - 8:45 am **Introduction to the Special Session**
Maryann Hobbs, PhD; Sai Zapico, PhD
- 8:45 am - 9:10 am **Careers in Forensic Psychiatry**
Christopher Thompson, MD
- 9:10 am - 9:30 am **Forensic Sciences: Creating Your Path**
Joanna Collins, MFS
- 9:30 am - 9:50 am **AAFS Membership**
Cheryl Hunter
- 9:50 am - 10:20 am **The Young Forensic Scientist's Compass: Navigating Careers and Growth**
Mirna Ghemrawi, PhD
- 10:20 am - 10:30 am **BREAK**
- 10:30 am - 11:00 am **Illuminating the Invisible: Leveraging AI and Alternate Light for Forensic Bruise Detection**
Katherine Scafide, PhD, RN
- 11:00 am - 11:30 am **Getting Hired Faster and Better: Who Do AI Tools Really Cheat?**
Dirk Vastrick, BA
- 11:30 am - 12:00 pm **Digital and Multimedia Forensics: One "Byte" at a Time**
Doug Lacey, MS
- 12:00 pm - 1:00 pm **BREAK**
- 1:00 pm - 1:20 pm **Not All Black and White: Developing a Career in Digital and Multimedia Forensics**
Christina Malone, MSFS
- 1:20 pm - 2:00 pm **Back to Basics: Why Hard Forensics Skills Will Remain Relevant in the AI Era**
Sarah Ellingham, PhD
- 2:00 pm - 2:30 pm **How Technology Elevates the PM (and AM) Skeletal Analysis**
Joe Adserias-Garriga, PhD
- 2:30 pm - 3:00 pm **Field Sites and Microscope Fields: A Multidisciplinary Path in Forensic Anthropology**
Victoria Dominguez, PhD
- 3:00 pm - 3:15 pm **BREAK**
- 3:15 pm - 3:40 pm **R We There Yet?: Coding to Buffer Financial Stress During Education and Training**
Valerie Sgheiza, PhD
- 3:40 pm - 4:00 pm **Forensic Science Careers: Resources, Tips, and Opportunities**
Steve Lee, PhD
- 4:00 pm - 4:30 pm **From Patrol Officer to Digital Examiner: My Evolution in Crime Solving**
Brandon Epstein, MS
- 4:30 pm - 5:00 pm **Resume Review Workshop**
Dirk Vastrick, BA
- 5:00 pm - 5:30 pm **Meet the Speakers Mixer**

INTERDISCIPLINARY SYMPOSIUM

Open to All Meeting Registrants—Pre-Registration Encouraged

S3 Technology: A Tool for Transformation or Tyranny?

Tuesday, February 18, 2025

1:00 pm – 6:00 pm

CE Hours: 3.5

Chair:

Yong Guan, PhD

Iowa State University
Ames, IA

Co-Chair:

Katharine Pope, MA

RTI International
Research Triangle Park, NC

Presenters:

Kenneth Aschheim, DDS

NYC Office of the Chief Medical Examiner
New York, NY

Nancy Downing, PhD, RN

UNTHSC College of Nursing
Fort Worth, TX

Katherine Scafiede, PhD, RN

George Mason University
School of Nursing
Fairfax, VA

JoAnn Buscaglia, PhD

FBI Laboratory
Quantico, VA

Zeno Geradts, PhD

Ministry of Security and Justice
Den Haag, Netherlands

Hon. Donald Shelton, JD, PhD (ret.)

University of Michigan-Dearborn
Saline, MI

Alicia Carriquiry, PhD

Iowa State University
Ames, IA

Thomas P. Paonessa, Jr., MS

The MITRE Corporation
McLean, VA

Lucas Zarwell, MSFS

National Institute of Justice
Washington, DC

Sarah Chu, PhD

Perlmutter Center for Legal Justice at
Cardozo Law
New York, NY

Program Description: The 2025 AAFS Annual Scientific Conference's Interdisciplinary Symposium (IDS) spotlights the theme "Technology: A Tool for Transformation or Tyranny?" through a dynamic program of three keynote talks and two engaging panel discussions. The free event brings together leading experts representing all sections of forensic science in a mission to explore how technology shapes the field. IDS keynote speakers are Dr. Joanne Buscaglia from the FBI, Mr. Thomas P. Paonessa Jr. from MITRE, and Mr. Lucas Zarwell from the NIJ. Their presentations will address the integration of cutting-edge technology into forensic operations, the importance of adhering to the scientific method, and the challenges of transitioning innovative research into practical applications.

The first IDS panel, moderated by Dr. Yong Guan, focuses on "Artificial Intelligence (AI) in Forensics" and features insights from Zeno Geradts, JoAnne Buscaglia, Thomas P. Paonessa Jr., Kenneth Aschheim, and Alicia Carriquiry. This session explores the dual role of AI in forensic science—its potential to enhance accuracy and efficiency, alongside ethical concerns such as bias and privacy risks. Speakers detail real-world case studies and emerging AI tools to shed light on the question of whether AI serves as a transformative ally or a potential threat in the pursuit of justice.

The second IDS panel, moderated by Katharine Pope, delves into "Emerging Technologies and Legal Implications" and features insights from Alicia Carriquiry, Lucas Zarwell, Donald Shelton, Katherine Scafiede, Nancy Downing, and Sarah Chu. This session explores how advancements in forensic tools transform investigations while raising critical legal and ethical questions. Topics range from probabilistic genotyping and forensic investigative genetic genealogy to policies safeguarding data collected during the criminal process. The entire IDS aims to provide forensic professionals with valuable insights into leveraging technology responsibly while addressing its challenges, fostering a thoughtful and collaborative approach to the future of forensic science across the sections.

INTERDISCIPLINARY SYMPOSIUM

S2 Technology: A Tool for Transformation or Tyranny?

Educational Objectives: Participants will gain a comprehensive understanding of the transformative role of technology in forensic science, critically evaluating its dual capacity as a tool for innovation and a source of ethical and operational challenges. Attendees will learn about advancements in artificial intelligence and emerging technologies, their implications for forensic practices, and the evolving legal and societal standards shaping the future of forensic applications.

Impact on the Forensic Science Community: The 2025 IDS aims to provide attendees with an understanding of how emerging technologies are transforming forensic science and its applications in justice. Participants will gain insights into the dual role of artificial intelligence (AI) as both a tool for enhancing accuracy and a potential source of ethical challenges, such as systemic bias and privacy concerns. Presenters will also emphasize the importance of critical thinking and adherence to the scientific method in evaluating technological advancements, as well as the challenges of transitioning research into operational practice. By exploring real-world examples, legal implications, and case studies, attendees will learn how to responsibly adopt and integrate technologies such as probabilistic genotyping, forensic investigative genetic genealogy, and AI tools, while addressing ethical, legal, and practical concerns. Additionally, IDS aims to foster interdisciplinary dialogue on how technology can support victims of violence and uphold justice, ensuring that forensic innovations contribute positively to society.

Program:

1:00 pm – 1:45 pm	A Multidisciplinary Perspective on Research, Development, Technology, and Transition Into Forensic Science Operations <i>JoAnn Buscaglia, PhD</i>
1:45 pm – 2:30 pm	The Facts Matter—Trust the Scientific Method <i>Thomas P. Paonessa, Jr., MS</i>
2:30 pm – 3:00 pm	A Perspective on Adopting New Technology in Forensics—This Isn't "New" <i>Lucas Zarwell, MSFS</i>
3:00 pm – 3:15 pm	BREAK
3:15 pm – 4:30 pm	Artificial Intelligence (AI) in Forensics <i>Yong Guan, PhD (Moderator); Zeno Geradts, PhD; JoAnn Buscaglia, PhD; Thomas P. Paonessa, Jr., MS; Kenneth Aschheim, DDS; Alicia Carriquiry, PhD</i>
4:30 pm – 6:00 pm	Emerging Technologies and Legal Implications <i>Katharine Pope, MA (Moderator); Alicia Carriquiry, PhD; Lucas Zarwell, MSFS; Donald Shelton, JD, PhD; Katherine Scafiede, PhD; Nancy Downing, PhD, RN; Sarah Chu, PhD</i>

HUMANITARIAN AND HUMAN RIGHTS RESOURCE CENTER

Open to All Meeting Registrants

Poster Session

Tuesday, February 18, 2025

6:00 pm – 8:00 pm

Moderator:

Dawnie W. Steadman, PhD

HHRRC Chair

Director, Forensic Anthropology Center

University of Tennessee

Knoxville, TN

Co-Moderator:

Jeri D. Roper-Miller, PhD

AAFS Past President (2021-2022)

FTCOE Project Director

RTI International

Research Triangle Park, NC

The Humanitarian and Human Rights Resource Center (HHRRC) of the American Academy of Forensic Sciences (AAFS), with support from the National Institute of Justice's (NIJ's) Forensic Technology Center of Excellence (FTCOE), provides needed resources and support to apply modern forensic science to global humanitarian and human rights projects. This HHRRC Poster Session is an open meeting where attendees can learn about the application of forensic science to investigate humanitarian and human rights injustices. More information on this event is available at <https://forensiccoe.org/event-2025-hhrrc-virtual-library/>.

Posters presentations will be published the week of January 6.

KEYNOTE ADDRESS

Open to All Meeting Registrants

Wednesday, February 19, 2025

8:30 am – 9:30 am



Michael Rogers

New York, NY

Michael Rogers is a best-selling author, technology pioneer, and futurist who also recently served as futurist-in-residence for *The New York Times*. His consultancy, Practical Futurist, has worked with companies ranging from FedEx, Boeing, and NBC Universal to Microsoft and Pfizer, focusing on how organizations can think about the future in useful ways. He speaks to audiences worldwide and is a regular guest on radio and television.

Rogers began his career as a writer for *Rolling Stone* magazine. He co-founded *Outside* magazine, then launched *Newsweek's* technology column, winning numerous journalism awards. For ten years, he was vice president of *The Washington Post Company's* new media division, leading both the newspaper and *Newsweek* into the new century and earning patents for multimedia technology as well as awards for his online coverage of 9/11. He is also a best-selling novelist whose books have been published worldwide, chosen for the Book-of-the-Month club, and optioned for film.

Rogers studied physics and creative writing at Stanford University, with additional studies in finance and management at the Stanford Business School Executive Program. He lives in New York City and is currently working on book and television projects. His latest book is *Email from the Future: Notes from 2084*.

Sponsored by:



PLENARY SESSION

Open to All Meeting Registrants

Wednesday, February 19, 2025

10:00 am – 11:30 am

CE Hours: 1.5



Welcoming Remarks

Christopher R. Thompson, MD
AAFS President
American Academy of Forensic Sciences
Los Angeles, CA

Plenary Session Chair:

Dean De Crisce, MD
Psychiatrist, Special Treatment Unit
Avenel, NJ

Plenary Session Co-Chair:

Marla E. Carroll, BS
Forensic Video & Audio Associates, Inc.
Plantation, FL

The AAFS Plenary Session is designed to provide a multidisciplinary presentation and discussion of issues related to the conference theme—*Technology: A Tool for Transformation or Tyranny?*—and how it affects the forensic science profession.

PLENARY SESSION

Open to All Meeting Registrants

Speakers, program description, and schedule to be announced soon!

CASE BREAK SESSIONS

CB1 “Excited Delirium”: Abuse, Use, and Bias of This Term in the Courtroom

Tuesday, February 18, 2025

8:30 am – 9:30 am

CE Hour: 1.0

Stephanie Domitrovich, PhD
Administrative Office of PA Courts
Erie, PA

Milton Nuzum III, JD
Former Judge
Vincent, OH

Educational Objectives: Attendees will assume the role of the judge in each hypothetical case to determine the admissibility of expert testimony on the cause of death by applying the appropriate evidentiary standards for admissibility of the testimony. Underlying each scenario is the controversy of racial or ethnic bias affecting the diagnosis of cause of death. Attendees will understand how the diagnosis can impact the potential criminal or civil liability on the part of the responding law enforcement officers or first responders involved in each case. Is there qualified immunity for law enforcement? Attendees will understand the dilemmas that judges have in admitting testimony proffered by experts in these cases and how those dilemmas have been or are resolved.

Impact on the Forensic Science Community: This presentation will inform the forensic science community by presenting a series of hypothetical emergency scenarios based on actual court cases where law enforcement and first responders are dispatched to an emergency crime scene resulting in detention and treatment of an alleged perpetrator. Each scenario involves a tragic situation that results in the death of the perpetrator at the scene. Attendees will understand the dilemmas that judges have in admitting testimony proffered by experts in these cases and how those dilemmas have been or are resolved.

Program Description: After attending this presentation, attendees will understand legal principles for the qualification of expert witnesses and foundational requirements of admissibility expert testimony in civil and criminal cases specifically related to fatalities diagnosed as resulting from “Excited Delirium”. While this diagnosis is recognized as a valid diagnosis in the medical community, not all embrace its validity. Attendees will understand the controversy of this diagnosis as a shield from liability for abusive injury and racial bias by law enforcement and first responders.

Each death is diagnosed by an expert as caused by excited delirium. At issue in each scenario is whether the death was from natural causes, self-inflicted, excessive force, or inappropriate medical treatment. Attendees will assume the role of the judge in each hypothetical case to determine the admissibility of expert testimony on the cause of death by applying the appropriate evidentiary standards for admissibility of the testimony. Is there qualified immunity for law enforcement?

CASE BREAK SESSIONS

CB2 The Collapse of Surfside: A Multifaceted Approach to Disaster Victim Identification

Tuesday, February 18, 2025

10:00 am – 11:00 am

CE Hour: 1.0

Heather A. Walsh-Haney, PhD

Florida Gulf Coast University
Human Identity and Trauma Analysis Laboratory
Fort Myers, FL

Kenneth Hutchins, MD

Florida District 11 Office of the Medical Examiner
Miami, FL

Micki Besse, MS

Florida Gulf Coast University
Human Identity and Trauma Analysis Laboratory
Fort Myers, FL

Benjamin Mathis, MD

Florida District 11 Office of the Medical Examiner
Miami, FL

Katherine Kenerson, MD

Florida District 11 Office of the Medical Examiner
Miami, FL

Educational Objectives: After this presentation, attendees will understand the protocols and technologies implemented after a mass fatality event in Surfside, FL.

Impact on the Forensic Science Community: This presentation introduces the forensic science community to physical and digital decedent documentation following a mass fatality incident with a closed population from a forensic anthropological perspective as guided by the needs of the medical examiner and law enforcement personnel as well as the various community stakeholders.

Program Description: Forensic Anthropologists (FA) are called to assist in the discovery, recovery, inventory, and estimation of the Minimum Numbers of Individuals (MNI) represented by skeletal remains, irrespective of the decomposition state of the decedent. FAs also assist in the process of identification, trauma analysis, and reunification of human remains to their legal next of kin following mass fatality incidents.¹⁻³ On June 24, 2021, the South Champlain condominium collapsed, prompting the search, rescue, and recovery of a closed population comprised of 98 fatalities. Post-incident, the FAs were responsible for creating a skeletal inventory and MNI as requested by the medical examiner, law enforcement, families, and community leaders.

CASE BREAK SESSIONS

CB3 Forensic Identification of Synthetic Data: Identification and Isolation Techniques

Wednesday, February 19, 2025

7:15 am – 8:15 am

CE Hour: 1.0

Joseph C. Sremack, MS

Forensic Data Analytics

Marcum LLP

New York, NY

Educational Objectives: Attendees will gain an understanding of what synthetic data is and how it is used, scenarios in which synthetic data needs to be identified in an investigation, and the results of techniques applied to the identification process. The presentation will focus on a case study, in which synthetic data was present, on how fraud analysis techniques were applied to identify the special characteristics of synthetic data and the analysis findings and results.

Impact on the Forensic Science Community: The presentation will provide the forensic science community with a better understanding of the emerging area of synthetic data, why it matters to a variety of cases requiring forensic analysis, and how such data can be identified and isolated vis-à-vis ground truth data.

Program Description: Synthetic data represents a new class of data that poses risks to large-scale forensic data analysis if not properly accounted for and isolated during an investigation. The use of synthetic data extends beyond artificial model training data, as it can be used to create falsified transactions or simply be indistinguishable from ground truth data. The presence of synthetic data increases risks to data reduction efforts and increases the likelihood of false positives.

CASE BREAK SESSIONS

CB4 Maximizing the Impact of Social Science Research and Evaluation on Forensic Science: The NIJ's Role in the Integration of Science

Thursday, February 20, 2025

7:15 am – 8:15 am

CE Hour: 1.0

Danielle M. Crimmins, PhD

National Institute of Justice
Department of Justice
Washington, DC

Jillian Barnas, PhD

AAAS/NIJ
Washington, DC

Jonathan McGrath, PhD

U.S. Customs and Border Protection
Houston, TX

Educational Objectives: After attending this presentation, attendees will understand: (1) how social science research and evaluation provides objective evidence to advance the fair and impartial administration of justice; (2) the application of social science research and evaluation methods to study the forensic science disciplines, including examples from the National Institute of Justice (NIJ's) Social Science and Forensic Research (SSRFS) portfolio; and (3) a discussion of the benefits, challenges, and future research directions to address the needs of the field.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by discussing the benefits and challenges of using social science research to formulate meaningful research questions and develop rigorous research designs to advance the impact and understanding of the forensic sciences. This presentation will also foster a discussion between researchers and forensic science practitioners on ways to assess and measure the impact of forensic science disciplines.

Program Description: The effective use of forensic science provides timely and impactful answers to the criminal justice system. The application of social science research methods and multidisciplinary partnerships can shed light on how the criminal justice system and forensic science practitioners can maximize the role and value of the forensic sciences. As forensic science innovations are implemented into practice, advancements such as the identification of emerging drug threats, 3D virtual microscopy for firearms evidence, digital and multimedia evidence, and rapid DNA and other field deployable technologies offer opportunities to empirically examine their impact on justice system outcomes. For instance, social science methods can aid in understanding how the implementation of current and new technologies, methods, or workflow processes impact backlog reduction, capacity enhancement, cost relative to benefit, workforce development, and case closure efficiency.

CASE BREAK SESSIONS

CB5 The Role of Y-STR Analysis in Forensic Genetic Genealogy (FGG)

Thursday, February 20, 2025

7:15 am – 8:15 pm

CE Hour: 1.0

Colleen M. Fitzpatrick, PhD

President, Identifinders International LLC
Fountain Valley, CA

Educational Objectives: Upon attending this presentation, attendees will gain insight into the evolution of Forensic Investigative Genetic Genealogy (FGG) from Y-chromosomal Short Tandem Repeat (Y-STR) analysis through autosomal SNP testing. Case studies will be presented illustrating the use of Y-STR FGG to generate investigative leads on cases where the DNA has been exhausted or where a mixture is present. Attendees will also learn how Y-STR FGG can reduce the complex genealogical research often required by autosomal SNP testing by narrowing the possibilities within a family tree to only individuals with a given last name. The presentation will include statistics indicating the probability of successfully obtaining a last name using the technique.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by demonstrating the synergy that exists between Y-STR and autosomal SNP analysis techniques. The presentation will broaden the understanding of how FGG developed over the past few years to become a powerful tool that has brought resolution to over 1,100 cold cases as of December 2023.

Program Description: Y-STR testing was first introduced in 2000 by several Direct-to-Consumer (DTC) DNA testing companies as a means of complementing genealogical records with genetic data. The popularity of Y-STR analysis as a tool for genealogical research grew rapidly, especially among male adoptees, because of the patrilineal co-inheritance of the Y chromosome with the family surname. A male adoptee could take a Y-STR test; a match found in the FGG databases would indicate a possible name for his birth father.

CASE BREAK SESSIONS

CB6 Fiction vs. Science: The Yara Gambirasio Case on Netflix

Thursday, February 20, 2025

7:15 am – 8:15 am

CE Hour: 1.0

Luciano Garofano, PhD

Italian Academy of Forensic Science
Parma, Emilia-Romagna, Italy

Michele Vaira, JD

Criminal Procedure and International Criminal Law
Vaira Law Firm
Parma, Italy

Educational Objectives: After attending this presentation, participants will understand how journalistic investigations and TV dramas can mislead the perception of the facts established in criminal trials.

Impact on the Forensic Science Community: This presentation will highlight the danger that biased informati'n may influence public opinion on the fairness of judicial decisions and, in jury-based legal systems, sway the jury's perspective.

Program Description: The case concerns the murder of Yara Gambirasio, a 13-year-old girl, which took place on February 26, 2010, in a small town called Brembate di Sopra (Bergamo-Italia). Three months after her disappearance, on February 25, 2011, her dead body was found in a field, frozen and partially decomposed. Yara had several stab wounds, including to her throat, but she died of starvation and cold.

CASE BREAK SESSIONS

CB7 Unveiling Forensic Signatures: Leveraging Soil Microbiome and Enzymatic Responses to Detect Cyanide-Induced Deaths

Friday, February 21, 2025

7:15 am – 8:15 am

CE Hour: 1.0

Aby Joseph

Amity University Dubai
Dubai, United Arab Emirates

Jannath Manaf, MASc

Amity University Dubai
Dubai, United Arab Emirates

Muhammad Safar S. P.S, MASc

Amity University Dubai
Dubai, United Arab Emirates

Educational Objectives: By the end of the presentation, attendees will have a comprehensive understanding of how soil microbiome and enzymatic responses to cyanide can enhance forensic detection methods, along with practical knowledge on implementing these techniques in real-world forensic settings.

Impact on the Forensic Science Community: This presentation will have a profound impact on the forensic science community by introducing innovative methodologies to improve cyanide detection in postmortem investigations. The proposed integration of soil microbiome analysis and enzymatic activity profiling represents a significant advancement over conventional toxicological techniques, which often fall short in detecting cyanide in extensively decomposed remains.

Program Description: This study investigates the responses of soil microbiomes and enzymatic activities to cyanide exposure from decomposing rodent remains, aiming to improve forensic detection methods for cyanide-induced deaths. Cyanide is a potent poison that poses significant challenges in forensic investigations due to its rapid degradation and the complexity of detecting it in extensively decomposed bodies. This research combines microbial community analysis, enzymatic assays, and advanced analytical techniques to develop more reliable methods for identifying cyanide exposure postmortem.

CASE BREAK SESSIONS

CB8 Forensic Examination of Environmental Crime and Its Solutions

Friday, February 21, 2025

7:15 am – 8:15 am

CE Hour: 1.0

Ashfaq Ahmed Kharal, Jr., PhD
Supreme Court
Lahore, Punjab, Pakistan

Educational Objectives: The attendees are interested in a green and clean environment and are using technology to trace the elements of crimes creating pollution and hazards.

Impact on the Forensic Science Community: No one can deny the impact of a clean environment as it is a need not only in this era but is very emphatic all the time without any discrimination and the use of technology for highlighting these crimes by forensic analysis is the most important impact.

Program Description: Environmental forensic examinations are an essential component of environmental crime investigations. Environmental forensic whizzes assist factfinders in reenacting the occasion timeline, assessing the size of the destruction and causality. Their sentiments are of ultimate germaneness to environmental criminal stuff. Thus, it is critical to confirm that expert examinations are steered following scientific canons providing reasonably more truthful and steadfast results. In the article, two different slants to the organization of environmental forensic examinations were equated. Forensic examination has been conducted in two states, especially in Russia; the consolidated and more rigid model has been practical concerning environmental forensic studies, while in Poland, such inspections are navigated by decentralized forensic laboratories and self-regulating consultants. The authors deliberated existing variances and parallels between those two methods.

DEEP-DIVE SESSIONS

New in 2025, the Professional Deep-Dive Breakouts are designed to showcase content and topics not typically included in the oral scientific session or poster session categories, but are still of strong interest and importance to the forensic and greater professional communities. These sessions are designed to be highly engaging and interactive with the attendees, focusing on professional development topics, technology use cases, and other content aimed at furthering personal and professional skills and knowledge.

DD1 Leveraging Forensic Science Standards Development to Boost Your Professional Growth

Thursday, February 20, 2025

1:00 pm – 2:00 pm

CE Hour: 1.0

Kris Cano, MA

Signature Science, LLC
Scottsdale, AZ

J. Keith Pinckard, MD, PhD

Travis County Medical Examiner Office
Austin, TX

Educational Objectives: After attending this presentation, attendees will learn about the importance of documentary standards in forensic sciences, how the standards development process works, and how participating in standards development can help develop skills and abilities that can advance one's career trajectory while also advancing the field.

Impact on the Forensic Science Community: Participating in standards development is more than just a task; it is an opportunity to shape the future of forensic science and advance your career. By embracing this work, you not only contribute to the quality and consistency of forensic practice but also enhance your own professional growth and leadership capabilities. This session aims to help you recognize and leverage these benefits, turning what may seem like a thankless task into a powerful career-building tool.

Program Description: The process of standards development and implementation in forensic science can indeed seem daunting and underappreciated. Engaging in standards development sharpens your skills and deepens your understanding of the forensic science field. It challenges you to think critically, solve complex problems, and engage with a wide range of perspectives from professionals with diverse expertise. This process enhances your ability to lead, communicate effectively, and navigate complex scenarios—skills that are invaluable as you advance in your career. By participating in the creation and implementation of standards, you position yourself as a leader within your organization and the broader forensic community. These experiences not only boost your leadership credentials, but also amplify your influence in shaping your field's direction. By contributing to the development of these standards, you help ensure that forensic practices are consistent, scientifically sound, and widely accepted. Being involved in standards development can set you apart from your peers and open doors to new opportunities. It demonstrates your commitment to the field and your willingness to tackle challenging and sometimes unglamorous tasks. This proactive approach can lead to recognition, career advancement, and greater professional satisfaction. The skills you develop in standards development are transferable to other areas of your career. Whether it's crafting policies, handling crucial conversations, or managing public perception, developing the analytical and strategic thinking involved in standards work will serve you well.

DEEP-DIVE SESSIONS

DD2 Legal Admissibility of Digital Evidence in the Era of AI-Generated/Synthetic Media

Thursday, February 20, 2025

4:00 pm – 5:00 pm

CE Hour: 1.0

Brandon Epstein, MS
Magnet Forensics
Freehold, NJ

Chichi Lee, LLM
Middlesex County District Attorney's Office
Waltham, MA

Educational Objectives: Attendees with a legal background will learn the authentication issues surrounding AI-generated or -modified synthetic media such as photos and videos, including several proposals to amend the authentication rules under Fed. R. Evid. 901(a). They will also learn how to admit expert testimony on synthetic media under Fed. R. Evid. 702, including possible challenges to the experts' qualifications, principles, and methods.

Attendees with a forensic background will learn the issues that may come up in court from pretrial motions in limine to qualify the expert under Fed. R. Evid. 702. Forensic expert attendees will learn how an attorney will present their testimony in court and what an opposing party might contest as to their qualifications, principles, methods. While going through these, the attendees will also learn the relevant technology surrounding synthetic media.

Impact on the Forensic Science Community: Because synthetic media authentication is new, this presentation will introduce the admissibility of synthetic media authentication in court to the forensic science community. This presentation will allow the forensic experts to: (1) understand if their qualifications and their training that they provide to future experts will pass the legal muster, and (2) allow the forensic experts to have a preview of their future testimony in court; whether they are understandable to non-experts and reliable under the law, with a portion of a mock direct examination. With this presentation, scientists will be able to work with legal practitioners to overcome the hurdles in court and further their trustworthiness in the legal world with this new, developing authentication method.

Program Description: Although synthetic media, such as Adobe Photoshop, is not new, generative AI has created a new era of synthetic media. Now, synthetic media is accessible to the general public without training, is easier to manipulate, and is easier to create on a large scale. When AI-generated or -altered photos or videos are knocking on the court's door, they will undoubtedly impact how lawyers and judges look at both civil and criminal cases.

This presentation will introduce the issues surrounding the unavoidable challenges to the authenticity of photos and videos introduced in court where attorneys and judges have to deal with authentication under Fed. R. Evid. 901. This presentation will also discuss and comment on several proposals to alter Rule 901 in response to the rise in AI-generated synthetic media.

But there's more. With AI-generated synthetic media, the ability of detecting synthetic media and authenticating photos and videos becomes paramount. This is especially true in the era of synthetic media where the jury may start questioning everything they see or hear. This presentation will introduce how a synthetic media authentication expert passes Daubert v. Merrell Dow Pharmaceuticals, Inc. and Fed. R. Evid. 702. With a portion of a mock direct examination, the presentation will walk you through the expert's qualifications, the underlying facts and data, and the reliable principles and methods the expert uses. In that vein, we will also see some of the challenges the opposing party may present.

DEEP-DIVE SESSIONS

DD3 Balancing the Scales: Supporting Mental Health in Forensic Science

Thursday, February 20, 2025

4:30 pm – 6:00 pm

CE Hours: 1.5

Kevin Kulbacki, MSFS

KDX Forensic Consulting

Chicago, IL

Educational Objectives: By the end of this session, attendees will be able to: (1) identify common mental and emotional health challenges faced by forensic practitioners and their root causes, (2) apply at least two evidence-based strategies for personal mental health resilience shared during the session, (3) evaluate organizational practices that foster supportive mental health environments and determine how these can be implemented in their own workplaces, and (4) engage in peer-sharing to adopt innovative tips and ideas for enhancing mental well-being in forensic science roles.

Impact on the Forensic Science Community: The mental and emotional well-being of forensic practitioners is critical to maintaining the integrity and effectiveness of their work. This session highlights the importance of addressing mental health at both personal and organizational levels, creating a platform for open dialogue and shared learning within the forensic science community. By equipping attendees with practical tools, fostering peer connections, and promoting awareness, the session aims to cultivate a healthier, more resilient workforce. The insights gained will not only benefit individual practitioners but also contribute to a more supportive culture across forensic agencies, enhancing the overall quality and sustainability of the field.

Program Description: Forensic practitioners often face unique mental and emotional challenges due to the nature of their work. This session brings together insights from diverse perspectives to address these challenges and explore solutions. Through presentations by a practitioner, an organizational leader, and a mental health professional, attendees will gain actionable strategies to enhance individual resilience, foster supportive workplace cultures, and access professional resources. The session concludes with an open discussion, inviting participants to share practices, tips, and ideas to collectively improve well-being in the forensic field.

DEEP-DIVE SESSIONS

DD4 Determining the Viability of Breathwork and Meditation as Intervention Techniques for Stress in the Forensic Science Community

Thursday, February 20, 2025

12:00 PM – 1:30 PM

CE Hours: 1.5

Prateek Shetty, BSc

University of Central Oklahoma
Edmond, OK

Keisha Jones, MS

University of Central Oklahoma
Edmond, OK

Educational Objectives: Attendees of the presentation will learn about the impact of breathwork (cyclic sighing) and meditation as methods to mitigate workplace stress in the forensic science field. Data gathered from analyzing variations in stress among students studying forensic science and professionals working in the field before and after implementing the interventions will be discussed along with the future implications and research opportunities. Session attendees can expect to learn the methods implemented in the study, practice them during this presentation, and join a discussion about how these methods could be implemented in their everyday lives.

Impact on the Forensic Science Community: Attending this session will allow participants to learn about stress mitigation techniques such as breathwork (cyclic sighing) and meditation, which can be implemented in their personal lives and help them combat workplace stressors that come with being a part of the forensic science community. Learning and practicing these exercises can contribute to the growth of a holistically healthy forensic science workspace in the present and future.

Program Description: Are you stressed out because of the things that happen at work? Do you want to improve how you deal with stress in the workplace? Are you a prospective or present member of the forensic science workforce? If your answer to one or all these questions was a resounding, "YES," this session is for you!

Join the discussion to share personal stories of stress in the field. Learn what research has to say about how practicing breathwork and meditation could impact the busy life of a forensic science professional. But don't worry, you won't be bored with just the numbers from a research study. You will also get to practice these exercises and take these tools with you to use in your everyday life as a forensic science professional or student.

Join us in this session as we explore the possibilities of using our breathing patterns to help build a holistically healthy forensic science workforce for the present and the future!

DEEP-DIVE SESSIONS

DD5 Misconceptions and Limitations of Words Commonly Used in the Forensic Sciences—What Do They REALLY Mean?

Friday, February 21, 2025

9:30 am – 10:30 am

CE Hour: 1.0

Charlotte Word, PhD

Charlotte Word Consulting
Richmond, VA

John D. Schmid, JD

Sixth District Public Defender's Office
Duluth, MN

Educational Objectives: After attending this session, both forensic science practitioners and members of the legal community should have an increased awareness of terms and associated language with a high susceptibility of being misinterpreted during judicial proceedings. Attendees should gain an increased understanding and appreciation of the meaning and strengths of the four focus areas to be discussed, along with their limitations and common misinterpretations. Insights into the need for effective training and communications with robust safeguards to ensure the reliability of forensic science evidence presented in court should be gained by the attendees, along with knowledge regarding mechanisms of improvement and potential ways to overcome any apparent obstacles.

Impact on the Forensic Science Community: This presentation will impact the forensic science community through training and discussions aimed to improve stakeholder competence, performance, and outcomes by facilitating an accurate understanding of common laboratory quality assurance terms frequently misinterpreted in court proceedings. By increasing awareness of the strengths and limitations of scientific and legal safeguards, forensic science practitioners will be better equipped to avoid misstatements and errors in testing, reporting, and testimony.

Program Description: Quality crime/forensic science laboratories routinely participate in audits to achieve accreditation as well as training competency and proficiency testing, conduct validation studies prior to commencing casework testing with a new method or product, and provide discovery following jurisdictional requirements. These practices are in place to ensure reliability of the testing conducted and the results reported. However, the roles and meaning of these processes are often misunderstood both by laboratory personnel and the legal community. The goal of this session is to address these issues by providing training regarding these topic areas and their potential to collectively ensure reliability while addressing the misunderstandings among stakeholders about the limitations of each individual safeguard.

The four primary discussion areas will focus on: (1) laboratory accreditation and audits; (2) competency and proficiency testing; (3) validation studies; and (4) legal rules of evidence and discovery. The training and discussions will address: (1) what each of these terms actually mean in the context of the laboratory, including their strengths and limitations; (2) how they are often misunderstood in the legal context; (3) ways in which they are miscommunicated through conversations and during testimony in court; and (4) an exploration of ways to overcome identified obstacles and common misunderstandings. The attendees will be encouraged to engage in discussions regarding the proper use of the terms, their perceived misunderstandings and communicating their own ideas for improvement.

This session will be targeted to a mixed audience of legal and scientific practitioners with diverse experiences and backgrounds.

DEEP-DIVE SESSIONS

DD6 Using Forensic Investigative Genetic Genealogy (FIGG) Technology Ethically and Responsibly

Friday, February 21, 2025

1:00 pm – 2:00 pm

CE Hour: 1.0

Catherine Cupples Cannon, PhD
Virginia Commonwealth University
Richmond, VA

Educational Objectives: After attending this deep-dive session, attendees will be aware of key concerns regarding the use of FIGG and the need to use this technology in an ethical and responsible manner. We will discuss: (1) what types of cases this technology should be limited to, (2) privacy considerations, (3) use of approved genetic genealogy databases, (4) the intersection of law enforcement, forensic laboratories, and FIGG investigators, and (5) appropriate and necessary documentation. Last, we will also address the needs for legislation, research, and FIGG certification/training.

Impact on the Forensic Science Community: This session will impact the forensic science community by offering much-needed guidance surrounding appropriate practices of the emerging FIGG field and its related technologies.

Program Description: FIGG is a new and emerging field of forensic DNA analysis that serves as an investigative tool for law enforcement. Though powerful, it is not appropriate for use with all forensic cases containing DNA evidence. Currently, it is specifically reserved for violent crimes in which a traditional Short Tandem Repeat (STR) profile has not been fruitful from an investigative standpoint, including unidentified human remains cases. Furthermore, when we think about privacy concerns, we must consider the fact that individuals unassociated with the crime may be linked to it for no reason other than being genetically related to the individual in question; thus, necessary precautions must be taken to protect their identities. As an extension of this, only genetic genealogy databases that have been approved for law enforcement use may be utilized—with strict regulation and oversight to boot. Such databases include GEDmatch Pro and FamilyTreeDNA. Throughout this process, cooperation and collaboration of law enforcement, the forensic laboratory, and the FIGG investigator is crucial. These roles will be discussed, including whether overlap is acceptable or if complete separation is needed. Accurate documentation is essential; we will discuss finding a balance between thoroughness and timeliness to ensure quality documentation.

The session will conclude with discussions of what is still needed with respect to legislative regulations, research related to the technology itself, as well as what kind of formal FIGG certification/training is needed, if any.

LUNCHEON SEMINAR

Pre-Registration Required — \$85

LS1 Empowering Forensic Science: How Technology, Building Intelligence, and Human-Centered Design Can Revolutionize the Forensic Workplace

Thursday, February 20, 2025

11:30 am – 1:00 pm

CE Hour: 1.0

Jinhee Lee, March

Crime Lab Design
Royal Oak, MI

Ken Mohr, BS

Crime Lab Design
Royal Oak, MI

Scott Morgan, BS

Crime Lab Design
Royal Oak, MI

Program Description: Global case studies from Asia and the Middle East illustrate the successful application of automated waste management, delivery systems, and Automated Guided Vehicles (AGVs) in addressing staff shortages and reducing physical strain. Notably, 95% of newly built hospitals in the United States now use Tissue Sample Movement Pneumatic Tube Systems, which enhance sample transport efficiency. Medical Examiner's Offices (MEOs) benefit from automated racking systems that increase storage capacity while reducing physical strain on staff, and Automated Mobile Robots (AMRs) streamline the handling of hazardous samples, thereby optimizing case load processing.

By embracing these advancements, forensic facilities can significantly improve operational efficiency, minimize manual labor, and better support a predominantly female workforce.

These technological innovations offer strategic solutions to counteract the projected shortage of over 30,000 forensic analysts in the United States. This session will provide critical insights, using real world examples and data, into how these technologies enhance the quality of life for forensic staff and set new benchmarks for industry best practices.

Educational Objectives: This session will explore how advanced technologies and intelligent building systems can support staff and transform their forensic environments by optimizing case load processing and reducing physical strain, while ensuring a secure and healthy work environment. Attendees will learn to implement Automated Guided Vehicles (AGVs), automated gurneys, RFID Tracking Systems, and Environmental Controls to enhance security, chain of custody, and indoor air quality. Through a data-driven review of global case studies, participants will see how these technologies improve safety, functionality, and efficiency in forensic facilities. By the end, attendees will have a clear understanding of how these technologies can drive measurable improvements in forensic outcomes today and into the future.

Impact Statement: A new generation of predominantly female forensic scientists is revolutionizing the field, demanding state-of-the-art facilities and systems that support their important work and minimize physical strain. Attendees will learn that by incorporating cutting-edge technology and optimizing case load processing, forensic facilities can not only ensure a healthier and safer working environment by reducing workplace injuries but can directly contribute to significant percentage gains in productivity and case load management. Attendees will leave the presentation with the knowledge needed to catalyze change at their facilities, armed with data proving that labs that embrace innovative technology, automation, and human-centered design are better equipped to meet the challenges created by the global demand for forensic science while mitigating the projected shortage of 30,000 analysts in the United States.

WORKSHOPS

Pre-Registration Required—\$275

W1 Pediatric Fracture Healing in Cases of Suspected Non-Accidental Trauma: Clinical, Radiographic, Anthropological, and Histological Perspectives and New Technologies

Monday, February 17, 2025

8:30 am – 5:00 pm

CE Hours: 6.0

Program Description: Physical abuse in children results in >500 deaths in the United States each year.¹ Patterned and repetitive skeletal fracture is often observed in these decedents, reflecting the typically serial nature of pediatric NAI. Accurate estimation of TSI for antemortem fractures is critical for identification, evaluation, and adjudication of fatal pediatric NAI.

However, TSI estimation has been described as an “inexact science,” due to lack of recognition, understanding, and scientific validation of existing TSI methods.^{2,3} These methods derive from a variety of inter-disciplinary sources with unknown accuracy, reliability, consistency, and limited understanding of variables that impact fracture healing. This has necessitated extreme caution in use of TSI estimations in the adjudication of fatal pediatric NAI.

Multidisciplinary approaches to understanding pediatric fracture healing that focus on scientifically validated methodologies are imperative for developing best practice recommendations and standards for forensic pediatric skeletal trauma analysis in pediatric death investigations.

This workshop provides a multidisciplinary approach for understanding and estimating pediatric fracture TSI. Best practice recommendations for analysis and interpretation of pediatric skeletal fracture and its timing are presented using interdisciplinary technologies involving imaging (Computed Tomography [CT], radiology), microscopy (light microscopy, histology), and machine learning. The scientific foundation for pediatric fracture repair and its timing is considered, as is application of these methods to the broader context of pediatric case adjudication and public health. Hands-on examination of case study examples allows participants to put topics covered into practice with a focus on interdisciplinary collaboration.

Educational Objectives: After attending this workshop, participants will understand how antemortem skeletal fractures can be used to help interpret, document, and adjudicate medicolegal cases of Non-Accidental Injury (NAI) in pediatric deaths. Attendees will learn the anatomical basis for and variables affecting pediatric skeletal fracture, repair, and timing (i.e., Time Since Injury or TSI). Using multidisciplinary technology, including histology, light microscopy, radiology, and machine learning, they will learn to critically evaluate current methodological approaches for evaluating pediatric fracture healing and estimating TSI. Applications of pediatric antemortem fracture data toward public health (including advocacy for children’s health) will be explored.

Impact Statement: This workshop will impact the forensic community by providing multidisciplinary perspectives and methodological training for critically evaluating and interpreting skeletal fracture and its timing in pediatric death investigations. This training will help the forensic community determine best practice approaches to pediatric fracture interpretations that are scientifically based, legally defensible, and applicable to public health efforts toward prevention of non-accidental child injury.

Target Audience: Anthropology, Forensic Nursing Science, General, Jurisprudence, Pathology/Biology

Knowledge Level Required: Intermediate

Chair:

Diana Messer, PhD

West Tennessee Regional Forensic Center
Memphis, TN

Co-Chair:

Donna C. Boyd, PhD

Radford University
Radford, VA

Presenters:

Bradley J. Adams

Office of the Chief Medical Examiner
New York, NY

Andrew Baker, MD

Hennepin County
Medical Examiner’s Office
Minnetonka, MN

Farah W. Brink, MD

Nationwide Children’s Hospital
Columbus, OH

Jered B. Cornelison, PhD

Western Michigan University
Homer Stryker MD School of Medicine
Kalamazoo, MI

Carolyn V. Isaac, PhD

Michigan State University
East Lansing, MI

Andy Tsai, MD, PhD

Boston Children’s Hospital
Harvard Medical School
Boston, MA

WORKSHOPS

W1 Pediatric Fracture Healing in Cases of Suspected Non-Accidental Trauma: Clinical, Radiographic, Anthropological, and Histological Perspectives and New Technologies

Program:

- 8:30 am – 8:45 am **Introduction: Pediatric Fatal Death Investigations, Skeletal Fracture, and Its Timing**
Diana Messer, PhD; Donna Boyd, PhD
- 8:45 am – 9:15 am **Infant Fracture Dating: Leveraging Histology, Radiology, and AI**
Andy Tsai, MD
- 9:15 am – 10:15 am **Gross and Microscopic Evaluation of Pediatric Fractures at Autopsy**
Andrew Baker, MD
- 10:15 am – 10:45 am **BREAK/Individual Case Study Assessment Time**
- 10:45 am – 11:15 am **Light Microscopy of Pediatric Healing Fractures**
Donna Boyd, PhD
- 11:15 am – 12:00 pm **A Histomorphological Approach to Fracture Age Estimation**
Jered Cornelison, PhD; Carolyn Isaac, PhD
- 12:00 pm – 1:30 pm **BREAK/Individual Case Study Assessment Time**
- 1:30 pm – 2:00 pm **Protocol and Best Practices for Documenting and Analyzing Pediatric Healing Fractures at the New York City Office of the Medical Examiner**
Bradley Adams, PhD
- 2:00 pm – 2:30 pm **Assessing the Scientific Validity of TSI Estimation**
Diana Messer, PhD; Donna Boyd, PhD
- 2:30 pm – 3:00 pm **Using Deep Learning to Estimate Time-Since-Injury of Healing Fractures**
Farah Brink, MD; Diana Messer, PhD
- 3:00 pm – 3:30 pm **BREAK/Individual Case Study Assessment Time**
- 3:30 pm – 4:00 pm **Clinical Approach to Fracture Healing in Cases of Suspected Child Physical Abuse**
Farah Brink, MD
- 4:00 pm – 4:30 pm **Pediatric Skeletal Trauma Analysis in Broader Legal and Public Health Context: Adjudicating and Preventing Child Deaths**
Donna Boyd, PhD, Diana Messer, PhD
- 4:30 pm – 5:00 pm **Interactive Case Study Discussion and Wrap-Up**
Donna Boyd, PhD; Diana Messer, PhD

WORKSHOPS

Pre-Registration Required—\$275

W2 **Implementing Recommendations From the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation Report**

Tuesday, February 18, 2025

8:30 am – 5:00 pm

CE Hours: 6.5

Program Description: In May 2024, the NIST/NIJ EWG on Human Factors in Forensic DNA Interpretation published a comprehensive report containing 44 recommendations for how to reduce the likelihood and consequence of errors in forensic DNA interpretation.

In this workshop, we will guide participants through the EWG's process, highlight key findings, discuss controversial topics, and present the final recommendations. The workshop will focus on the following areas:

- Training and Education
- Quality Assurance
- Cognitive Bias and Error Reduction
- Interpretation
- Reporting and Testimony
- Management
- Work Environment
- Expressing Evidence Strength
- Research
- Technology
- The “How” and “When” Questions in DNA Analysis

This workshop is relevant to DNA and other forensic science practitioners, laboratory management, researchers, legal practitioners, and anyone interested in improving decision-making in forensic science. Participants will be expected to actively engage with the material and provide feedback on the relevance and feasibility of implementing the recommendations in their practice.

We will use an interactive approach to help participants develop a plan to implement any recommendations that will provide value in their practice. Join us for a comprehensive session that aims to enhance your understanding and application of human factors in forensic DNA interpretation, ultimately contributing to better practices and safer justice outcomes.

Educational Objectives: In this workshop, we will guide participants through the process undertaken by the National Institute of Standards and Technology (NIST)/National Institute of Justice (NIJ) Expert Working Group (EWG) on Human Factors in Forensic DNA Interpretation. We will highlight the key findings and controversial topics and present the final recommendations from the report published in May 2024. This workshop will focus on providing examples of how forensic science service providers are already implementing these recommendations in their practice.

Upon completion of this workshop, participants will: 1) be familiar with the published recommendations from the NIST/NIJ EWG on Human Factors in Forensic DNA Interpretation report, 2) understand the implications of these recommendations for their practice, 3) Recognize how these recommendations aim to improve DNA examination practices, 4) Critique the recommendations and discuss their relevance and feasibility in participants' own practices and the wider forensic DNA community, and 5) Have the tools to implement the recommendations in their own practice.

Impact Statement: The study of human factors in forensic science is crucial to understanding the interaction between humans and the systems they use. By addressing human factor issues, we can identify and mitigate the likelihood and consequence of errors and biases, improve laboratory culture, staff morale, and productivity. This workshop encapsulates four years of effort dedicated to understanding human factors in forensic DNA interpretation, providing valuable guidance for DNA analysts, laboratory management, and legal practitioners to enhance practice and achieve safer justice outcomes.

Target Audience: General, Jurisprudence, Pathology/Biology

Knowledge Level Required: Basic

WORKSHOPS

W2 Implementing Recommendations From the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation Report

Chair:

Angela Spessard, MSFS
Maryland State Police
Pikesville, MD

Presenters:

Michelle Madrid, MS
Los Angeles County Sheriff's Department
Los Angeles, CA

Melissa Taylor, BA

National Institute of Standards
and Technology
Gaithersburg, MD

Co-Chair:

Jarrah R. Kennedy, MSFS
Kansas City Police Crime Laboratory
Kansas City, MO

Niki Osborne, PhD

Human Factors Training and Consultancy
Remuera, New Zealand

Hope Zagaria, MSFS

Bureau of Justice Assistance
Washington, DC

Program:

- 8:30 am – 9:00 am **Participant and Facilitator Introductions**
Melissa Taylor, BA
- 9:00 am – 10:30 am **Introduction to the NIST/NIJ Expert Working Group Series**
Melissa Taylor, BA
Introduction to Key Concepts Used Throughout the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation Report
Niki Osborne, PhD
Interpretation and Technology
Michelle Madrid, MS
- 10:30 am – 10:45 am **BREAK**
- 10:45 am – 12:00 pm **Quantitative and Qualitative Expressions of DNA Results**
Hope Zagaria, MSFS
Reporting and Testimony
Jarrah Kennedy, MSFS; Michelle Madrid, MS
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 3:00 pm **Reporting and Testimony Continued**
Jarrah Kennedy, MSFS; Michelle Madrid, MS
Interpretation of DNA Results Considering Alleged Activities
Jarrah Kennedy, MSFS; Niki Osborne, PhD
- 3:00 pm – 3:15 pm **BREAK**
- 3:15 pm – 5:00 pm **Education, Training, and Professional Credentialing**
Angie Spessard, MSFS
Management & QA/QC
Niki Osborne, PhD; Angie Spessard, MSFS
Final Thoughts
All Presenters

WORKSHOPS

Pre-Registration Required—\$275

W3 A Military Criminal Investigative Organization and the Boon and Bane of Technology

Monday, February 17, 2025

8:30 am – 5:30 pm

CE Hours: 6.75

Program Description: The attendees will be provided with an understanding of military-specific investigations, how we utilize technology to assist us in solving our investigations, as well as the problems technology has presented over the past ten years. There will be multiple case studies of deaths, child sexual abuse material, and other felony level crimes demonstrating the benefits and risks associated with our reliance on technology. There will be information pertaining to our newly established Cold Case Unit, which has assisted in numerous cold cases and has current cold cases they are investigating. There will also be a capabilities brief of what we as an MCIO can assist outside agencies with.

Educational Objectives: The attendees will learn how a Military Criminal Investigative Organization (MCIO) has applied technology to the investigative process and what has assisted them, as well as how it has hindered the investigative process. There will be discussions concerning death investigations, cold case investigations, and military resources to our partner agencies, challenges of Closed Circuit Television, and challenges during armed conflicts.

Impact Statement: This presentation will impact the forensic science community by providing examples of best practices with inter-agency partnerships, differing ways technology can be used to solve investigations, being a resource to assist with cold cases that may have a Department of Defense nexus, and how technology can be used in austere environments to solve investigations.

Target Audience: Digital & Multimedia Sciences, General, Jurisprudence

Knowledge Level Required: Basic

Workshop Chair:

Vanessa R. Neff, MFS
Department of the Army
Criminal Investigation Division
Woodbridge, VA

Tim Bartman, BAS
Department of the Army
Criminal Investigation Division
Fort Moore, GA

Pedro Hernandez, Jr., MFS
Department of the Army
Criminal Investigation Division
El Paso, TX

Co-Chair:

Matt Geniuk, MSc
Department of the Army
Criminal Investigation Division
Fort Sam Houston, TX

Ethan Dodson, MSFS
Central Texas Field Office
Department of the Army
Criminal Investigation Division
Fort Cavazos, TX

Dale Sajdak, MSFS
Department of the Army
Criminal Investigation Division
Stedman, NC

Presenters:

Chris Adams, MFS
Department of the Army
Criminal Investigation Division
Quantico, VA

Michael Allen Easter, Jr., MSFS
Department of the Army
Criminal Investigation Division
Fredericksburg, VA

Jessica A. Veltri, MS
Department of the Army
Criminal Investigation Division
Stafford, VA

Bryce Wolford, MA
Department of the Army
Criminal Investigation Division
Quantico, VA

WORKSHOPS

W3 **A Military Criminal Investigative Organization and the Boon and Bane of Technology**

Program:

- 8:30 am – 8:45 am **Introduction**
Matt Geniuk, MS
- 8:45 am – 10:15 am **Military Resources for Cold Case Investigations**
Jessica A. Veltri, MS; Chris Adams, MFS
- 10:15 am – 11:00 am **Bridging The Gap: Law Enforcement and the Digital Divide**
Pedro Hernandez, Jr., MFS
- 11:00 am – 11:15 am **BREAK**
- 11:15 am – 12:00 pm **Dowsing Rods: Bane or Boone?**
Michael Allen Easter, Jr., MSFS
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 1:45 pm **Benefits of Facial Recognition in CSAM Investigations**
Bryce Wolford, MA
- 1:45 pm – 2:30 pm **Overreliance on Technology and the Pitfalls**
Dale Sajdak, MSFS
- 2:30 pm – 3:15 pm **Challenges of Excavating Human Remains in a Combat Zone**
Ethan Dodson, MSFS
- 3:15 pm – 3:30 pm **BREAK**
- 3:30 pm – 4:15 pm **CCTV and the Challenges it Brings**
Tim Bartman, BAS
- 4:15 pm – 5:00 pm **Limits of Technology in a Missing Soldier Investigation**
Vanessa R. Neff, MFS
- 5:00 pm – 5:30 pm **Final Wrap-Up and Questions**
Matt Geniuk, MS

WORKSHOPS

Pre-Registration Required—\$275

W4 Forensic Science Adaptation to Artificial Intelligence

Monday, February 17, 2025

8:30 am – 4:35 pm

CE Hours: 6.25

Program Description: This workshop was developed by the Forensic Science Foundation (FSF) Educational Committee. The workshop will explore the transformative potential of Artificial Intelligence (AI) in forensic science. It will delve into the basics of AI analyses, discuss strategies for implementing AI-enabled tools in pattern evidence, and present innovative biometrics solutions for digital forensics. The workshop will also evaluate novel approaches to media authentication in the age of AI-generated content, apply AI in fire debris analysis and forensic DNA analysis, and discuss the use of generative AI for rapid detection of novel drugs in toxicology samples. Last, it will provide a historical perspective on the development of AI and discuss its challenges in forensic science. Attendees will gain insights into the state of AI in forensic science, learn about current tools, and understand the considerations in the development and evaluation of AI-based techniques in the field.

Educational Objectives: The proposed presentations are poised to significantly impact the forensic science community by integrating AI into various aspects of forensic analysis. They aim to enhance understanding of AI principles, propose strategies for implementing AI-enabled tools in pattern evidence analysis, and explore innovative biometrics solutions. They also seek to evaluate novel approaches to media authentication in the face of AI-generated content, apply AI in fire debris analysis and forensic DNA analysis, and use generative AI for rapid detection of novel drugs in toxicology samples. Last, they provide a historical perspective on the development of AI and discuss its challenges in forensic science. Collectively, these presentations could lead to more accurate, efficient, and objective forensic analyses, ultimately contributing to a more effective criminal justice system.

Impact Statement: This presentation will impact the forensic science community by providing examples of best practices with inter-agency partnerships, differing ways technology can be used to solve investigations, be a resource to assist with cold cases that may have a Department of Defense nexus, and how technology can be used in austere environments to solve investigations.

Target Audience: All Sections

Knowledge Level Required: Basic

Chair:

Gina Londino-Smolar, EdD
IU Indianapolis
Indianapolis, IN

Brandon Epstein, MS
Medex Forensics
Madison, WI

Aaron M. Shaprio, PhD
Provincial Health Services
Authority of British Columbia
Vancouver, BC, Canada

Co-Chair:

JCU Downs, MD
forensX, LLC
Johns Island, SC

Ting-Yu Huang, PhD
Taipei City, Taiwan

Michael A. Marciano, PhD
Syracuse University
Syracuse, NY

Henry Swofford, PhD
National Institute of Standards
and Technology
Gaithersburg, MD

Presenters:

Carole E. Chaski, PhD
Institute for Linguistic Evidence
Georgetown, DE

David Pienkowski, MBA, PhD
University of Kentucky
Lexington, KY

Jorn Yu, PhD
Sam Houston State University
Huntsville, TX

Kathryn C. Seigfried-Spellar, PhD
Purdue University
West Lafayette, IN

WORKSHOPS

W4 Forensic Science Adaptation to Artificial Intelligence

Program:

- 8:30 am – 8:35 am **Welcome**
Gina Londino-Smolar, EdD
- 8:35 am – 8:50 am **Introduction**
David Pienkowski, MBA, PhD
- 8:50 am – 9:35 am **The Impact of Artificial Intelligence on Forensic DNA Analysis**
Michael A. Marciano, PhD
- 9:35 am – 10:20 am **A New Horizon in Digital Forensics Through Knuckle and Fingernail Bed Biometrics**
Kathryn C. Seigfried-Spellar, PhD
- 10:20 am – 10:30 am **BREAK**
- 10:30 am – 11:15 am **Evaluating Novel Approaches to Media Authentication in the Age of AI-Generated Content**
Brandon Epstein, MS
- 11:15 am – 12:00 pm **Transfer Learning of Data Classification for Fire Debris Analysis**
Jorn Yu, PhD; Ting-Yu Huang, PhD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 1:45 pm **Navigating Implementation of AI-Enabled Tools in Pattern Evidence**
Henry Swofford, PhD
- 1:45 pm – 2:30 pm **The Search for the Unknown: Using Generative AI to Detect Novel Drugs in Toxicology Samples**
Aaron M. Shaprio, PhD
- 2:30 pm – 2:45 pm **BREAK**
- 2:45 pm – 3:30 pm **Forensic Computational Linguistics: History, Examples, and Challenges of Artificial Intelligence in Forensic Science**
Carole E. Chaski, PhD
- 3:30 pm – 4:30 pm **Questions and Answers Panel Session**
All Presenters
- 4:30 pm – 4:35 pm **Closing Remarks**
Gina Londino-Smolar, EdD

Proceeds from this workshop will benefit the Forensic Sciences Foundation



WORKSHOPS

Pre-Registration Required—\$275

W5 The Sherry Black Investigation—A Journey for Justice

Monday, February 17, 2025

8:30 am – 4:00 pm

CE Hours: 5.5

Program Description: This program will take the attendees through the high-profile, 10-year investigation of the murder of Sherry Black. She was murdered in her small bookstore located on her property in South Salt Lake City, UT, on November 30, 2010. The program will start with the initial call to the South Salt Lake City Police Department and the processing of the crime scene by the Utah Bureau of Forensic Services Laboratory System. The evidence recovered at the scene and the impact the evidence had on the investigation will be discussed. The presentation will show the initial forensic testing and the results of the analysis. The Behavioral Analysis conducted on both the crime and offender will be reviewed with the attendees, and the evidence-based conclusions will be explained. Investigative Genetic Genealogy has become a critical tool in identifying unknown remains and unknown offenders in many violent crimes. We will discuss how this was used during the investigation, and how the offender was eventually identified. The attendees will learn the proper way to obtain reference samples to ensure that any results will not be questioned. This presentation will describe the prosecutorial process from the time of the offender’s arrest through his sentencing. We will discuss considerations when prosecuting cold case homicides. Finally, the attendees will learn the steps that were taken to pass Utah SB156, also known as the “Sherry Black Bill.” This legislative act introduces a more structured framework for law enforcement’s utilization of optional genetic testing databases when investigating violent crimes.

Educational Objectives: After attending this presentation, attendees will gain a working knowledge of the process of violent crime investigation. Attendees will recognize: (1) the initial crime scene and evidence collection; (2) forensic analysis of the evidence; (3) crime scene assessment and behavior analysis; (4) Investigative Genetic Genealogy; (5) prosecutorial considerations and the impact on families.

Impact Statement: This presentation will impact the forensic science community by exploring a violent homicide from the initial investigation through the ten years of investigation, culminating in the identification and conviction of the offender. During this investigation, many forensics sciences disciplines were involved; this presentation discusses these practices and their application to homicide investigation.

Target Audience: General, Jurisprudence, Psychiatry & Behavioral Science

Knowledge Level Required: Basic

Chair:

Katherine M. Brown, PhD
Tarleton State University
College Station, TX

Co-Chair:

Kelsie Bryand, MS
Sam Houston State University
Huntsville, TX

Presenters:

Heidi Miller
Founder
Sherry Black Foundation
Sandy, UT

Erin BE Ryan, BS
Director
Sherry Black Foundation
Midway, UT

Patrick J. Zirpoli
Sr. Investigative Consultant
Sherry Black Foundation
Milanville, PA

WORKSHOPS

W5 The Sherry Black Investigation—A Journey for Justice

Program:

- 8:30 am – 8:45 am **Introduction**
Heidi Miller
- 8:45 am – 10:00 am **The Initial Investigation**
Patrick J. Zirpoli
- 10:00 am – 10:15 am **BREAK**
- 10:15 am – 11:00 am **Assessing Criminal Behavior: An Introduction**
Patrick J. Zirpoli
- 11:00 am – 12:00 pm **Criminal Behavior Assessment of the Sherry Black Murder**
Patrick J. Zirpoli
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 2:15 pm **Utilizing Investigative Genetic Genealogy**
Patrick J. Zirpoli
- 2:15 pm – 2:45 pm **Prosecutorial Considerations and Impacts on Families**
Patrick J. Zirpoli; Erin BE Ryan, BS; Heidi Miller
- 2:45 pm – 3:00 pm **BREAK**
- 3:00 pm – 3:45 pm **Utah SB156 “Sherry Black Bill”**
Erin BE Ryan, BS
- 3:45 pm – 4:00 pm **Closing Remarks**
Heidi Miller

WORKSHOPS

Pre-Registration Required—\$275

W6 NIST/MSP Hypergeometric Sampling Software for Seized-Drug Analysis

Monday, February 17, 2025

8:00 am – 5:00 pm

CE Hours: 6.75

Program Description: This full-day workshop will present a new statistical sampling app developed by the National Institute of Standards and Technology (NIST) and the MSP to apply hypergeometric sampling to seized-drug evidence. The theory behind the calculations in the app will be thoroughly discussed, along with tools and techniques for both conceptualizing and deploying statistical sampling plans in seized-drug laboratories. Topics covered will include sample size selection, uncertainty quantification, generation of appropriate population inferences for net weight and identification purposes, and appropriate reporting language for net weight, unit count, and extrapolation scenarios.

Educational Objectives: After attending this workshop, the attendees will understand how different hypergeometric sampling tools can be used in a forensic laboratory to improve the information provided about the population of drugs submitted.

Impact Statement: This workshop will impact the forensic science community by providing an alternative to the sampling tools currently available on the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) website. The presenters will highlight the reasons why Maryland State Police (MSP) decided to provide statistical data for evidence submitted with a possession with intent to distribute charge. One of the current challenges of statistical sampling of seized-drug evidence is that the complex mixtures of street samples do not always have the same controlled substances reported for each specimen tested. This sampling app will allow a statistical statement to be more easily made in more situations than the hypothesis testing approach.

Target Audience: Criminalistics

Knowledge Level Required: Basic

Chair:

Sandra E. Rodriguez-Cruz, PhD
Drug Enforcement Administration
Dulles, VA

William Guthrie, MS

National Institute of Standards and Technology
Gaithersburg, MD

Co-Chair:

Catherine Savage, MS
Maryland State Police
Forensic Sciences Division
Pikesville, MD

Jack Prothero, PhD

National Institute of Standards and Technology
Westminster, CO

Presenters:

Laurel Bobka, MSFS
Maryland State Police
Walkersville, MD

Joshua Smith, BS

Charles County Sheriff's Office
Windsor Mill, MD

WORKSHOPS

W6 NIST/MSP Hypergeometric Sampling Software for Seized-Drug Analysis

Program:

- 8:00 am – 10:00 am **Welcome and Presentation of the Hypergeometric Sampling App for Seized-Drug Analysis**
Jack Prothero, PhD; Laurel Bobka, MSFS
- 10:00 am – 11:00 am **Histories and Components of Sampling Plans**
Sandra E. Rodriguez-Cruz, PhD; Laurel Bobka, MSFS
- 11:00 am – 12:00 pm **Mathematics Underlying Hypergeometric Sampling and Tool Demos**
Jack Prothero, PhD; Sandra E. Rodriguez-Cruz, PhD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 4:00 pm **Hands-On Exercises: Comparison of Hypergeometric Sampling App to SWGDRUG SD6 and ENFSI Calculators**
Joshua Smith, BS; Catherine Savage, MS
- 4:00 pm – 4:30 pm **Discussion of Estimated Net Weight and Tablet Count Estimations, Including Estimation of Uncertainty of Measurement for Weight Measurements**
Joshua Smith, BS
- 4:30 pm – 5:00 pm **FAQs: “What Do I Say if a Lawyer Asks X?”**
All Presenters

WORKSHOPS

Pre-Registration Required—\$275

W7 **DSM Demystified: Medical Disorders in the Courtroom**

Monday, February 17, 2025

8:30 am – 6:00 pm

CE Hours: 7.5

Program Description: This presentation is designed to equip legal professionals with the knowledge to confidently discuss the mental health in court proceedings, explore alternative diagnostic options, and understand the crucial distinctions between legal and medical definitions of disorders. Participants will delve into real case examples to see theory in action and gain practical insights into challenging opposing experts and selecting the right expert witnesses.

Interactive elements will include engaging group discussions and role-playing scenarios to enhance learning and retention. Role-playing in this session will involve analyzing various case scenarios from jurisdictions with different legal standards and tests. Participants will engage in mini mock trials with forensic evaluations where they will apply their understanding of the *DSM's* authority, forensic limitations, and the distinction between legal and medical definitions of disorders. By attending this session, you will not only enhance your ability to navigate forensic evaluations but also ensure ethical and accurate representations of mental health in legal contexts. Join us to transform your courtroom strategies and become a more effective advocate for your clients.

Educational Objectives: The goals of this workshop are to:

- Understand and articulate the role of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* in legal settings.
- Analyze the limitations and challenges of relying on the *DSM* for legal determinations of mental health issues.
- Identify and compare alternative diagnostic manuals and systems used in mental health assessments.
- Differentiate between legal versus medical definitions of mental disorders in the assessment and testimony of mental health conditions.
- Acquire knowledge to effectively challenge the testimony and findings of opposing experts in court.
- Learn to identify potential weaknesses or biases in expert evaluations and testimonies.
- Evaluate the credentials, experience, and methodology of potential expert witnesses.
- Review landmark cases that have significantly influenced mental health law and discuss their impact on current legal standards and practices.

Impact Statement: By achieving these learning objectives, participants will gain a comprehensive understanding of the interplay between mental health and legal systems, particularly the role and authority of the *DSM* in court. They will be equipped with the knowledge to critically evaluate and challenge forensic limitations, alternative diagnostic options, and the legal versus medical definitions of disorders. Through case examples and practical strategies, attendees will enhance their ability to select and prepare expert witnesses, ensuring robust and credible testimonies. This training will empower legal professionals to effectively navigate the complexities of forensic mental health evaluations, ultimately improving the quality and fairness of judicial outcomes.

Target Audience: Jurisprudence, Psychiatry & Behavioral Science

Knowledge Level Required: Basic

Chair:

Corina Freitas, MD

Freitas and Associates LLC

Alexandria, VA

Co-Chair:

Donna Coleman, JD

Office of the Public Defender

Mental Health Division

Towson, MD

WORKSHOPS

W7 **DSM Demystified: Medical Disorders in the Courtroom**

Program:

- 8:30 am – 8:35 am **Welcome and Introductions**
Corina Freitas, MD
- 8:35 am – 9:00 am **Overview of Different Mental Health Experts and Their Differences**
Corina Freitas, MD
- 9:00 am – 9:15 pm **Forensic Mental Health Professional Ethics Guidelines**
Corina Freitas, MD
- 9:15 am – 10:00 am **History of Classification of Mental Illness, the DSM With Its Forensic Application Caution and Beyond**
Corina Freitas, MD
- 10:00 am – 10:15 am **BREAK**
- 10:15 am – 11:00 am **What is a Mental Disorder in Forensic Mental Health?—Where Medicine Meets the Law**
Corina Freitas, MD; Donna Coleman, JD
- 11:00 am – 12:00 pm **Review of Mental Health Landmark Cases and Legal Standards**
Donna Coleman, JD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 3:00 pm **Mini Mock Trial on Sanity**
Donna Coleman, JD
- 3:00 pm – 5:00 pm **Mini Mock Trial on Competence**
Donna Coleman, JD
- 5:00 pm – 6:00 pm **Q&A and Mini Mock Trial Debrief**
Corina Freitas, MD; Donna Coleman, JD

WORKSHOPS

Pre-Registration Required—\$275

W8 Forensic Postmortem Radiology and Medicolegal Death Investigations

Monday, February 17, 2025

8:30 pm – 4:45 pm

CE Hours: 5.75

Program Description: Forensic postmortem radiology is an essential element of a comprehensive medicolegal death investigation. State-of-the-art techniques and procedures will be discussed through case presentations and interactive interpretations of radiology images.

Educational Objectives: After attending this workshop, attendees will: (1) appreciate the evolution of forensic imaging; (2) develop an understanding the fundamentals of Postmortem Computed Tomography (PMCT), including interpretation; (3) gain insights regarding the applications of Postmortem Computed Tomography (PMCT), with a particular focus on its role during the opioid epidemic; (4) identify unique considerations for pediatric forensic imaging, and (5) discuss current advances, collaboration, and potential resources available to interested practitioners.

Impact Statement: This presentation will impact the forensic science community by providing attendees with expertise on best practices, interpretation of radiology imaging, and incorporation of forensic postmortem radiology into medicolegal death investigations.

Target Audience: Anthropology, Forensic Nursing Science, General, Jurisprudence, Odontology, Pathology/Biology

Knowledge Level: Basic

Chair:

Summer J. Decker, PhD
University of Southern California
Keck School of Medicine
Los Angeles, CA

Co-Chair:

Edward Mazuchowski, MD, PhD
HNL Lab Medicine
Breiningsville, PA

Presenters:

Natalie L. Adolphi, PhD
University of New Mexico
Albuquerque, NM

Fabrice Dedouit, MD, PhD
Rangueil-Larrey Toulouse Hospital
Toulouse, France

Jamie M. Elifritz, MD
Forensic Radiology Group
Albuquerque, NM

Howard T. Harcke, MD
Thomas Jefferson University
Wilmington, DE

Heather S. Jarrell, MD
Office of the Medical Investigator
Albuquerque, NM

Michael J. Thali
University of Zurich
Zurich, Switzerland

Program:

8:30 am – 8:45 am	Introductions and Overview and Historical Perspective <i>Edward L. Mazuchowski, MD, PhD; Summer J. Decker, PhD</i>
8:45 am – 9:15 am	Natural Disease, Postmortem Changes, and Artifacts <i>Jamie Elifritz, MD</i>
9:15 am – 9:45 am	Traumatic Injuries <i>Edward L. Mazuchowski, MD, PhD</i>
9:45 am – 10:15 am	Incorporating Forensic Imaging Into to Day-to-Day Practice in a Medical Examiner Office During the Opioid Crisis <i>Heather Jarrell, MD</i>
10:15 am – 10:30 am	BREAK

WORKSHOPS

W8 Forensic Postmortem Radiology and Medicolegal Death Investigations

Program cont.

- 10:30 am – 11:00 am **Cardiac Imaging and Postmortem Angiography**
Fabrice Dedouit, MD, PhD
- 11:00 am – 11:30 am **Pediatric Forensic Radiology**
Howard T. Harcke, MD
- 11:30 am – 12:00 pm **Current State of Forensic Radiology in Medicolegal Jurisdictions**
Natalie Adophi, MS, PhD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 1:30 pm **Postmortem Imaging: International Perspective**
Michael Thali, MD
- 1:30 pm – 2:00 pm **Visualization and Court Presentation**
Summer Decker, PhD
- 2:00 pm – 2:30 pm **Emerging Technologies in Forensic Imaging**
Summer Decker, PhD
- 2:30 pm – 2:45 pm **BREAK**
- 2:45 pm – 4:15 pm **Interactive Cases**
All Presenters
- 4:15 pm – 4:45 pm **Panel Discussion With Audience Participation**
All Presenters

WORKSHOPS

Pre-Registration Required—\$275

W9 Statistical Thinking for Forensic Science: From Probability to Black Box Studies to Likelihood Ratios

Monday, February 17, 2025

8:30 am – 4:30 pm

CE Hours: 5.75

Program Description: This workshop provides an introduction to key concepts in probability and statistics by linking them to key topics that are currently impacting the forensic science community. The target audience is anyone (e.g., practitioners, lawyers, judges, educators, and stakeholders) with a desire to better understand ongoing conversations about validation studies, error rates, inconclusive findings, likelihood ratios, and general concepts in statistics and probability.

Educational Objectives: The workshop is intended to review basic concepts from probability and statistical inference and demonstrate their relevance in the current discussions regarding the assessment and interpretation of impression, pattern, and trace evidence. Participants will:

- Become familiar with the language and key concepts of probability, including the role of populations and sample, laws of probability, dependence/independence of events, conditional probability and Bayes' rule, and the likelihood ratio.
- Become familiar with the language and key concepts of statistical inference, including the role of data collection, measurement, error rates, reliability, and validity.
- Understand issues associated with the design, execution, and interpretation of black box studies.
- Understand statistical hypothesis testing and its relevance for the two-stage approach for analyzing forensic evidence.
- Understand the likelihood ratio/Bayes factor-approach to assessing forensic evidence along with its strengths and weaknesses.

Impact Statement: Understanding the applications of statistics by the forensic science community will assist practitioners, attorneys, and jurists in evaluating evidence and opinions. The workshop is intended to leave participants in a position to better understand and engage in ongoing discussions (in the Organization of Scientific Area Committees [OSAC] and other places) about appropriate approaches to assessing forensic evidence and reporting forensic conclusions.

Target Audience: All Sections

Knowledge Level Required: Basic

Chair:
Michael J. Salyards, PhD
CSAFE
Tucson, AZ

Co-Chair:
Linton Mohammed, PhD
Forensic Science Consultants, Inc.
Poway, CA

Presenter:
Hal S. Stern, PhD
University of California, Irvine
Irvine, CA

Program:

8:30 am – 10:00 am	Introduction and Probability Concepts <i>Michael J. Salyards, PhD; Hal S. Stern, PhD</i>
10:00 am – 10:30 am	BREAK
10:30 am – 12:00 pm	Forensic Science Results, Opinions, and Interpretations/Statistical Methods and the Two-Stage Approach to Forensic Inference <i>Michael J. Salyards, PhD; Hal S. Stern, PhD</i>
12:00 pm – 1:00 pm	BREAK
1:00 pm – 2:30 pm	Validation Studies <i>Michael J. Salyards, PhD; Hal S. Stern, PhD</i>
2:30 pm – 3:00 pm	BREAK
3:00 pm – 4:30 pm	The Likelihood Ratio in Forensic Science <i>Michael J. Salyards, PhD; Hal S. Stern, PhD</i>

WORKSHOPS

Pre-Registration Required—\$150

W10 Alcohol Calculations and Expert Testimony: How ANSI/ASB BPR 122 and 037 Can Be Applied in Forensic Toxicology Cases

Monday, February 17, 2025

8:30 am – 12:00 pm

CE Hours: 3.0

Program Description: Forensic toxicologists are frequently asked to perform calculations related to alcohol in a wide variety of situations. ANSI/ASB BPR 122 Best Practice Recommendation for Performing Alcohol Calculations in Forensic Toxicology, First Edition, 2024, outlines a scientific approach to improve the quality and consistency of this type of work. Those calculations can then serve as the basis for expert opinion in matters related to motor vehicle investigations, drug-facilitated crimes, workplace injury inquiries, and other criminal and civil cases. Performing the calculations in a standardized manner can also assist experts in meeting the recommendations of ANSI/ASB BPR 037 Guidelines for Opinions and Testimony in Forensic Toxicology, First Edition, 2019.

This workshop will review the alcohol calculation best practices and expert opinion guidelines, then demonstrate how the calculations can be applied to a variety of real-world case scenarios. Experts will also share how those calculations are then presented in court as part of their expert opinion testimony.

Educational Objectives: Attendees will be able to use the alcohol calculation guidelines in a wide variety of forensic case types. They will learn how different toxicologists apply those calculations to expert opinion testimony.

Impact Statement: This workshop will impact the forensic toxicology and criminal justice community by educating stakeholders in how the principles of American National Standards Institute/Academy Standards Board Best Practice Recommendation (ANSI/ASB BPR) 122 and ANSI/ASB BPR 037 can be applied to a variety of forensic case types involving alcohol calculations.

Target Audience: Jurisprudence, Toxicology

Knowledge Level Required: Intermediate

Chair:

Jennifer F. Limoges, MS
New York State Police
Forensic Investigation Center
Albany, NY

Co-Chair:

Laura Liddicoat, BA
Liddicoat Consulting
Fitchburg, WI

Presenters:

Patrick M. Harding, BS
Robert F. Borkenstein Courses
Madison, WI

Chris Heartsill, BSc
SOFT/NHTSA
Farmers Branch, TX

Marc A. LeBeau, PhD

LeBeau Forensic Toxicology Consulting, LLC
Fairfax, VA

Karen Wittman, JD

ABA Judicial Outreach Liaison
Municipal Court
Kansas City, KS

WORKSHOPS

W10 Alcohol Calculations and Expert Testimony: How ANSI/ASB BPR 122 and 037 Can Be Applied in Forensic Toxicology Cases

Program:

- 8:30 am – 8:35 am **Opening and Introductions**
Jennifer F. Limoges, MS; Laura Liddicoat, BA
- 8:35 am – 8:50 am **BAC Calculations in the Courtroom**
Karen Wittman, JD
- 8:50 am – 9:20 am **ANSI/ASB BPR 122 and BPR 037 Overview**
Jennifer F. Limoges, MS
- 9:20 am – 9:40 am **Case 1: Dram Shop**
Patrick M. Harding, BS
- 9:40 am – 10:00 am **Case 2: Workplace Injury**
Chris Heartsill, BSc
- 10:00 am – 10:30 am **BREAK**
- 10:30 am – 10:50 am **Case 3: FMVA**
Jennifer F. Limoges, MS
- 10:50 am – 11:10 am **Case 4: DFC**
Marc A. LeBeau, PhD
- 11:10 am – 11:30 am **Case 5: Hospital Serum Civil Case**
Laura Liddicoat, BA
- 11:30 am – 12:00 pm **Panel Discussion**
All Presenters

WORKSHOPS

Pre-Registration Required—\$150

W11 Sequencing 101

Monday, February 17, 2025

8:30 am – 12:00 pm

CE Hours: 3.5

Learning Overview: What is a library? If it is whole genome sequencing, why don't I get the whole genome? This workshop is designed to be a crash course in all things sequencing. Existing commercial and custom panels for autosomal Short Tandem Repeat (STR), X-STR, Y-STR, mitochondrial, and Single Nucleotide Polymorphism (SNP) testing will be discussed. Additionally, the differences between targeted sequencing, shotgun sequencing, amplicon versus ligation-based libraries, and additional sequencing methods will be compared. Whether or not bioinformatics is required based on the sequencing method will be explored as well as the types of bioinformatic processes that may be employed, including imputation. With any new technology comes the introduction of this procedure in the courtroom as well as the inevitable court challenges. Successfully presented expert witness testimony will be previewed as well as a look at ongoing court challenges. Finally, cases where sequencing has been utilized will be highlighted. The presenters of this workshop will span industry experts, a bioinformatician, and active casework users of sequencing technologies.

Educational Objectives: The goal of this workshop is for attendees to walk away with a better baseline knowledge of sequencing and to provide a foundation for informed decision-making for those considering deploying sequencing in their laboratory.

Impact Statement: Sequencing can be intimidating for those that are used to the existing DNA technologies that have been available over the past several decades. This workshop will broaden that knowledge.

Target Audience: Criminalistics, Digital & Multimedia Sciences, General, Jurisprudence, Pathology/Biology

Knowledge Level: Basic

Chair:

Rachel H. Oefelein, MSc
DNA Labs international
Deerfield Beach, FL

Presenters:

Laurence Devesse, PhD
Qiagen
Zurich, Switzerland

Kevin Lord

DNA Labs international
Deerfield Beach, FL

Co-Chair:

Marybeth Sciarretta, MS
DNA Labs international
Deerfield Beach, FL

Danny Hellwig, MS

DNA Labs international
Deerfield Beach, FL

Mandi S. Van Buren, MS

DNA Labs International
Deerfield Beach, FL

Program:

8:30 am – 8:45 am	Welcome/Introductions <i>Rachel H. Oefelein, MSc</i>
8:45 am – 9:15 am	What is Sequencing? <i>Laurence Devesse, PhD</i>
9:15 am – 9:45 am	Sequencing for STRs, mtDNA, and More <i>Marybeth Sciarretta, MS</i>
9:45 am – 10:15 am	Sequencing for FIGG <i>Patrick M. Harding, BS</i>
10:15 am – 10:30 am	BREAK
10:30 am – 11:00 am	Sequencing in the Courtroom <i>Mandi S. Van Buren, MS</i>
11:00 am – 11:30 am	Bioinformatics <i>Kevin Lord</i>
11:30 am – 12:00 pm	Casework Successes <i>Rachel H. Oefelein, MSc</i>

WORKSHOPS

Pre-Registration Required—\$150

W12 Can Human Remains Detection Canine Teams Detect Residual Odor? Results of Odor Recognition Tests and Chemical Analysis

Monday, February 17, 2025

1:00 pm – 4:30 pm

CE Hours: 3.5

Program Description: Dogs have keen olfactory senses and are deployed for a number of forensic purposes in criminal investigations. HRD canines (a.k.a. cadaver dogs) are trained to detect the odor of human remains, which is comprised of Volatile Organic Compounds (VOCs) that emanate from a deceased body. Despite their widespread use, the reliability of HRD canines is complicated and understudied.

Here, residual odor refers to the odor from a deceased human that remains after it is removed from its resting place, including transient places or objects a body touched. Little is known about deceased residual odor except that its VOCs degrade over time. However, canine alerts are being treated as scientifically valid indicators that an intact decedent was present at one time, even when no physical or corroborating (e.g., chemical) evidence exists, and without regard for the level of training, certification, or proficiency of the canine.

A study of 35 HRD canine teams (handler and dog) tested on residual odor from both deceased and living individuals provides the data and results presented in this workshop. The presenters will describe the development of a standardized, double-blind ORT for canine teams and discuss the accuracy of the canine teams in detecting deceased human residual odor. The presenters will explain the chemical characterization of the VOCs from the odor samples used in the ORTs. Finally, the presenters will utilize select video and audio recordings of the canine team participants from the ORT to contextualize the results and discuss implications of the study.

Educational Objectives: Residual odor is an odor that persists after the target is removed. This workshop addresses canine detection of residual odor of humans, both deceased and alive. After attending this workshop, attendees will understand: (1) if Human Remains Detection (HRD) canine teams reliably detect residual odor of human remains; (2) if these canines differentiate between residual odors of deceased human remains and live human scent; (3) if analytical chemistry methods detect and differentiate residual odor of living and deceased individuals; and (4) how the integrated results of chemistry and canine behavior analysis help us understand if and how residual odor training can be improved.

Impact Statement: The legal threshold for admitting canine evidence relies on the experience of the handler and their description of the canine's training, neither of which provide the errors associated with the technique required by standard rules of evidence. This workshop will assist attorneys and judges in assessing the probative value of canine alerts that may be detection of residual odor and thus considered evidence by providing results of a coupled canine-analytical chemistry analysis of intact decedent residual odor study. In addition, the standardized Odor Recognition Test (ORT) design will establish guidelines for canine training and testing to improve Human Remains Detection (HRD) certification efforts.

Target Audience: Anthropology, Criminalistics, General, Jurisprudence, Pathology/Biology, Psychiatry & Behavioral Science, Toxicology

Knowledge Level: Basic

Chair:

Dawnie W. Steadman, PhD
University of Tennessee
Knoxville, TN

Co-Chair:

Mary E. Cablk, PhD
University of Tennessee Knoxville
Reno, NV

Presenters:

Shawn R. Campagna, PhD
University of Tennessee
Knoxville, TN

Mary Davis, MSc
University of Tennessee
Knoxville, TN

James C. Ha, PhD
University of Tennessee
Knoxville, TN

WORKSHOPS

W12 Can Human Remains Detection Canine Teams Detect Residual Odor? Results of Odor Recognition Tests and Chemical Analysis

Program:

- 1:00 pm – 1:10 pm **Welcome and Introductions**
Dawnie W. Steadman, PhD
- 1:10 pm – 1:30 pm **Human Remains Detection Dogs (HRD), Residual Odor, and the Courts: The Need for Scientific Evaluation**
Dawnie W. Steadman, PhD
- 1:30 pm – 2:30 pm **Designing and Deploying the Odor Recognition Test (ORT)**
Dawnie W. Steadman, PhD; Mary E. Cablk, PhD; Mary Davis, MSc; James C. Ha, PhD
- 2:30 pm – 2:40 pm **BREAK**
- 2:40 pm – 3:10 pm **Chemical Analysis of Residual Odor Samples**
Shawn R. Campagna, PhD
- 3:10 pm – 4:00 pm **Accuracy of HRD to Detect Residual Odors**
James C. Ha, PhD; Mary E. Cablk, PhD; Dawnie W. Steadman, PhD
- 4:00 pm – 4:30 pm **Discussion and Questions**
All Presenters

WORKSHOPS

Pre-Registration Required—\$275

W13 The Body as the Crime Scene: Traces, Signs, and Scientific Methods

Tuesday, February 18, 2025

8:30 am – 5:00 pm

CE Hours: 7.25

Program Description: This workshop highlights the multidisciplinary approach to forensic investigations, drawing attention to the factors that connect forensic scientists, regardless of discipline or specialization. After learning fundamentals common to forensic science as a whole, attendees will delve into knowledge specific to disciplines (criminalistics, nursing, pathology, toxicology, and scene investigation). Each discipline will focus on the observation, detection, and interpretation of traces to aid in understanding complex events. With a focus on sexual and gender-based violence, attendees will apply the knowledge gained from this workshop interactively via a case study that requires insight from and collaboration across various disciplines.

Educational Objectives: This workshop addresses the multidisciplinary approach to forensic investigations, drawing attention to the factors that connect forensic scientists, regardless of discipline or specialization. Specifically, forensic scientists rely on imagination, curiosity, observation, and reasoning in an effort to detect and assign meaning to traces in order to understand events of interest. After attending this workshop, attendees will: (1) understand what connects forensic scientists at our core, notably the scientific approach to problem-solving through observation, reasoning, and the detection and evaluation of traces; (2) consider the types of traces encountered across several disciplines (e.g., AAFS sections, including Criminalistics, Forensic Nursing Science, Pathology/Biology, Toxicology, General, and others); (3) apply what they have learned by considering traces in context and comparing and contrasting discipline-specific approaches to assign meaning to traces of significance; and (4) understand that the Sydney Declaration was developed with the goal of promoting a shared understanding of traces across forensic science.

Impact Statement: This presentation will impact the forensic science community by fostering the understanding that scientific problem-solving in forensic science extends beyond one's specific-area discipline and should be the foundation on which forensic science endeavors are built.

Target Audience: Criminalistics, Forensic Nursing Science, General, Pathology/Biology, Toxicology

Knowledge Level: Intermediate

Chair:

Michelle D. Miranda, PhD
Farmingdale State College, SUNY
Farmingdale, NY

Co-Chair:

Claude Roux, PhD
University of Technology Sydney
Sydney, Australia

Presenters:

Patrick Buzzini, PhD
Sam Houston State University
Huntsville, TX

Yanko G. Kolev, MD, PhD
Medical University - Pleven/District Hospital MBAL
Gabrovo, Bulgaria

Antonel Olckers, PhD

African Academy of Forensic Sciences (AFSA) & DNAbiotec
Pretoria, South Africa

Patricia M. Speck, DNSc

Hoover, AL

Casper Venter, PhD

West Virginia University
Morgantown, WV

Jessica Volz, DNP

Adventist HealthCare
Shady Grove Medical Center
Rockville, MD

WORKSHOPS

W13 The Body as the Crime Scene: Traces, Signs, and Scientific Methods

Program:

- 8:30 am – 9:00 am **Introduction and Workshop Overview**
All Presenters
- 9:00 am – 10:00 am **Signs, Symptoms, Clues**
Patrick Buzzini, PhD; Michelle D. Miranda, PhD
- 10:00 am – 11:00 am **Traces and the Sydney Declaration**
Claude Roux, PhD
- 11:00 am – 12:00 pm **Criminalistics: Traces and Sexual and Gender-Based Violence**
Antonel Olckers, PhD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 2:00 pm **Forensic Nursing: Traces and Sexual and Gender-Based Violence**
Jessica Volz, DNP; Patricia M. Speck, DNSc
- 2:00 pm – 3:00 pm **Forensic Pathology: Traces and Sexual and Gender-Based Violence.**
Yanko G. Kolev, MD, PhD
- 3:00 pm – 4:00 pm **Forensic Toxicology: Traces and Sexual and Gender-Based Violence**
Casper Venter, PhD
- 4:00 pm – 5:00 pm **Interactive Study and Closing Remarks**
All Presenters

WORKSHOPS

Pre-Registration Required—\$275

W14 The Longest Journey Starts With a Single Step: Evaluating Biological Results Given Activity-Level Propositions—The Problem, the Theory, the Solution, and Strategies for Implementation

Tuesday, February 18, 2025

8:30 am – 5:30 pm

CE Hours: 7.25

Program Description: It is clear that the court is interested in “how-the-DNA-got-there” questions. However, answering hypothetical activity-level questions with “it’s possible” is not a scientifically justifiable, useful, nor recommended practice. The refusal answer of “I can’t answer questions related to how DNA got there” is perhaps even more problematic. This workshop will engage participants in how to prepare and answer activity-level questions with answers that: (1) are not misleading, and therefore minimize the risk of a wrongful conviction; (2) are based on a sound, logical framework; and (3) follow international guidelines. A combination of lectures, demonstrations, and hands-on group activities will be used to show how DNA results may be evaluated with regard to activity-level propositions as well as how to communicate this information. This workshop will cover Case Assessment and Interpretation, existing guidelines, probabilities, likelihood ratios, likelihood ratio equations given activity level propositions, Bayesian networks and sensitivity analyses. In addition, this workshop will focus on how to assign probabilities and likelihood ratios using scientific, peer-reviewed publications. Since case-relevant publications do not always exist, we will also explore how to assign probabilities and likelihood ratios in the presence of limited information. This workshop will cover challenges in answering commonly phrased questions at court and communicating the value of the evidence. Finally, strategies to help with implementation via a series of achievable goals will be presented to equip and empower experts to give answers to these questions of importance to the court.

Educational Objectives: After attending this workshop, attendees will have a better appreciation of how to evaluate DNA results given activity level propositions. They will practice how to correctly formulate activity-level propositions, assign likelihood ratios for biological results given activity-level propositions, apply the Case Assessment and Interpretation (CAI) framework, and see how to use a probabilistic model (e.g., a Bayesian network). With this knowledge, attendees will be able to start to better address hypothetical questions commonly asked in court by recognizing poorly worded questions and providing scientifically correct answers to these questions.

Impact Statement: This presentation will impact the forensic science community by providing guidance on how to answer activity-level questions on biological results in a way that is useful to the court based on a sound logical framework and following international guidelines.

Target Audience: Criminalistics, General, Jurisprudence

Knowledge Level: Intermediate

Chair:

Tim Kalafut, PhD

Sam Houston State University
Huntsville, TX

Co-Chair:

Sheila Willis, DSc

Leverhulme Research for Forensic Science
Dublin, Ireland

Presenter:

Simone Gittelson, PhD

DC Department of Forensic Sciences and
The George Washington University
Washington, DC

WORKSHOPS

W14 The Longest Journey Starts With a Single Step: Evaluating Biological Results Given Activity-Level Propositions—The Problem, the Theory, the Solution, and Strategies for Implementation

Program:

- 8:30 am – 9:00 am **Opening Remarks**
Sheila Willis, DSc; Tim Kalafut, PhD
- 9:00 am – 10:00 am **Do Experts Have Expert Knowledge?**
Tim Kalafut, PhD
- 10:00 am – 10:30 am **Evaluation of Forensic Results and Formulating Activity-Level Propositions**
Simone Gittelson, PhD
- 10:30 am – 10:45 am **BREAK**
- 10:45 am – 11:00 am **What Is a Probability and How to Report It**
Simone Gittelson, PhD
- 11:00 am – 11:40 am **But Juries Don't Understand the Likelihood Ratio**
Tim Kalafut, PhD
- 11:40 am – 12:00 pm **Bayesian Networks**
Simone Gittelson, PhD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 1:15 pm **Case Assessment and Interpretation**
Simone Gittelson, PhD; Tim Kalafut, PhD
- 1:15 pm – 2:30 pm **Mock Case Exercise: Part 1**
Sheila Willis, DSc; Tim Kalafut, PhD; Simone Gittelson, PhD
- 2:30 pm – 2:45 pm **BREAK**
- 2:45 pm – 3:45 pm **Mock Case Exercise: Part 2**
Sheila Willis, DSc; Tim Kalafut, PhD; Simone Gittelson, PhD
- 3:45 pm – 4:00 pm **Activity-Level Likelihood Ratios and Sensitivity Analyses**
Simone Gittelson, PhD
- 4:00 pm – 4:15 pm **Testifying in Court**
Tim Kalafut, PhD
- 4:15 pm – 5:00 pm **A Possible Way Forward**
Sheila Willis, DSc
- 5:00 pm – 5:30 pm **Questions and Answers/Closing Remarks**
Sheila Willis, DSc; Tim Kalafut, PhD; Simone Gittelson, PhD

WORKSHOPS

Pre-Registration Required—\$275

W15 Artificial Intelligence (AI) in Forensic Education: The Good, the Great, and the Truth

Tuesday, February 18, 2025

8:30 am – 4:45 pm

CE Hours: 6.25

Program Description: This workshop offers a comprehensive exploration of AI's role in forensic education. It begins with an introduction to the ethical considerations of AI use in academia, highlighting the intersection of AI and plagiarism. The session then delves into the application of AI systems in higher education, including an overview of the HiPerGator supercomputer. Attendees will learn how students can leverage AI for exam preparation, utilizing AI-powered platforms, chatbots, virtual tutors, and flashcard apps. The workshop also addresses the application of AI in solving complex societal issues, specifically the Missing and Murdered Indigenous Women crisis. Ethical considerations of AI use within forensic education are discussed, with a focus on privacy, bias, transparency, and academic integrity. The workshop concludes with a hands-on session on mastering AI prompt generation, equipping attendees with the skills to create engaging, adaptive, and industry-relevant learning experiences for forensic science students. This workshop promises a deep dive into the transformative potential of AI in forensic education.

Educational Objectives: This presentation aims to examine and apply the use of AI in forensic science education, create learning opportunities for students using AI tools, and evaluate the ethics and challenges of using of AI in education.

Impact Statement: This workshop will have a profound impact on the forensic science community by highlighting the transformative potential of AI in education. The workshop targets all people in the forensic science community, especially educators, as the use of AI enters our disciplines. It will provide insights into the ethical implications of AI, explore the application of supercomputers, demonstrate how students can leverage AI for efficient exam preparation, and address complex issues of victimization. The workshop will delve into the ethical considerations of AI use within forensic education, discussing concerns such as privacy, bias, transparency, and academic integrity. The workshop will equip attendees with the skills to craft precise, context-rich prompts for AI-powered tools, facilitating the creation of engaging, adaptive, and industry-relevant learning experiences for forensic science students. This workshop promises to be a game-changer in harnessing the power of AI for the advancement of forensic education.

Target Audience: All Sections

Knowledge Level: Basic

Chair:

Gina Londino-Smolar, EdD
IU Indianapolis
Indianapolis, IN

Co-Chair:

Kelly M. Elkins, PhD
Towson University
Towson, MD

Presenters:

Theresa M. DeAngelo, MSFS
Maryland State Police
Forensic Sciences Division
Pikesville, MD

Amber L. Fortney, MS
University of Central Oklahoma
Perry, OK

Meagan Raddatz, MS

University of Central Oklahoma
Perry, OK

Claire E. Shepard, MS

LA Delta Community College
Monroe, LA

Ying Zhang, MS

University of Florida
Gainesville, FL

WORKSHOPS

W15 Artificial Intelligence (AI) in Forensic Education: The Good, the Great, and the Truth

Program:

- 8:30 am – 8:45 am **Welcome**
Kelly M. Elkins, PhD
- 8:45 am – 9:30 am **Introduction—College Policy, Academic Integrity, Ethics**
Kelly M. Elkins, PhD
- 9:30 am – 10:15 am **The Application of AI Systems in Higher Education**
Ying Zhang, MS
- 10:15am – 10:30 am **BREAK**
- 10:30 am – 11:15 am **Student Use of AI for Preparing for Exams**
Claire E. Shepard, MS
- 11:15 am – 12:00 pm **Artificial Intelligence Applications in Missing and Murdered Indigenous Women
Victimization Prevention and Cold Case Resolution**
Amber L. Fortney, MS; Meagan Raddatz, MS
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 1:45 pm **Ethical Considerations for AI Use Within Forensic Education**
Theresa M. DeAngelo, MSFS
- 1:45 pm – 2:30 pm **Question and Answer Session**
All Presenters
- 2:30 pm – 2:45 pm **BREAK**
- 2:45 pm – 3:30 pm **Crafting the Future: Mastering AI Prompt Generation for Enhanced Forensic Education**
Gina Londino-Smolar, EdD
- 3:30 pm – 4:30 pm **Hands-On Evaluation on Utilizing Various AI Tools for Educational Purposes**
All Presenters
- 4:30 pm – 4:45 pm **Closing Remarks**
Gina Londino-Smolar, EdD

WORKSHOPS

Pre-Registration Required—\$275

W16 How to Be a Long-Term Unidentified and Missing Persons Investigator: The Investigators' Toolkit

Tuesday, February 18, 2025

8:30 am – 6:00 pm

CE Hours: 7.5

Program Description: This workshop was designed to assist investigators from law enforcement agencies and medical examiners/coroners in investigating their long-term unidentified human remains cases as well as long-term missing persons cases. Representatives from the Center for Forensic Science Advancement and Application at RTI International, National Center for Missing and Exploited Children (NCMEC), the DNA Doe Project, the Federal Bureau of Investigation (FBI), and a cold case detective from Virginia will discuss how their agencies can assist and provide support to those investigating unidentified human remains and long-term missing persons cases.

A presentation on forensic intelligence databases will outline the utility of remote, multidisciplinary investigations across jurisdictions. The Program Manager for the Forensic Services Unit at NCMEC will share resources and case examples on how NCMEC can assist and support juvenile investigations for both unidentified human remains and missing persons investigations. The Bureau of Justice Assistance (BJA) will discuss federal resources and grant opportunities for those investigating missing and unidentified persons cases.

The second block includes presentations that are more hands-on. The executive director from the DNA Doe Project will discuss Forensic Investigation Genetic Genealogy and the resources that the DNA Doe Project can provide. The FBI's Major Incident Program Manager will give an overview on the Latent Print Unit in the FBI and their support services, as well as a chemical demo on how to retrieve fingerprints on degraded human remains. The last presentation is from a local cold case detective who will present their case of an unidentified human remains case from start to finish.

The workshop will conclude with a discussion panel of the above speakers and discussion and assessment of attendees' current investigations, if applicable.

Educational Objectives: During this presentation, attendees will receive information and training on various resources used to investigate long-term unidentified human remains cases, as well as long-term missing persons cases. Attendees will learn how juvenile cases differ from adult unidentified human remains and missing persons cases. Information will be shared on best practices for investigation and will cover a case from start to finish.

After attending the workshop, attendees will: (1) have a better understanding of how to investigate unidentified human remains and long-term missing persons cases; (2) know how to start an unidentified human remains and/or long-term missing persons investigation; (3) understand the resources and support agencies available; (4) be able to determine the best resources that can be utilized for their own cold cases; (5) be able to discuss their own cases and investigations and receive real-time support from the speakers on how best to move their investigations forward.

Impact Statement: The workshop will impact the forensic science community by providing a toolkit for investigators to use during unidentified human remains and missing persons investigations. While there are some agencies who have a dedicated cold-case unit who is responsible for long-term unidentified human remains cases and long-term missing persons cases, the reality is that most agencies across the nation are too small, do not have the budget, and/or do not have the manpower to have a dedicated unit. This workshop will provide attendees with information how to begin a cold unidentified human remains case or missing persons case, and how to keep the cases active. It will also provide attendees with a knowledge base on investigations and a point of contact for resources on cold cases nationwide.

Target Audience: Criminalistics, General

Knowledge Level: Basic

WORKSHOPS

W16 How to Be a Long-Term Unidentified and Missing Persons Investigator: The Investigators' Toolkit

Chair:

Lara Newell, MA
Virginia Office of the
Chief Medical Examiner
Richmond, VA

Co-Chair:

Katharine C. Pope, MA
RTI International
Fruitland, MD

Presenters:

Hannah Barcus, MS
Bureau of Justice Assistance
Washington, DC

Mark A. Bush, BAS
Loudoun County Sheriff's Office
Leesburg, VA

Bryan T. Johnson, MSFS
FBI
Quantico, VA

Jennifer Randolph, MSc

DNA Doe Project
Hanover, DE

Nancy Rissi, BS
Riverside County Sheriff's Department
Riverside, CA

Carol Schweitzer, MA
National Center for Missing & Exploited
Children
Alexandria, VA

Program:

- 8:30 am – 9:00 am **Workshop Introduction and Intro to VA OCME/LTUC**
Lara Newell, MA
- 9:00 am – 10:00 am **Multidisciplinary Cold Case investigations: On the Use and Utility of Forensic Intelligence Databases**
Katharine C. Pope, MA
- 10:00 am – 12:00 pm **NCMEC Resources for Long-Term Missing and Unidentified Juvenile Cases Using Case Examples**
Carol Schweitzer, MA
- 12:00 pm – 12:30 pm **Resources for Working Missing and Unidentified Persons Cases**
Hannah Barcus, MS
- 12:30 pm – 1:30 pm **BREAK**
- 1:30 pm – 2:45 pm **FIGG**
Jennifer Randolph, MSc
- 2:45 pm – 4:00 pm **Latents and Chemical Demonstration**
Bryan T. Johnson, MSFS
- 4:00 pm – 5:30 pm **Reconstructing a Homicide**
Mark A. Bush, BAS
- 5:30 pm – 6:00 pm **Questions and Answers Panel**
All Presenters

WORKSHOPS

Pre-Registration Required—\$275

W17 Practical Neuropathology for Coroners and Medical Examiners: Basic Concepts and Advanced Principles

Tuesday, February 18, 2025

8:30 am – 5:00 pm

CE Hours: 7.0

Program Description: Assessing Central Nervous System (CNS) trauma is critical in neuropathology and forensic pathology and encompasses closed- or open-head injuries, multiple types of forms of parenchymal brain injury, and secondary complications such as edema and increased intracranial pressure. Establishing a link between trauma and death is crucial for determining the cause and manner of death.

Child abuse, particularly abusive head trauma, is a complex and vital focus in forensic neuropathology. A comprehensive workup is essential to document the findings and determine their relevance in terms of evidentiary significance and to rule out potential confounders to pediatric head trauma and child abuse.

CNS disorders such as epilepsy may present significant challenges when associated with sudden and unexplained death (Sudden Unexplained Death in Epilepsy [SUDEP]), as they often lack morphological indicators. Other natural disease processes, such as undiagnosed brain tumors, aneurysms, infections, neurodegenerative diseases, and cerebrovascular accidents, can further complicate forensic assessments and may have public health implications.

Different brain pathologies necessitate varied approaches, including detailed external examinations, precise sampling for microscopic analysis, and specialized dissection techniques tailored to highlight specific findings.

This workshop will explore fundamental and advanced aspects of brain pathology in forensic autopsies, including but not limited to CNS anatomy, head trauma, neurovascular diseases, infections, specialized autopsy dissection techniques, and microscopic examination of rare or uncommon conditions. Attendees will participate in didactic sessions, case studies, step-by-step dissection guides, and evidence-based discussions led by forensic and neuropathologists, facilitating interactive learning and skill enhancement.

Educational objectives: After attending this workshop, participants will have an enhanced knowledge base of neuropathology as seen in a busy forensic pathology office. Emphasis will be placed on natural diseases, trauma, microscopic sampling and examination, and pediatric non-accidental head trauma. Attendees will develop skills necessary for comprehensive brain assessments at autopsy and techniques to address both common and unusual pathologies. They will be exposed to various specimens and techniques through didactic presentations, and case-based discussions.

Impact Statement: This workshop will emphasize the multifaceted nature of brain pathology in the context of forensic autopsy. Didactic lectures and practical instruction using detailed anatomical images will be provided to enhance autopsy performance and competency, with an additional focus on the workup and evaluation of pediatric non-accidental head injury.

Target Audience: General, Jurisprudence, Pathology/Biology

Knowledge Level: Basic

Chair:

Lorenzo Gitto, MD

Cook County Medical Examiner's Office
Chicago, IL

Presenters:

Jared Ahrends, MD, PhD

Northwestern University
Chicago, IL

Rudolph J. Castellani, MD

Northwestern University
Feinberg School of Medicine
Chicago, IL

Co-Chair:

Ponni Arunkumar, MBBS

Cook County Medical Examiner's Office
Chicago, IL

Anfisa Baiandurova, MD

West Tennessee Regional Forensic Center
Memphis, TN

Samantha N. Champion, MD

Cook County Medical Examiner
Chicago, IL

Michelle A. Jorden, MD

Santa Clara County
Medical Examiner/Coroner

WORKSHOPS

W17 Practical Neuropathology for Coroners and Medical Examiners: Basic Concepts and Advanced Principles

Program:

- 8:30 am – 8:45 am **introduction**
Lorenzo Gitto, MD; Ponni Arunkumar, MBBS
- 8:45 am – 9:00 am **Neuropathology and the Coroner**
Ponni Arunkumar, MBBS
- 9:00 am – 9:45 am **Introduction to Forensic Neuropathology, CNS Anatomy, and Histology**
Samantha N. Champion, MD
- 9:45 am – 10:15 am **Cerebrovascular Disease**
Anfisa Baiandurova, MD
- 10:15 am – 10:30 am **BREAK**
- 10:30 am – 11:00 am **Uncommon and Interesting Central Nervous System Tumors/Lesions**
Michelle A. Jorden, MD
- 11:00 am – 11:30 am **Neurodegenerative Disease Interpretation**
Rudolph J. Castellani, MD
- 11:30 am – 12:00 pm **Infections of the Central Nervous System**
Lorenzo Gitto, MD
- 12:00 pm – 1:00 pm **BREAK**
- 1:00 pm – 2:00 pm **An Evidence-Based Review of Pediatric Abusive Head Trauma**
Rudolph J. Castellani, MD; Jared Ahrendsen, MD, PhD
- 2:00 pm – 2:30 pm **Adult Blunt Head Trauma**
Samantha N. Champion, MD
- 2:30 pm – 3:00 pm **Is Modern Chronic Traumatic Encephalopathy Appropriate to Death Certification?**
Rudolph J. Castellani, MD
- 3:00 pm – 3:15 pm **BREAK**
- 3:15 pm – 3:45 pm **Seizures**
Samantha N. Champion, MD
- 3:45 pm – 4:15 pm **Special Autopsy Dissection Techniques**
Lorenzo Gitto, MD
- 4:15 pm – 4:45 pm **Brain Dissection and Cervical Spine Dissection in Head Trauma**
Jared Ahrendsen, MD, PhD
- 4:45 pm – 5:00 pm **Discussion and Questions**
All Presenters

WORKSHOPS

Pre-Registration Required—\$150

W18 A New Frontier—Federal Agencies Paving a Way for Forensic Drug Analysis With AI

Tuesday, February 18, 2025

8:00 am – 12:00 pm

CE Hours: 3.25

Program Description: Federal agencies around the world are embracing the new frontier of machine learning and advanced technology and considering how to AI within the current systems. This workshop will provide insight into various examples of how federal agencies are applying machine learning capabilities and other technological advances to forensic science and drug analysis. The National Institute of Standards and Technology (NIST) researchers will be discussing their efforts in creating a catalog of AI-enabled tools currently being used by forensic science service providers and researchers for forensic science applications, to include available or near-market tools. Other examples include Drug Enforcement Administration's (DEA's) implementation of state-of-the-art automation for sample preparation related to screening and quantitative analysis. Using advanced robotics, samples are prepared for general screening of controlled substances and quantitative analysis. The Canada Border Services Agency will present on the transformative capabilities of existing software in conjunction with the portable mass spectrometers for narcotics detection at the Canadian Border. Participants will gain insights into the sophisticated software algorithm, which significantly enhances confidence in direct inject Mass Spectrometry (MS) spectral matching, providing rapid and precise results.

In addition, attendees will participate in an interactive exercise in which they will identify areas in seized drug processes where AI-enabled tools have the potential to be transformative (e.g., evidence analysis, quality control, reducing the likelihood and consequence of error and cognitive bias, and research activities). The workshop will finish with information on the progress toward establishing a road map for the responsible development, testing, evaluation, and adoption of trustworthy machine-learning and AI systems in forensic science.

Educational Objectives: After attending this workshop, attendees will: (1) be able to better understand how federal agencies in the United States and internationally are using machine learning tools and other technological advances in seized drug analysis; (2) be able to evaluate the challenges with robotics and algorithms to improve laboratory analytical capabilities and seized drug workflow strategies; and (3) be able to explain how federal agencies are addressing the new frontier of machine-learning and artificial intelligence in support of forensic science investigations.

Impact Statement: This workshop will benefit the forensic science community by highlighting how federal agencies are considering the benefits, risks, and limitations that machine learning capabilities and technological advances have brought to forensic science seized drug analysis, such as collaborations on investigations, epidemiology, drug intelligence, and canine training, and operations. It will also highlight how embracing these opportunities can strengthen the efficiency of laboratory operations, utility of the results, and timeliness of testing.

Target Audience: Criminalistics, General

Knowledge Level: Basic

Chair:

Agnes D. Winokur, PhD
Drug Enforcement Administration
Washington, DC

Scott R. Oulton, BS

Drug Enforcement Administration
Arlington, VA

Co-Chair:

Kimberly Westberry, PhD
USACIL
Forest Park, GA

Henry Swofford, PhD

National Institute of Standards and Technology
Gaithersburg, MD

Presenters:

Sandra Ferreira, MSc
Canada Border Service Agency
Ottawa, Ontario, Canada

Melissa Taytlor, BA

National Institute of Standards and Technology
Gaithersburg, MD

WORKSHOPS

W18 A New Frontier—Federal Agencies Paving a Way for Forensic Drug Analysis With AI

Program:

- 8:30 am – 8:45 am **Introduction**
Kimberly Westberry, PhD
- 8:45 am – 9:30 am **New Frontier—Landscape of Artificial Intelligence-Enabled Tools**
Melissa Taylor, BA; Henry Swofford, PhD
- 9:30 am – 10:15 am **Empowering Innovation: How Federal Agencies Harness Novel Technology for Advancing Forensic Science**
Sandra Ferreira, MSc
- 10:15 am – 10:30 am **BREAK**
- 10:30 am – 11:00 am **Exploring Algorithms and Predictive Models**
Agnes D. Winokur, PhD
- 11:00 am – 11:30 am **The Use of Advanced Technological Automation for Seized Drug Analysis**
Scott R. Oulton, BS
- 11:30 am – 12:15 pm **Developing a Roadmap for the Adoption of AI Systems**
Melissa Taylor, BA; Henry Swofford, PhD
- 12:15 pm – 12:30 pm **Questions and Answers**
All Presenters

WORKSHOPS

Pre-Registration Required—\$150

W19 Unmasking the Evidence: How Defense Experts Prevented Wrongful Convictions

Tuesday, February 18, 2025

8:30 am – 12:30 pm

CE Hours: 3.5

Program Description: The program will highlight the challenges faced by legal professionals who may lack the scientific background needed to assess forensic evidence accurately. It emphasizes the critical role that defense experts play in preventing wrongful convictions by scrutinizing evidence, reports, testimony, and the actions of forensic analysts.

Anjali Ranadive and Tiffany Roy, both attorneys and forensic scientists with significant experience, aim to shed light on systemic issues within the legal system through real case examples. They will provide insights into various problems such as evidence mishandling, credibility of testing procedures, misleading language in reports, and biases in case theories. By bringing attention to these issues, they will emphasize the importance of having competent experts for the defense to challenge flawed evidence, interpretations, and statistical analyses that could sway court decisions unjustly.

The workshop underscores the notion that without the input of knowledge of experts on the defense side, there is a risk of overlooking crucial opportunities to question the validity of evidence presented by the prosecution. This can ultimately impact the fairness of legal outcomes and the dispensation of justice. By advocating for a more balanced and informed approach to evaluate forensic evidence in court, the speakers aim to promote a greater sense of integrity and equity within the criminal justice system

Educational Objectives:

1. Understanding the adversarial nature of the legal system and its implications for forensic evidence;
2. Recognizing the challenges faced by attorneys and judges in evaluating scientific evidence without a background in science.
3. Exploring the impact of prestigious institutions like the Federal Bureau of Investigation (FBI) on perceptions of evidence credibility.
4. Analyzing the role of language in forensic reports and testimony, including potential inaccuracies and biases.
5. Enhancing skills in scrutinizing evidence collection, chain-of-custody procedures, and testing methodologies.
6. Developing awareness of confirmation bias and the dangers of tunnel vision in legal proceedings.
7. Recognizing the importance of competent expert testimony in challenging misleading evidence presentations.
8. Examining real-life cases to illustrate systemic issues in handling evidence and presenting cases in court.
9. Enhancing critical thinking skills in evaluating laboratory procedures, interpretation methods, and statistical analyses.
10. Promoting ethical practices in legal and forensic professions to ensure the pursuit of justice.

Impact Statement: The training program aims to empower legal professionals working in the criminal justice field with the knowledge and skills necessary to navigate the complexities of forensic evidence. By shedding light on systemic issues, promoting critical thinking, and advocating for ethical practices in evidence presentation, this program seeks to enhance the pursuit of justice in the legal system. Participants will be equipped to challenge misleading evidence, recognize biases in language, and ultimately contribute to a fairer and more transparent judicial process. Through real-case examples and expert guidance, this program strives to make a lasting impact on how forensic evidence is handled, ensuring that the quest for truth and justice remains paramount in legal proceedings.

Target Audience: All Sections

Knowledge Level: Intermediate

Chair:

Anjali Ranadive, JD
SciLawForensics, Ltd
Phoenix, AZ

Co-Chair:

Tiffany A. Roy, MSFS
ForensicAid, LLC
West Palm Beach, FL

WORKSHOPS

W19 Unmasking the Evidence: How Defense Experts Prevented Wrongful Convictions

Program:

- 8:30 am – 8:45 am **Introductions**
Anjali Ranadive, JD; Tiffany A. Roy, MSFS
- 8:45 am – 9:30 am **Decapitation in the Dakotas**
Anjali Ranadive, JD
- 9:30 am – 10:15 am **MI v Grondin**
Tiffany A. Roy, MSFS
- 10:15 am – 10:30 am **BREAK**
- 10:30 am – 11:15 am **AR v Dean**
Anjali Ranadive, JD
- 11:15 am – 12:00 pm **FL v Resiles**
Tiffany A. Roy, MSFS
- 12:00 pm – 12:30 pm **Questions and Answers**
Anjali Ranadive, JD; Tiffany A. Roy, MSFS

WORKSHOPS

Pre-Registration Required—\$150

W20 Signed by Hand or by Machine?

Tuesday, February 18, 2025

8:30 am – 12:00 pm

CE Hours: 3.0

Program Description: This workshop will introduce FDEs to new types of machine-generated signatures. There will be a significant hands-on session where attendees will examine and compare original handwritten signatures and original machine-generated signatures. There will be information given as to how the signatures were produced. Discriminating features of the signature types will be discussed by the attendees.

Educational Objectives: This workshop will introduce attendees to new methods of creating machine-generated signatures. Features of these types of signatures in comparison with handwritten signatures will be discussed and demonstrated.

Impact Statement: This workshop will provide Forensic Document Examiners (FDEs) with information on how to deal with the examinations of signatures that are possibly machine-generated. The examiners' knowledge should enhance the quality and reliability of opinions given as to signature authenticity.

Target Audience: Criminalistics, Engineering & Applied Sciences, General, Jurisprudence, Questioned Documents

Knowledge Level: Intermediate

Chair:

Linton Mohammed, PhD
Forensic Science Consultants, Inc.
Poway, CA

Presenter:

Jonathan Heckerth, MSc
Zurich Forensic Science Institute
Zurich, Switzerland

Co-Chair:

Zain Bhaloo, MSc
Canada Border Services Agency
Ottawa, Ontario, Canada

Program:

8:30 am – 8:45 am	Welcome/Introductions <i>Linton Mohammed, PhD</i>
8:45 am – 10:00 am	Hands-On Session <i>Jonathan Heckerth, MSc</i>
10:00 am – 10:20 am	BREAK
10:20 am – 11:00 am	Hands-On Session <i>Jonathan Heckerth, MSc</i>
11:00 am – 11:30 am	Machine-Generated Signature Production <i>Jonathan Heckerth, MSc</i>
11:30 am – 12:00 pm	Group Discussion <i>Linton Mohammed, PhD; Jonathan Heckerth, MSc</i>

WORKSHOPS

Pre-Registration Required—\$150

W21 All Rise 2.0: Navigating the Judicial Process as an Expert Witness

Tuesday, February 18, 2025

8:30 am – 12:00 pm

CE Hours: 3.75

Program Description: Forensic scientists are trained in the techniques, theory, history, and standards associated with their particular discipline. Often lacking, however, is training in the application of those skills to the courtroom setting and, in particular, the presentation of expert testimony. A forensic expert’s ability to effectively communicate in a courtroom setting is vital if that expert is going to make meaningful contributions to the justice system. This workshop seeks to improve courtroom communication skills by providing a combination of lectures and hands-on learning that will introduce the basic foundations of the United States court system, the roles of the participants, the types of pre-trial and trial processes that occur, and the opportunity for attendees to practice testifying in a true-to-life courtroom environment with case-based scenarios.

Educational Objectives: After attending this workshop, attendees will be well-versed in the decorum, procedures, expectations, and environment of a modern United States courtroom through active participation in courtroom proceedings.

Impact Statement: This presentation will impact the forensic science community by offering real-world experience in expert testimony in an environment conducive to productive learning without the stress of an actual trial.

Target Audience: All Sections

Knowledge Level: Basic

Chair:
Laura C Fulginiti, PhD
MCOME
Phoenix, AZ

Presenters:
Katelyn L. Bolhofner, PhD
Arizona State University
Phoenix, AZ

Gary C. McDonald, Jr., JD
Dallas County Criminal District
Attorney’s Office
Dallas, TX

Co-Chair:
Daniel W. Martin, JD
State of Arizona
Phoenix, AZ

Betty Layne DesPortes, JD
Benjamin & DesPortes PC
Richmond, VA

Andrew C. Seidel, PhD
King County Medical Examiner’s Office
Seattle, WA

Kristen Hartnett-McCann, PhD
CT Office of the Chief Medical Examiner
Farmington, CT

Program:

8:30 am – 8:45 am	Welcome/Introduction <i>Daniel W. Martin, JD; Laura C Fulginiti, PhD</i>
8:45 am – 9:00 am	Courtroom Procedure and Protocol <i>Daniel W. Martin, JD</i>
9:00 am – 9:45 am	What to Expect as an Expert Providing Testimony in Judicial Proceedings <i>Laura C Fulginiti, PhD</i>
9:45 am – 10:00 am	BREAK
10:00 am – 11:40 am	Courtroom Scenarios #1 Through #5 <i>All Presenters</i>
11:40 am – 12:00 pm	Courtroom Scenarios #6 and Closing Remarks <i>All Presenters</i>

WORKSHOPS

Pre-Registration Required—\$150

W22 Chasing the Dragon: Navigating Death Investigations in the Era of Novel Psychoactive Substances

Tuesday, February 18, 2025

8:30 am – 12:00 pm

CE Hours: 3.25

Program Description: This half-day workshop is a collaboration between the AAFS ad-hoc Opioid and Emerging Drugs Committee and the Society of Forensic Toxicologists (SOFT) NPS Committee. From the scene of a suspected overdose to the final determination of cause and manner of death, this workshop will demonstrate how information from a range of forensic scientists can be applied to a death investigation and subsequently further the understanding of NPS for both forensic practitioners and the public.

There are hundreds of NPS on the market today with a wide range of psychoactive effects; however, most of these substances have unknown pharmacological properties (e.g., potency, metabolism, toxicity), complicating the interpretation of their impact on public health and safety. In addition, keeping up with the drug market becomes a challenge, and forensic practitioners and researchers are left chasing information on NPS that quickly becomes outdated due to the volatility of the drug supply. Whether it is crime scene investigation, pathological findings, pharmacological and toxicological interpretations, or chemical analysis, when trying to understand NPS, the work of one forensic discipline is regularly influenced by that of another. By working together, forensic scientists can increase their chances of providing timely information that can aid in drug-related death investigation, updating drug trends, and maintaining public policy and drug prevention outreach in the community.

Educational Objectives: Upon completion of this workshop, the participant should be able to: (1) interpret key differences between the Novel Psychoactive Substance (NPS) classes and how they impact cause and manner of death; (2) discuss the difficulties encountered in investigating NPS in the context of forensic toxicology, seized drug analysis, death scene investigation, toxicological interpretation, and accurate certification of cause and manner of death and; (3) appreciate the importance of disseminating timely information regarding emerging NPS trends and the impact on public health and harm reduction.

Impact Statement: These presentations will impact the forensic science community by emphasizing the importance of collaboration and dissemination of relevant and accurate information across forensic science disciplines regarding the identification and interpretation of NPS. Additionally, these presentations will increase understanding of the different classes of NPS, how they are marketed and often mislabeled, types of products to look for on the scene, and the role these drugs play in death investigation and certification.

Target Audience: Pathology/Biology, Toxicology

Knowledge Level: Intermediate

Chair:

Elisa N. Shoff, MS

Miami-Dade
Medical Examiner Department
Miami, FL

Presenters:

Kayla N. Ellefsen, PhD

Travis County Medical Examiner
Austin, TX

Joshua Z. Seither, PhD

Armed Forces Medical Examiner System
Division of Forensic Toxicology
Dover, DE

Co-Chair:

Mary E. Zaney, BSc

Miami-Dade Medical Examiner
Miami, FL

David Fintan Garavan, PhD, MD

District 10 ME Office
Winter Haven, FL

Chip Walls, BS

Tox Lab
Miami, FL

Alex J. Krotulski, PhD

Center for Forensic Science Research
and Education
Horsham, PA

Erin Worrell, BSc

Franklin County Center of Forensic Science
Office of the Coroner
Columbus, OH

WORKSHOPS

W22 Chasing the Dragon: Navigating Death Investigations in the Era of Novel Psychoactive Substances

Program:

- 8:30 am – 8:35 am **Welcome**
Elisa N. Shoff, MS; Mary E. Zaney, BSc
- 8:35 am – 8:55 am **NPS Stimulants**
Elisa N. Shoff, MS
- 8:55 am – 9:15 am **NPS Benzodiazepines**
Kayla N. Ellefsen, PhD
- 9:15 am – 9:35 am **Off the Grid**
Chip Walls, BS
- 9:35 am – 10:05 am **NPS Opioids, Illicit Fentanyl, and Xylazine**
Alex J. Krotulski, PhD
- 10:05 am – 10:15 am **BREAK**
- 10:15 am – 10:35 am **NPS on the Crime Scene**
Erin Worrell, BSc
- 10:35 am – 10:55 am **Mislabeled Products**
Joshua Z. Seither, PhD
- 10:55 am – 11:15 am **Postmortem Cases Involving Counterfeit Pills**
Mary E. Zaney, BSc
- 11:15 am – 11:45 am **Certifying Cause and Manner of Death in Cases With NPS**
David Fintan Garavan, PhD, MD
- 11:45 am – 12:00 pm **Questions and Answers**
All Presenters

WORKSHOPS

Pre-Registration Required—\$150

W23 A Skeletal Atlas of Elder Abuse: Beta Testing a Digital Diagnostic and Educational Tool

Tuesday, February 18, 2025

1:00 pm – 4:30 pm

CE Hours: 4.0

Program Description: Increasing rates of elder abuse in the United States over the past few decades have produced an urgent need for improved diagnostic criteria to better design intervention procedures, to implement recognition criteria, and to achieve justice for victims. Physical abuse of elders represents the most severe manifestation of this trend. Yet physical abuse is difficult to prove and may be masked by attribution of injury to medication or accident. In this workshop, attendees will learn how aging impacts skeletal trauma incidence and patterning. The presenters will provide an overview of differences in the skeletal patterns of injury between accidental falls and cases of abuse/neglect uncovered in our NIJ-funded research, as well as the impact of bone density loss on these patterns. Attendees will be introduced to the first complete iteration of the Skeletal Atlas of Elder Abuse — A Digital Tool for Diagnosis and Education. The presenters will discuss the development of the online platform, its aims and future direction, and will request attendee feedback through the beta testing of the site. Participants will have the opportunity to hear from the developers of the machine learning and AI models driving the diagnostics of the site as well as from the software development team responsible for the creation of the atlas and its many interactive features. This workshop probes the opportunities (and challenges) associated with the development of such a tool, asking attendees for participation, suggestions, direct interaction, and user experience measures.

Educational Objectives: After attending this workshop, attendees should be able to: (1) describe methods used to characterize/assess skeletal fracture patterns in elderly individuals and the ways in which aging affects fracture and recovery; (2) understand there are different patterns of trauma associated with abuse/neglect and with accidental falls, (3) understand how to navigate the presented digital atlas of elder abuse, both for educational and diagnostic purposes; and (4) participate in beta testing the atlas and contribute usability data toward its final construction.

Impact Statement: Ten percent of adults aged 65+ will experience some form of abuse annually. Physical abuse and caregiver neglect account for most cases, yet they remain difficult to prove. Skeletal expressions of abuse offer key indications of inflicted and untreated injuries but are masked by assignment to accidental falls. Funded by the National Institute of Justice (NIJ), our research aims to produce a standard for the diagnosis of elder abuse in the skeletal system. This presentation will impact the forensic science community by offering the first iteration of a digital tool for diagnosis and education and for collaboration and learning so that we may improve our understanding of fractures and their contexts in elderly individuals.

Target Audience: Anthropology, Criminalistics, Digital & Multimedia Sciences, Forensic Nursing Science, General, Pathology/Biology

Knowledge Level: Basic

Chair:

Katelyn L. Bolhofner, PhD
Arizona State University
Phoenix, AZ

Co-Chair:

Laura C Fulginiti, PhD
MCOME
Phoenix, AZ

Presenters:

Jane E. Buikstra, PhD
Arizona State University
Phoenix, AZ

Kevin A. Gary, PhD
Arizona State University
Phoenix, AZ

Jacob A. Harris, PhD
Arizona State University
Phoenix, AZ

WORKSHOPS

W23 A Skeletal Atlas of Elder Abuse: Beta Testing a Digital Diagnostic and Educational Tool

Program:

- 1:00 pm – 1:30 pm **Introduction and Background**
Katelyn L. Bolhofner, PhD
- 1:30 pm – 2:00 pm **The Aging Skeleton**
Jane E. Buikstra, PhD
- 2:00 pm – 2:30 pm **Probability Modeling and Skeletal Trauma**
Jacob A. Harris, PhD
- 2:30 pm – 2:45 pm **BREAK**
- 2:45 pm – 3:30 pm **A Digital Atlas of Skeletal Trauma—An introduction**
Kevin A. Gary, PhD
- 3:30 pm – 4:15 pm **Beta Testing and Usability of the Digital Atlas**
Kevin A. Gary, PhD; Jacob A. Harris, PhD; Katelyn L. Bolhofner, PhD
- 4:15 pm – 4:30 pm **Wrap-Up and Implications for the Forensic Community**
Laura C Fulginiti, PhD

WORKSHOPS

Pre-Registration Required—\$150

W24 ANSI/ASB Standard 175—Standard for Interpreting, Comparing, and Reporting DNA Test Results Associated With Failed Controls and Contamination Events: Understanding, Implementation, and Legal Issues

Tuesday, February 18, 2025

1:00 pm – 5:00 pm

CE Hours: 3.5

Program Description: Incidents of contamination of controls and evidence in laboratories conducting Polymerase Chain Reaction (PCR) -based Short Tandem Repeat (STR) testing have been increasingly detected as the sensitivity of the assays has improved over the past decade through improved technological advances and with the implementation of elimination databases to detect the DNA profiles of laboratory staff and other individuals involved in the collection and handling of evidence, along with the use of advanced software for evaluating data. Positive control failure may occur when the DNA is not added correctly or may be due to a technology failure.

Historically, when these events occurred, re-testing was conducted on a portion of the remaining evidence, and the new test results were reported. However, when the evidence and DNA extract have been consumed, re-testing is not an option. It is also not always prudent to consume more evidence with re-testing. Situations where this may be relevant and how this pertains to the requirements in the Standard for Interpreting, Comparing, and Reporting DNA Test Results Associated with Failed Controls and Contamination Events will be discussed. This Standard has recently been published as an ANSI/ASB Standard but has been listed as a Proposed Standard on the OSAC Registry (OSAC 2020-S-00040) and has been available for implementation in DNA testing laboratories for several years.

This workshop may be beneficial to DNA analysts/technical leaders/supervisors, QA/QC managers, trainers, and laboratory directors overseeing any type of testing where controls may fail or contamination can occur and to attorneys and judges encountering DNA tests results from these situations.

Educational Objectives: Attendees at this workshop will learn about each of the requirements in the newly published Standard in relationship to requirements in other standards (e.g., Federal Bureau of Investigation Quality Assurance Standards (FBI QAS), International Organization for Standardization (ISO) 17025, American National Standards Institute/Academy Standards Board (ANSI/ASB) published, Organization of Scientific Area Committees (OSAC) Registry) while gaining insights for their implementation. Approaches to consider for evaluating, decision-making, and reporting data without re-testing will be presented along with hands-on problems and through interactive discussions. In addition, the attendees will learn about the legal necessity for implementing this standard when the DNA results are exculpatory to avoid contributing to a Brady violation.

Impact Statement: This presentation will impact the forensic science community by providing laboratory personnel, attorneys, and judges critical information regarding the responsibility of evaluating DNA data when a control has failed or a contamination event has been detected, especially when the DNA results may be exculpatory for an individual. The specific requirements in this Standard for: (1) the laboratory protocols for evaluating, interpreting and comparing data associated with failed controls and contamination events; (2) assessment of the risks of re-testing vs. not re-testing; (3) documentation; and (4) the reporting of the event, and the associated data and conclusions will be discussed along with considerations for successful implementation in the laboratory. Additional discussions will include the effective communication of the data, conclusions, and events in the criminal justice system through conversations, trainings, and testimony.

Target Audience: Criminalistics, Jurisprudence

Knowledge Level: Basic

WORKSHOPS

W24 **ANSI/ASB Standard 175—Standard for Interpreting, Comparing, and Reporting DNA Test Results Associated With Failed Controls and Contamination Events: Understanding, Implementation, and Legal Issues**

Chair:
Charlotte Word, PhD
Consultant
North Chesterfield, VA

Co-Chair:
Virginia Barron, JD
Hennepin County Public Defender
Birkholz Law
Westbrook, MN

Presenter:
Tabitha Bandy, MS
BODE Technology
Old Hickory, KY

Program:

- 1:00 pm – 1:15 pm **Introduction**
Charlotte Word, PhD
- 1:15 pm – 1:30 pm **Legal Issues—Evidence Retention vs. Consumption, *Brady***
Virginia Barron, JD
- 1:30 pm – 2:45 pm **Standards 175—History, Requirements, Implementation, and Related Standards**
Tabitha Bandy, MS; Charlotte Word, PhD
- 2:45 pm – 3:00 pm **BREAK**
- 3:00 pm – 3:30 pm **Standard 175—Requirements, Implementation and Related Standards (cont.)**
Tabitha Bandy, MS; Charlotte Word, PhD
- 3:30 pm – 3:45 pm **Presentation to Attorneys and Testimony**
Tabitha Bandy, MS; Virginia Barron, JD; Charlotte Word, PhD
- 3:45 pm – 4:50 pm **Problem Sets and Discussion**
Tabitha Bandy, MS; Virginia Barron, JD; Charlotte Word, PhD
- 4:50 pm – 5:00 pm **Discussion and Wrap-Up**
Tabitha Bandy, MS; Virginia Barron, JD; Charlotte Word, PhD

WORKSHOPS

Pre-Registration Required—\$150

W25 Death of an “Expert” Witness: Discrediting Document Examiners Who Violate Acknowledged Standards or Binding Laboratory Policies or Who Express Handwriting Opinions With Low Levels of Certitude

Tuesday, February 18, 2025

1:00 pm – 5:00 pm

CE Hours: 3.5

Program Description: A distinguished faculty comprising two highly credentialed forensic document examiners, one of the nation’s leading evidence scholars, and a recently retired appellate court judge will provide attendees with a clear understanding of the problems facing document examiners who violate acknowledged industry standards or binding laboratory policies and the reliability concerns associated with handwriting opinions expressed with a low level of certitude. Attendees will be provided with actual case histories illustrating how handwriting opinions expressed as “indications” or “probable” are challenged and discredited. Attendees will also learn about the reliability issues gatekeepers must address when deciding whether or not to admit handwriting opinions expressed with a low level of certitude.

Educational Objectives: After attending this workshop, the attendees will have a better understanding of how lawyers can discredit an expert witness who failed to adhere to an acknowledged industry standard or binding laboratory policy. Attendees will also learn why handwriting opinions expressed with low levels of certitude such as “indications” or “probable” can easily be impeached and discredited and why it would be better if such opinions were excluded by gatekeepers.

Impact Statement: This presentation will impact the forensic science community by providing document examiners and forensic scientists in various forensic pattern-matching disciplines with a clear understanding of the basic unreliability of expert opinions expressed with a low level of certitude.

Target Audience: Criminalistics, General, Jurisprudence, Psychiatry & Behavioral Science, Questioned Documents

Knowledge Level: Basic

Chair:

Andrew Sulner, JD
Forensic Document Examinations
LLC/Sulner Law Offices
New York, NY

Co-Chair:

Linton Mohammed, PhD
Forensic Science Consultants, Inc.
Poway, CA

Presenters:

Roderick T. Kennedy, (ret.), JD
New Mexico Court of Appeals
Los Ranchos, NM

Michael Risinger, JD
Seton Hall University
Kearny, NJ

WORKSHOPS

W25 Death of an “Expert” Witness: Discrediting Document Examiners Who Violate Acknowledged Standards or Binding Laboratory Policies or Who Express Handwriting Opinions With Low Levels of Certitude

Program:

- 1:00 pm – 1:15 pm **Welcome and Introduction to a Novel Twist in Questioned Document Litigation**
Andrew Sulner, JD
- 1:15 pm – 1:45 pm **A Slam Dunk Case of Genuine Signatures Contested by an Unfounded Probable Forgery Opinion Offered by a Self-Trained Pseudo Expert**
Michael Risinger, JD; Linton Mohammed, PhD
- 1:45 pm – 2:45 pm **The Novel Twist That Resulted in Discrediting a Self-Trained Pseudo Expert’s Unfounded Probable Forgery Opinion at the Deposition Stage of a California Case: Employing Special Trial Counsel Who Is Also a Board-Certified Forensic Document Examiner**
Andrew Sulner, JD
- 2:45 pm – 3:00 pm **BREAK**
- 3:00 pm – 3:20 pm **How the FBI Has Failed to Enforce Its Own Explicit Standards Applicable to Handwriting Comparison and Improperly Restricts the Use of Blind Verification in Handwriting Cases**
Michael Risinger, JD
- 3:20 pm – 3:40 pm **The General Unreliability of Opinions of Forgery Expressed With Low Levels of Certitude Such as “Indications” or “Probable”**
Andrew Sulner, JD
- 3:40 pm – 4:00 pm **“Low Level” Expressions of Certitude, Both in Reports and Trial Testimony, Should Trigger Skepticism in Gatekeepers**
Roderick T. Kennedy, (ret.), JD
- 4:00 pm – 5:00 pm **Panel Discussion/Questions and Answers**
All Presenters

WORKSHOPS

Pre-Registration Required—\$150

W26 Expanding the Forensic Professional’s Toolbox: New Technological Resources for the Evaluation of Evidence

Tuesday, February 18, 2025

1:00 pm – 5:00 pm

CE Hours: 3.75

Program Description: Forensic practice changes at a pace that varies by discipline. Sophisticated instrumentation and computational tools have been used by forensic DNA examiners for decades, but introduction of new methods has been slower in pattern comparison disciplines, probably because comparing images is complex. Yet, examiners in these disciplines are facing frequent challenges when relying on expert opinion alone. Research groups, including CSAFE, have, in the past decade, tried to address the lack of data-based methods for the forensic analysis of patterns. These groups have demonstrated that it is possible to quantify similarity between two images, even when one is degraded. While several new methods have been proposed in the scholarly literature, the gap between research and practice has not been breached, except by a few private companies that develop proprietary tools. To encourage adoption of new methodology, CSAFE researchers have created tools that enable forensic practitioners to implement quantitative methods for the evaluation of firearm, footwear, and handwriting evidence. During the workshop, participants will learn about and use three applications that are (or soon will be) ready for testing on real case work. These applications are all in the public domain and can be used at no cost. Participants will be asked to bring their own laptop and will get access to software and example data before the meeting. In addition to hands-on learning, the workshop will include lecture-style presentations to ensure that users of the applications have a reasonable understanding of the science and data that underpin the apps.

Educational Objectives: Individuals who participate in the workshop will learn about new computational tools developed by the Center for Statistics and Applications in Forensic Evidence (CSAFE) researchers in collaboration with the National Institute of Standards and Technology (NIST) scientists. The tools are designed to answer forensic questions of interest in several pattern comparison disciplines and enable practitioners to provide a probabilistic assessment of the evidence. At least in the near future, the new resources are meant to be used alongside traditional examination methods and serve to either confirm categorical conclusions or call attention to potential issues with those conclusions.

Impact Statement: Imaging, computational, and other tools are already used by forensic practitioners to analyze some types of evidence (e.g., DNA), but their introduction has been slower in the pattern comparison disciplines. Once they are more extensively tested and validated, the tools developed by CSAFE will empower practitioners to carry out quantitative analysis and interpretation of evidence and reinforce reporting and testimony with data-based results. The tools we will introduce at the workshop are free and placed in the public domain to maximize access and transparency.

Target Audience: Criminalistics, Engineering & Applied Sciences, General, Jurisprudence, Questioned Documents

Chair:

Alicia L. Carriquiry, PhD
Iowa State University
Ames, IA

Co-Chair:

Michael J. Salyards, PhD
CSAFE
Tucson, AZ

Presenters:

Heike Hofmann, PhD
University of Nebraska-Lincoln
Lincoln, NE

Steven Lund, PhD

National Institute of Standards and Technology
Gaithersburg, MD

WORKSHOPS

W26 Expanding the Forensic Professional's Toolbox: New Technological Resources for the Evaluation of Evidence

Program:

- 1:00 pm – 2:00 pm **BulletR: An Application for the Comparison of Bullets**
Heike Hofmann, PhD
- 2:00 pm – 2:15 pm **Questions and Answers**
Michael J. Salyards, PhD
- 2:15 pm – 3:15 pm **ShoeComp and ShoeAnalyzr: Applications to Align and Compare Footwear Impressions**
Steven Lund, PhD; Alicia L. Carriquiry, PhD
- 3:15 pm – 3:30 pm **Questions and Answers**
Michael J. Salyards, PhD
- 3:30 pm – 3:45 pm **BREAK**
- 3:45 pm – 4:45 pm **Handwriter: An Application for the Evaluation of Handwritten Evidence**
Alicia L. Carriquiry, PhD
- 4:45 pm – 5:00 pm **Questions and Answers**
Michael J. Salyards, PhD

WORKSHOPS

Pre-Registration Required—\$150

W27 Mind Games and Machines: Navigating Cognitive Biases in Forensic Technologies

Tuesday, February 18, 2025

1:00 pm – 5:00 pm

CE Hours: 3.25

Program Description: Explore the critical intersection of cognitive bias and forensic technology in this engaging and interactive presentation. We'll start by illustrating cognitive biases through everyday life examples, helping you recognize these common mental shortcuts and their impact on our daily decisions.

Cognitive biases, while often beneficial for quick decision-making, can introduce significant errors, especially in high-stakes environments like forensic science. We'll review a range of biases — such as the halo effect, confirmation bias, and anchoring bias — and examine their effects on various stakeholders, including forensic professionals, law enforcement, jurors, and the public.

Next, we'll dive into the world of forensic technology, specifically exploring the fundamentals of AI and machine learning. We'll clarify what these technologies are, how they have evolved in recent decades, address misconceptions about their capabilities, and discuss challenges associated with their misuse.

Interactive segments will include case studies from past high-profile forensic cases, where we'll identify and analyze biases at play. This hands-on approach will help you see how biases can influence forensic outcomes and public perception.

Experts will present strategies to counteract cognitive biases related to forensic technology, offering practical insights into improving accuracy and fairness. We'll conclude with a Q&A session using live polls to engage with audience thoughts on the implications of AI in forensic science and beyond.

Join us to gain a deeper understanding of how cognitive biases interact with forensic technology and discover actionable strategies to enhance justice and accuracy in forensic practices.

Educational Objectives: After attending this workshop, participants will be able to:

- **Describe Cognitive Biases:** Participants will be able to recognize various cognitive biases, such as confirmation bias and anchoring bias, and understand how these biases influence decision-making processes within forensic science and related fields.
- **Analyze the Impact of Technology on Biases:** Participants will gain insights into how forensic technologies like Artificial Intelligence (AI) and machine learning interact with and potentially exacerbate cognitive biases. They will learn to evaluate the strengths and limitations of these technologies in mitigating or amplifying biases in forensic investigations.
- **Explain Strategies to Mitigate Bias:** Participants will acquire practical strategies and best practices for addressing and reducing cognitive biases in forensic settings. This includes applying lessons learned from case studies and expert presentations to improve decision-making accuracy and fairness in forensic technology applications.

Impact Statement: This workshop will enable participants to effectively navigate cognitive biases within forensic technologies, offering strategies to enhance the accuracy and fairness of technological applications. By understanding the interplay between human biases and tech innovations, attendees will be better equipped to leverage technology while mitigating its potential pitfalls.

Target Audience: Criminalistics, Digital & Multimedia Sciences, Engineering & Applied Sciences, Forensic Nursing Science, General, Jurisprudence, Psychiatry & Behavioral Science, Questioned Documents

Knowledge Level: Basic

WORKSHOPS

W27 Mind Games and Machines: Navigating Cognitive Biases in Forensic Technologies

Chair:

Michelle Patch, PhD
Johns Hopkins University
School of Nursing
Reisterstown, MD

Co-Chair:

Joyce P. Williams, PhD
Stevenson University
Randallstown, MD

Presenters:

Victor G. Petreca, PhD, DNP
Boston College/MA DMH
Chester Hill, MA

Tamar Rodney, PhD
Johns Hopkins University
School of Nursing
Baltimore, MD

Program:

- 1:00 pm – 1:05 pm **Kickoff: Setting the Stage for Bias and Technology (Welcome/Introductions)**
Michelle Patch, PhD
- 1:05 pm – 1:55 pm **Mindset Matters: An Introduction to Cognitive Bias**
Tamar Rodney, PhD
- 1:55 pm – 2:00 pm **Quick Stretch: Bridging to the Next Insight**
Joyce P. Williams, PhD
- 2:00 pm – 2:50 pm **Tech Talk: Navigating Forensic Innovations (Overview of Forensic-Related Technologies)**
Michael J. Salyards, PhD
- 2:50 pm – 3:05 pm **Refuel and Reset: Preparing for Bias Exploration**
Michelle Patch, PhD
- 3:05 pm – 3:55 pm **Bias Unveiled: Analyzing Real-World Cases**
Tamar Rodney, PhD; Michelle Patch, PhD
- 3:55 pm – 4:00 pm **Stretch and Refresh: Ready for Bias Solutions**
Joyce P. Williams, PhD
- 4:00 pm – 4:45 pm **Bias Busters: Strategies for Mitigating Technology-Related Bias**
Victor G. Petreca, PhD, DNP; Joyce P. Williams, PhD
- 4:45 pm – 5:00 pm **Wrap-Up: Insights and Actionable Takeawayss**
All Presenters

NATIONAL INSTITUTE OF JUSTICE

Forensic Science Research and Development Symposium

The National Institute of Justice (NIJ) Forensic Science Research and Development (R&D) Symposium is an open meeting delivered through NIJ's Forensic Technology Center of Excellence (FTCOE) where attendees can learn about NIJ-funded research across a variety of forensic science areas. You can register to attend the Symposium in person or virtually; however, American Academy of Forensic Sciences (AAFS) conference registration is not necessary to attend. Feel free to stop by to listen to specific presentations and view posters or stay all day and learn about the diverse NIJ forensic science R&D portfolio.

More details and registration information can be found here:
<https://forensiccoe.org/event-2025-research-development-symposium/>

Tentative Agenda—Tuesday, February 18, 2025

The podium presentations will take place from 8:30 am EST to 5:00 pm EST at the Baltimore Convention Center. A Q&A session for each presenter will directly follow their presentation. Please note that all times are listed in Eastern Standard Time (EST).

- 8:30 am – 8:40 am **Welcome and Opening Remarks**
Lucas Zarwell, Office of Investigative and Forensic Sciences, National Institute of Justice
- Session I – Trace Evidence/Fire Investigation/Physics and Pattern**
Moderated by NIJ Program Manager, Gregory Dutton
- 8:40 am – 9:05 am **Assessment of the Added Value of New Quantitative Methodologies for the Analysis of Surface Soils in Forensic Soil Comparisons**
Kelly Meiklejohn, North Carolina State University
- 9:05 am – 9:30 am **The Influence of Soils and Chlorinated and Non-Chlorinated Agitated Water on Surface-Enhanced Raman Spectroscopic Analysis of Artificial Dyes on Hair**
Dmitry Kurouski, Texas A&M University
- 9:30 am – 9:55 am **Experimental Study of Heat Transfer and Fire Damage Patterns on Walls for Fire Model Validation**
Matthew DiDomizio, Fire Safety Research Institute
- 9:55 am – 10:20 am **Evaluation of the Occurrence and Associative Value of Non-Identifiable Fingermarks on Unfired Ammunition in Handguns for Evidence Supporting Proof of Criminal Possession, Use, and Intent**
David Stoney, Stoney Forensic, Inc.
- 10:20 am – 10:35 am **BREAK**
- Session II – Forensic Anthropology and Forensic Pathology**
Moderated by NIJ Program Manager, Rachel Wendt
- 10:35 am – 11:00 am **Optimizing Bruise Detection in Forensic Imaging: A Comparative Analysis of Object Detection Models**
Katherine Scafide, George Mason University
- 11:00 am – 11:25 am **Using Artificial Intelligence: Deep Learning for Human Decomposition Staging**
Audris Mockus, University of Tennessee, Knoxville
- 11:25 am – 11:50 am **Deep Learning Empowers Fine-Grained Population Affinity Estimation with Craniometric Data**
Xiaoming Liu, University of South Florida
- 11:50 am – 12:15 pm **Is Decedent Residual Odor Detectable by Human Remains Detection (HRD) Canines and Analytical Chemistry?**
Dawnie Steadman, University of Tennessee, Knoxville

NATIONAL INSTITUTE OF JUSTICE

12:15 pm – 1:25 pm **LUNCH BREAK – On Your Own**

Session III – Seized Drugs and Toxicology

Moderated by NIJ Program Manager, Megan Chambers

1:25 pm – 1:50 pm **Identifying High-Quality Aptamers for Drug Detection**

Alexandra Bryant, North Carolina State University

1:50 pm – 2:15 pm **Caught Green-Handed: The Detection of Potential Cannabis-Use Biomarkers in Fingerprint Residues Using Mass Spectrometry**

Rabi A. Musah, Louisiana State University

2:15 pm – 2:40 pm **Chromatographic Interferences That Can Inflate the Levels of Δ^9 -THC in Cannabis Samples**

Walter B. Wilson, National Institute of Standards and Technology

2:40 pm – 3:05 pm **Evaluation of a Quantitative Analysis Method for Tetrahydrocannabinol Isomers in Biological Matrices**

Rebecca Wagner, Virginia Department of Forensic Science

3:05 pm – 3:20 pm **BREAK**

Session IV – Forensic Biology/DNA

Moderated by NIJ Program Manager, Tiffany Layne

3:20 pm – 3:45 pm **Trace DNA in Activity-Level Propositions**

Ashley Hall, University of California, Davis and Ray Wickenheiser, Ray Wickenheiser Forensic Consulting

3:45 pm – 4:10 pm **A Comparison of Small-Amplicon Mitogenome Enrichment Methods for Massively Parallel Sequencing of Low- and High-Quality Sample Types**

Courtney Cavagnino, Armed Forces DNA Identification Laboratory

4:10 pm – 4:35 pm **Fragmentomics of Hair DNA**

Samuel Sacco, University of California, Santa Cruz

4:35 pm – 5:00 pm **Adaptive Sampling for the Simultaneous Analysis of STRs, SNPs, and mtDNA in Human Remains Identification**

Katherine E. McBroom-Henson, University of North Texas Health Science Center at Fort Worth

NATIONAL INSTITUTE OF JUSTICE

Poster Session

The poster presentations will be from 5:00 p.m. EST to 6:30 p.m. EST in Meeting Rooms 307/308 at the Baltimore Convention Center. Self-guided tours will begin at 12:00 p.m. EST, and the meeting room doors will remain open until 7:00 p.m. EST. Posters indicated with an asterisk (*) will be available virtually only. More details and information can be found here:

<https://forensiccoe.org/event-2025-research-development-symposium/> Poster Presentations

Quantitative Matching of Forensic Evidence Fragments of Metals, Ceramics and Plastics Using Fracture Surface Topography and Statistical Learning

Ashraf Bastawros, Iowa State University

Application of Particle-Correlated Raman Spectroscopy (PCRS) for the Forensic Examination of Soils

Brooke W. Kammrath, University of New Haven and Henry C. Lee Institute of Forensic Science

Using Ultrasonic Pulse Velocity to Assess Fire Damage in Drywall

Maria Binte Mannan, University of Maryland

Advancing the Understanding of 3D Imaging for Firearms Identification*

Melissa Nally, Houston Forensic Science Center

Assessing the Reliability of Fire Pattern Indicators in Wildland Fire Investigations: A Field Study*

Raphael Ogabi, Worcester Polytechnic Institute

Analysis of Oil-Based Ignitable Liquid Residues on Wood and Fabric Debris by GC-MS and DART-MS

Mengliang Zhang, Ohio University

Interoperability of Firearm Toolmark 3D Topography Measurements

Xiaoyu Alan Zheng, National Institute of Standards and Technology

Improving and Evaluating Computed Tomography and Magnetic Resonance Imaging in the Investigation of Fatalities Involving Suspected Head Trauma

Natalie Adolphi, New Mexico Office of the Medical Investigator

Skeletal Trauma in Forensic Anthropology: Improving the Accuracy of Trauma Analysis and Expert Testimony

Amanda Agnew, The Ohio State University

Pre-Grouping of Commingled Human Skeletal Remains by Elemental Analysis

Matthieu Baudalet and Kristen Livingston, University of Central Florida

Initial Assessments of Relic DNA Removal from Host- and Environmentally Sourced Microbiome Evidence

Zachary Burcham and Emily Cantrell, University of Tennessee, Knoxville

Eggs-ploring the Volatiles Profiles of *L. sericata* Eggs for Postmortem Interval Determination

Alexa Figueroa, Louisiana State University

Improving Identification of Unknown American Indians and Hispanic/Latinx Americans

Kelly Kamnikar, The University of New Mexico

Exploring the Potential of Amino Acid δ^{2H} Analysis as a Forensic Tool to Identify Region of Origin

Christy J. Mancuso, The University of New Mexico

GIS Application for Building a Nationally Representative Forensic Taphonomy Database

Katherine Weisensee, Clemson University

NATIONAL INSTITUTE OF JUSTICE

What a Trip! Investigating the Stability of Psilocybin and Psilocin Infused within Complex Edible Matrices

Benedetta Garosi, Louisiana State University

Detecting Fentanyl Analogs in Counterfeit Pharmaceuticals by Surface-Enhanced Raman Spectrometry

Bruce McCord, Florida International University

Chiral Separation and Quantification of Methamphetamine in Whole Blood

William Naviaux, University of Wisconsin–Madison

Multimodal Raman Spectroscopy and Mass Spectrometry Analysis of Synthetic Drugs in Blood Plasma Utilizing Nanoparticle-Decorated Porous Substrates

Rajesh Sardar, Indiana University Indianapolis

Potency Testing of Synthetic THC Isomer-Infused Edibles Using Ultra-High-Performance Liquid Chromatography Diode Array Detector with Optional Electrospray Ionization Time-of-Flight Mass Spectrometry

Liguo Song, Western Illinois University

Enhancing Field Detection of Fentanyl: A Novel Pre-Concentrator for Ion Mobility Spectrometry Using Silicon Nanowires*

Galpayage Dona Thouli Lochana Jayawardana, Florida International University

Navigating the Unknown: A Comparative Analysis of Targeted and Non-Targeted Approaches for Detecting New Psychoactive Substances in Human Matrices

Akshita Verma, Florida International University

Rapid Response to Novel Psychoactive Substances (NPS) Identified in U.S. Recreational Drug Markets

Sara Walton and Alex Krotulski, The Center for Forensic Science Research & Education

Transfer, Persistence and DNA Source Attribution of Trace Biological Material in Digital Penetration Assault Cases

Erin Hanson, University of Central Florida

Recovery of Multiple Analytes from Biological Samples for Forensic Application

Arati Iyengar, West Virginia University

Applications of the Genital Microbiome in Detecting Sexual Contact

Andrea Ramirez Torres, Florida International University

Assessment of Promega's PowerSeq 46GY Through Testing of the Standard and the Micro Flow Cells

Elisa Wurmbach, New York City Office of Chief Medical Examiner

ANTHROPOLOGY

Thursday

Poster Session

-
- | | | |
|--------------------|------------|--|
| 11:30 am – 1:00 pm | A1 | Epi and Histo: Partners in Improving Age-At-Death Estimation
<i>Victoria M Dominguez, PhD*</i> ; <i>Sara C. Zapico, PhD*</i> |
| 11:30 am – 1:00 pm | A2 | Age Estimation Through Osteon Histomorphometry: An Analysis of Autopsy Samples
<i>Enrica Macorano, MD*</i> ; <i>Raffaella Minella, MS</i> ; <i>Giada Sciàdi Steiger, MS</i> ;
<i>Francesco Introna, MD, PhD</i> |
| 11:30 am – 1:00 pm | A4 | Age Estimation of Young Adults in the Italian Population: An Application of Schmelting's Method Using Conventional Radiography
<i>Giorgio De Donno, MD*</i> ; <i>Gianfrancesco Di Nunno, MD</i> ; <i>Alessandra Petruzzellis, MD</i> ;
<i>Stefania Galizia, MD</i> ; <i>Gianluca Gravili, MD</i> ; <i>Gianluca Gravili, MD</i> ; <i>Lucrezia Ardito, MD</i> ;
<i>Amato Antonio Stabile Ianora, PhD</i> ; <i>Arnaldo Scardapane, PhD</i> ; <i>Antonio De Donno, PhD</i> |
| 11:30 am – 1:00 pm | A5 | Estimating Age-at-Death in Adults Using the Calce Method
<i>Gloria Eddy, BA*</i> |
| 11:30 am – 1:00 pm | A6 | Exploring the Role of Early Life Stress in the Accuracy of Age-at-Death Estimation Among Adults
<i>Caroline Znachko, MA*</i> ; <i>Taylor Walkup, MA</i> ; <i>Derek Boyd, PhD</i>
(FSF Emerging Forensic Scientist Award Poster Presentation) |
| 11:30 am – 1:00 pm | A7 | A Validation Study of Bergs' Method for Aging the Pubic Symphysis
<i>Amanda Schultz, BA*</i> ; <i>Erin Kimmerle, PhD</i> |
| 11:30 am – 1:00 pm | A8 | Age Estimation of the Pubic Symphysis From 3D-Printed Proxies
<i>Rhys Williams, PhD*</i> ; <i>Phoebe Baker, MS</i> ; <i>Rebecca Strong, PhD</i> |
| 11:30 am – 1:00 pm | A9 | Observer Confidence Versus Accuracy: Analysis of 3D-Printed Pubic Symphyses
<i>Rhys Williams, PhD*</i> ; <i>Phoebe Baker, MS</i> ; <i>Rebecca Strong, PhD</i> |
| 11:30 am – 1:00 pm | A10 | Sex Estimation Using Metrics of the Innominate: A Validation of the DSP2 Method
<i>Alexandra Klales, PhD*</i> ; <i>Kate Lesciotto, PhD</i> |
| 11:30 am – 1:00 pm | A11 | The Effect of Mental Eminence Trait Scores on Sex Estimation Accuracy Rates Using MorphoPASSE
<i>Kate Lesciotto, PhD*</i> ; <i>Arikka Carroll</i> ; <i>Alexandra Klales, PhD</i> |
| 11:30 am – 1:00 pm | A12 | An Assessment of MorphoPASSE Software for Undergraduate Forensic Anthropology Education: Integrating Sex Estimation Technology Into the Classroom
<i>Elauna Hicks, BS*</i> ; <i>Shannon Hodge, PhD</i> |
| 11:30 am – 1:00 pm | A13 | Assigned-Sex-at-Birth Estimation Using a 3D-Printed Replica of the Os Coxa: A Case Study of a Transgender Woman Who Used Gender-Affirming Hormone Therapy During Life
<i>Taylor M. Flaherty, MCS*</i> ; <i>Jennifer Byrnes, PhD</i>
(FSF Emerging Forensic Scientist Award Poster Presentation) |
| 11:30 am – 1:00 pm | A14 | A Geometric Morphometric Examination of Possible Patterns of Sexual Trait Expression Across Five Skeletal Elements
<i>Kaleigh Best, PhD*</i> |

ANTHROPOLOGY

- 11:30 am – 1:00 pm **A15** **A Test of the (hu)MANid Analytical Program**
*Jordan Karsten, PhD**; *Christina Nicholas, PhD*; *Hayley Hintz, BS*
- 11:30 am – 1:00 pm **A16** **A Test of the (hu)MANid Program on Edentulous Mandibles**
*Natalie Wise, MA**; *Erin Kimmerle, PhD*; *Gregory Berg, PhD*
- 11:30 am – 1:00 pm **A17** **Evaluating a Greek-Cypriot Sample in FORDISC 3.1**
*Shivani Sanger, MS**; *Joe Hefner, PhD*; *Xenia-Paula Kyriakou, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A18** **Introducing FoRDent: A New Tool for Estimating Population Affinity From Dental Morphology**
*Heather Edgar, PhD**; *Joe Hefner, PhD*; *Ron Richardson, MS*
- 11:30 am – 1:00 pm **A19** **Digital Archives: An Investigation of Skeletal (In)completeness Using IRIS**
*Hailey Scacciaferro, BS**; *Savanna Agilar, MS*; *Micki Besse, MS*; *Heather Walsh-Haney, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A20** **Assessing the Applicability of Subadult Stature Estimation Methods for Japanese Subadults**
*Amariah Trevino, BS**; *Elaine Chu, PhD*
- 11:30 am – 1:00 pm **A21** **CT Scan-Based Cranial Anthropometry for Stature Estimation: A Comparative Analysis Between Base of Skull and Front of Skull Parameters in a South Indian Population**
*Siddhartha Das, MD**; *Kirthika Ravi, MD*; *Dr Ambika Patra, MD*; *Deepak Barathi, MD*; *Harichandrakumar Kottayen Thazhath, PhD*
- 11:30 am – 1:00 pm **A22** **How Many Vertebrae Should Be Present to Estimate the Height of the Total Vertebral Column With Accuracy?**
*Yangseung Jeong, PhD**; *Hyunwoo Jung, PhD*
- 11:30 am – 1:00 pm **A23** **The Correlation of the Dimensions of Hands and Feet With Height in an Indigenous Population of the Tribal District of Himachal Pradesh, India**
*Yatiraj Singi, MD**; *Dipen Dabhi, MD*
- 11:30 am – 1:00 pm **A24** **The Effects of Tibial Nutrient Foramen Location on Biological Profile Construction**
*Olivia Messenger, BA**; *Krista Latham, PhD*; *Stephen Nawrocki, PhD*
- 11:30 am – 1:00 pm **A25** **A Glimpse Through the Veil of Lost Identities: Identification Practices and Outcomes in Greece**
*Despoina Flouri, MD**; *Sophia Mavroudas, PhD*; *Christina Karydi, MCS*; *Antonios Papadomanolakis, MD, PhD*; *Elena Kranioti, MD, PhD*
- 11:30 am – 1:00 pm **A26** **Applying Postmortem Fingerprinting Into Disaster Victim Identification in Maverick County, Texas**
*Victoria Swenson, PhD**; *Bryan Johnson, MSFS*; *Courtney Siegert, PhD*; *Chloe McDaneld, MA*; *Ivanna Robledo, MA*; *Molly Kaplan, MA*; *Molly Scott*; *Christopher McMillan*; *Veronica Flores-Guillen, BS*; *Kate Spradley, PhD*
- 11:30 am – 1:00 pm **A27** **Unveiling the Role of Tattoos as Ink Trails in Forensic Anthropological Identifications: Exemplified From a Survey of a Northwest Indian Population**
*Jagmahender Singh Sehrawat, PhD**; *Shubham Thakur, MS*; *Tamanna Kumari*
- 11:30 am – 1:00 pm **A28** **Using Images of the Ear for Postmortem Human Identification**
*Jane Harris, PhD**; *Aiden Gilbert*

ANTHROPOLOGY

- 11:30 am – 1:00 pm **A29** **An Intersectional Approach to Developing a Prediction Model for Adult Missing Persons Off a Major United States Corridor in Idaho Using Novel Computational Techniques and Multidisciplinary Data**
*Kirsten Mink, PhD**; *Donna Delparte, PhD*; *Miles Rhoads, BS*; *Kyle Paulekas, MS*
- 11:30 am – 1:00 pm **A30** **Enhancing Forensic Human Identification in Emergencies and Disasters: Leveraging Technology for Improved Efficiency, Cost Reduction, and Ethical Practices**
*Megan Bassendale, MS**
- 11:30 am – 1:00 pm **A31** **Understanding the Role of CODIS and Familial DNA in Positive Human Identification for the Louisiana Repository for Unidentified and Missing Persons**
*Anthony Lanfranchi, MS**; *Teresa Wilson, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A32** **Forensic Age Progression as a Support for the Search for Missing Persons: A Test of the Accuracy of the Aging Method**
*Laura Donato**; *Rossana Cecchi, MD, PhD*; *Luigi Tonino Marsella*;
Michele Treglia, MD, PhD; *Valentina Bugelli, MD, PhD*; *Douglas Ubelaker, PhD*
- 11:30 am – 1:00 pm **A33** **Vertebral Bone Density Variations in Scoliotic vs. Non-Scoliotic Juveniles and Their Implications for Schmorl’s Node Development: A CT-Based Analysis Using the New Mexico Decedent Image Database**
*Ellen Shakeshaft, MS**; *Matteo Borrini, PhD*; *Constantine Eliopoulos, PhD*
- 11:30 am – 1:00 pm **A34** **Vertebral Variation in Forensic Anthropology Casework**
*Andrew Seidel, PhD**; *Kiana Miller, BS*
- 11:30 am – 1:00 pm **A35** **The Ontogenetic Development of the Glabella and Its Association With Maturation of the Humeral Proximal Epiphysis in Accurate Subadult Sex Estimation**
*Stephanie Cole, PhD**; *Marin Pilloud, PhD*; *Kyra Stull, PhD*
- 11:30 am – 1:00 pm **A36** **Intra-Observer and Inter-Device Error in Osteometric Data**
*Maggie Klemm, MA**; *Dakota Taylor, MA*; *William Belcher, PhD*
- 11:30 am – 1:00 pm **A37** **Morphological Patterns of Corresponding Atlanto-Occipital Joint Surfaces: Potential Applications for Sorting Commingled Human Remains**
*Janet Finlayson, PhD**
- 11:30 am – 1:00 pm **A38** **Two Instances of Unusual Non-Human Remains Encountered in Routine Medicolegal Significance Casework**
*Nicholas Passalacqua, PhD**; *MariaTeresa Tersigni-Tarrant, PhD*
- 11:30 am – 1:00 pm **A39** **An Analysis of Non-Human Skeletal Remains in the Digital Age: An Examination of Temporal Trends (2014–2024) and Taxonomic Diversity in Northern California**
*Kendall Gehring, BS**; *Keilani Adams, BA*; *Jazmin Borryayo, BA*; *Samantha Robinson, BS*;
Amber Plemons, PhD; *Colleen Milligan, PhD*; *Ashley Kendall, PhD*

ANTHROPOLOGY

Thursday—Session I

Isotope Analysis and Chemical Considerations in Forensic Anthropology

- 8:15 am – 8:30 am **A40** **A Multi-Isotope Approach for Reconstructing Residence Patterns of Massacre Victims of the Indian Uprising in Ajnala, Amritsar, India**
*Jagmahender Singh Sehrawat, PhD**; *Eric Bartelink, PhD*
- 8:30 am – 8:45 am **A41** **A Stable Foundation for the Use of Tooth Enamel Oxygen Isotopes in Human Identification**
*Gabriel Bowen, PhD**; *Chris Stantis, PhD*; *Kirsten Verostick, PhD*;
Stephannie Covarrubias, MPH; *Lesley Chesson, MS*
- 8:45 am – 9:00 am **A42** **Intra-Individual Isotopic Variation Within Teeth: Refining Forensic Applications Using Isotopes**
*Kirsten Verostick, PhD**; *Chris Stantis, PhD*; *Gabriel Bowen, PhD*
- 9:00 am – 9:15 am **A43** **The Impact of Chemical Maceration on $\delta^{13}\text{C}$, $\delta^{15}\text{N}$, and $\delta^{18}\text{O}$ Values in Bone Collagen and Bioapatite**
*Julianne Sarancha, MS**; *Gwyneth Gordon, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 9:15 am – 9:30 am **A44** **The Role of Cadaver Decomposition Islands on Soil Chemistry During Carrion Decomposition: Eco-Forensic Implications in a Southern Nigerian Ecosystem**
*Darlington Onyejike, PhD**; *Oghenefego Adheke, PhD*; *Loveday Oghenemavwe, PhD*;
Bassey Udom, PhD; *Josiah Hart, PhD*
- 9:30 am – 9:45 am **A45** **Reassessing Forensic Significance With Radiocarbon Dating at the Oklahoma Office of the Chief Medical Examiner: A Cautionary Tale**
*Sara Getz, PhD**; *Carlos Zambrano, PhD*; *Angela Berg, MA*
- 9:45 am – 10:00 am **BREAK**

Behavior and Culture in Forensic Anthropology

- 10:00 am – 10:15 am **A46** **The Biocultural Dynamics of Postcranial Skeletal Variation: A Focus on Ontogeny, Socioeconomic Status, and Population History**
*Micayla Spiros, PhD**
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 10:15 am – 10:30 am **A47** **Antemortem Tooth Loss as a Biomarker of Structural Vulnerability in a New Mexico Forensic Sample**
*Allysha Winburn, PhD**
- 10:30 am – 10:45 am **A48** **Mapping Oahu's Cold Cases: Evaluating the Role of Structural Barriers in Missing and Unidentified Cases Through Geospatial Analysis**
*Ariel Gruenthal-Rankin, PhD**; *Kalia Lalley, BA*; *Nikita Sookla, BA*; *Kirsten Vacca, PhD*
- 10:45 am – 11:00 am **A49** **The Impact of Substance Misuse Behaviors on Skeletal Physiology and Premature Skeletal Senescence in an Autopsy Population**
*Christine Pink, PhD**; *Prentiss Jones, PhD*

ANTHROPOLOGY

11:00 am – 11:15 am	A50	Establishing a Skeletal Atlas of Elder Abuse: A Bayesian Examination of the Complex Relationships Between Age, Sex, and the Probability of Abuse or Accident as Related to Skeletal Trauma <i>Jacob Harris, PhD*</i> ; <i>Kaitlyn Fulp, MA</i> ; <i>Jane Buikstra, PhD</i> ; <i>Laura Fulginiti, PhD</i> ; <i>Katelyn Bolhofner, PhD</i> ; <i>Katelyn Bolhofner, PhD</i>
11:15 am – 11:30 am	A51	The “Missing Migrant”: Schrodinger’s Cat of Legal Status and Applicable Frameworks <i>Skylar Joseph, MS*</i>
11:30 am – 1:00 pm		BREAK

Anthropology Special Symposium: Exploring the Black Box: Methodological Applications of AI in Forensic Anthropology

1:00 pm – 1:15 pm	A52	A Brief Introduction to Artificial Intelligence in Forensic Anthropology: Core Concepts and Ideas <i>Thomas A. Delgado, MA*</i> ; <i>Taylor Flaherty, MS</i> ; <i>Samantha Blatt, PhD</i>
1:15 pm – 1:30 pm	A53	3D Biological Profile: The Application of 3D (STL) Models of Skeletal Remains to Assist With Human Identification <i>Madeline Robles, PhD*</i> ; <i>Sherry Nakhaeizadeh, PhD</i> ; <i>Carolyn Rando, PhD</i> ; <i>Ruth Morgan, DPhil</i>
1:30 pm – 1:45 pm	A54	Using Artificial Intelligence to Automate Human Stage of Decay Identification <i>Anna-Maria Nau, PhD*</i> ; <i>Phillip Ditto, MA*</i> ; <i>Dawnie Steadman, PhD</i> ; <i>Audris Mockus, PhD</i>
1:45 pm – 2:00 pm	A55	Forensic Comparative Radiography Using Transformer-Based Neural Networks and Large Language Models <i>Carolyn Isaac, PhD*</i> ; <i>Redwan Sony, MS</i> ; <i>Alexis VanBaarle, MS</i> ; <i>Joe Hefner, PhD</i> ; <i>Todd Fenton, PhD</i> ; <i>Todd Fenton, PhD</i>
2:00 pm – 2:15 pm	A56	Applying Machine Learning Methods to Age Estimation in Forensic Anthropology—From Glass Box to Black Box <i>Martin Lo, PhD*</i> ; <i>Enrico Mariconti, PhD</i> ; <i>Sherry Nakhaeizadeh, PhD</i> ; <i>Ruth Morgan, DPhil</i>
2:15 pm – 2:30 pm	A57	The Potential Applications and Uses of Neural Radiance Fields (NeRF) and Gaussian Splats: Artificial Intelligence in Forensic Anthropology <i>Katharine Kolpan, PhD*</i> ; <i>Jeffrey Vadala, PhD</i>
2:30 pm – 2:45 pm	A58	Machine Learning and Artificial Intelligence in Forensic Anthropology: Ethical Considerations, Challenges, and Future Applications <i>Sherry Nakhaeizadeh, PhD*</i> ; <i>Micayla Spiros, PhD*</i>
2:45 pm – 3:15 pm		Discussion and Q&A
3:15 pm – 3:30 pm		BREAK

ANTHROPOLOGY

Refining Methods in Taphonomy and Trauma

- 3:30 pm – 3:45 pm **A59** **Fracture Characteristics of Human Ribs Vary With Intracortical Porosity**
*Mary Cole, PhD**; *Angela Harden, PhD*; *Yun-Seok Kang, PhD*; *Amanda Agnew, PhD*
- 3:45 pm – 4:00 pm **A60** **The Application of Forensic Fractography to Thermally Altered Bone**
*Cortney Hulse, PhD**; *Rylan Tegtmeier Hawke, PhD*; *Mariyam Isa, PhD*; *Kristen Grow, MA*;
Alexander Christensen, PhD
- 4:00 pm – 4:15 pm **A61** **Differential DNA Preservation in Soft and Osseous Tissues After Fire Exposure**
*Arielle Sperber, BA**
- 4:15 pm – 4:30 pm **A62** **Re-Evaluating Temperature Data in Human Tissues Exposed to Fire**
*Ashley Kendell, PhD**; *Beth Shook, PhD*; *Arielle Sperber, BA*; *Shelby Saut, BA*; *David Silveira, MS*
- 4:30 pm – 4:45 pm **A63** **Locating Clandestine Burial Grounds: A Forensic Approach**
*Erin Kimmerle, PhD**
- 4:45 pm – 5:00 pm **A64** **Photogrammetric Documentation of the Changing Surface Morphology of Buried Human Remains**
*Mary Davis, MS**; *Mason Jones, BA*
- 5:00 pm – 5:15 pm **A65** **Cellular Degradation and Migration in Bone as a Tool to Investigate the Postmortem Interval and Skeletal Break Timing**
*Ashley Smith, MS**

Thursday – Session II

Technologies of Reconstruction and Identification

- 8:30 am – 8:45 am **A66** **3D-CT-Based Estimation of Facial Soft Tissue Thickness in the Punjabi Population for Craniofacial Reconstruction**
*Akhilesh Pathak, MD**; *Chandrakala Gadige, MBBS*
- 8:45 am – 9:00 am **A67** **The Intra- and Inter-Observer Reliability in Morphological Extractions of the Maxillofacial Region**
*Teresa Runge, PhD**; *Matteo Borrini, PhD*
- 9:00 am – 9:15 am **A68** **Adapting Facial Approximations to a Modern Audience: The Use of Augmented Reality Filters and Profile Apps**
*Matteo Borrini, PhD**
- 9:15 am – 9:30 am **BREAK**

Case Studies and Lessons in Identification

- 9:15 am – 9:30 am **A69** **Comparative Identification in 3D: What Virtual Anthropology Can Do for You**
*Stephanie Melillo, PhD**; *Samantha Buck, BS*; *Jessica Cronin, BA*; *Stephen Hostetler, BA, BS*;
Brailey Moeder, BS; *Rhiannon Toy*; *Chenoa Woods*; *Nicole Wray, BA*
- 9:45 am – 10:00 am **A70** **Forensic Investigative Genetic Genealogy: A New Opportunity to Resolved Unidentified Cases**
*Bruce Anderson, PhD**; *Jennifer Vollner, PhD*; *Caitlin Vogelsberg, PhD*

ANTHROPOLOGY

- 10:00 am – 10:15 am **A71** **The Sugar Land 95: A Forensic Genetic Genealogical Approach to Restoring Individual Identity**
*Samantha Hofland, MA**; *Catrina Banks Whitley, PhD*; *Helen Graham, EdD*; *Abigail Fisher, MS*;
Felicia Sparozic, PhD
- 10:15 am – 10:30 am **A72** **The Wounds Time Does Not Heal: A Case of Historical Pitfalls and the Present-Day Identification of a United States Marine From World War II**
*Rylan Tegtmeyer Hawke, PhD**; *Cullen Black, MS*
- 10:30 am – 10:45 am **A73** **The Use of Antemortem Trauma in Identifications at the Defense POW/MIA Accounting Agency**
*Sam Coberly, PhD**
- 10:45 am – 11:00 am **A74** **Integrating Forensic Archaeology and Historic Battlefield Protocols at Historic Conflict-Related Aircraft Crashes: A World War II B-17 Case Study**
*Andrea Palmiotto, PhD**; *William Chadwick, PhD*; *Allysha Winburn, PhD*; *Parker Chadwick, BS*;
Robert Ingraham, MS
- 11:00 am – 11:15 am **A75** **An Anthropological Response to Mass Disaster: Lessons Learned From the October 7th Attack**
*Michal Peer, MASc**; *Tal Simmons, PhD*

Friday

Poster Session

- 11:30 am – 1:00 pm **A76** **Ethical Considerations of Cadaver Dog Training, Certification, and Field Use**
*Victoria Eacott, BA**
- 11:30 am – 1:00 pm **A77** **Examining Contributing Factors to Natural Human Mummification at FOREST in Cullowhee, North Carolina**
*Alex Vacca**; *Kaleigh Best, PhD*; *Rebecca George, PhD*; *Leilah Melerine, BS*
- 11:30 am – 1:00 pm **A78** **First Donor of the Forensic Science Research and Training Laboratory (FSRTL): Exploring Unique Geographic Variation in Human Decomposition in the Mid-Atlantic Region**
*Nickolyn Jackson, BA**; *Molly Kilcarr, BS**; *An-Di Yim, PhD*; *Emily Rancourt, MSFS*
- 11:30 am – 1:00 pm **A79** **Understanding Human Decomposition in the Great White North: A Review of REST[ES]’s First Five Years and Future Directions**
*Elisabeth Cuerrier-Richer, MS**; *Noémie Bitschnau, MScFS*; *Hugues Leblond, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A80** **Opening the Black Box: Explainability Tools in Postmortem Interval Estimation**
*Katherine Weisensee, PhD**; *Madeline Atwell, PhD*; *Carl Ehrett, PhD*; *Madeline Babcock*;
Brianna Cherry
- 11:30 am – 1:00 pm **A81** **A Postmortem Interval Estimation Method for Surface Depositions: A Template Applied in Southeastern Louisiana**
*Sophia Reck, MA**
- 11:30 am – 1:00 pm **A82** **Examining the Effects of Two Freshwater Environments on Decomposition and the Associated Microbial Communities**
*Leah Bell, BS**; *Jane Harris, PhD*

ANTHROPOLOGY

- 11:30 am – 1:00 pm **A83** **Differences in Tissue Consumption by Maggots**
*Emma Giacomello, MA**; *Michelle Hamilton, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A84** **A Homogenous Diet in a Diverse City: Understanding Isotopic Dietary Variation and Its Forensic Implications in San Francisco, California**
*Taylor Lambrigger, MA**; *Alina Tichinin, MA*
- 11:30 am – 1:00 pm **A85** **On FIRM(S) Footing?: A Review of the Use and Reporting of Stable Isotopic Analysis in Forensic Anthropological Dissertations**
*Alina Tichinin, MA**; *Taylor Lambrigger, MA*
- 11:30 am – 1:00 pm **A86** **The Implications of Quantitative Spectral Analysis of Human Cremains in the Texas State Donated Skeletal Collection (TXST-DSC)**
*Anna Maier, MS**; *Hailey Collord-Stalder, MA**
- 11:30 am – 1:00 pm **A87** **The Development of a Matrix-Matched Reference Material for Quantitative Elemental Analysis of Bone**
*Kristen Livingston, BS**; *Amanda Williams*; *Juliana Baez*; *Matthieu Baudelet, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A88** **An Examination of Volatile Organic Compounds Associated With Human Decomposition Byproducts in Soil**
*Jane Harris, PhD**; *Savannah Struble, MS*; *Philip Yangyuoru, PhD*
- 11:30 am – 1:00 pm **A89** **Assessing the Micro- and Macroscopic Changes of Taphonomically Altered Bone**
*Shelby Feirstein, MS**; *Sara C. Zapico, PhD*; *Luis Cabo, MS*; *Joe Adserias-Garriga, PhD*
- 11:30 am – 1:00 pm **A90** **Bullet Grazing: Using Laser-Induced Breakdown Spectroscopy to Analyze Metallic Staining on Skeletal Remains**
*Morghan Hogg, MS**; *Micki Besse, MS*; *Savanna Agilar, MS*; *Heather Walsh-Haney, PhD*; *Kevin Davies, PhD*
- 11:30 am – 1:00 pm **A91** **An Analysis of Color Changes in Thermally Altered Bones Using Spectrophotometry**
*Chelsey Juarez, PhD**; *Nicole Saenz, MS*; *Elayne Pope, PhD*; *Alison Galloway, PhD*
- 11:30 am – 1:00 pm **A92** **The Statistical Relationship of Breakaway Spurs and Notches With Saw Class Characteristics in Experimental Dismemberments**
*Stephanie Cole, PhD**; *Brigham McKay, BS*; *Meghan Gast, BS*; *Heather Garvin, PhD*
- 11:30 am – 1:00 pm **A93** **Damage to the Thorax From CPR and Vulture Scavenging: A Case Presentation From the University of South Florida Donated Skeletal Collection**
*Tuesday Frasier, MS**; *Erin Kimmerle, PhD*
- 11:30 am – 1:00 pm **A94** **Squirrels in the Desert: Regional Scavenging Patterns**
*Alexander Smith, BA**
- 11:30 am – 1:00 pm **A95** **Recovery Rates of Teeth From Outdoor Surface Contexts in Louisiana**
*Ginesse Listi, PhD**
- 11:30 am – 1:00 pm **A96** **Assessing the Effectiveness of Alternative Light Sources in the Search for Skeletal Remains**
*Olivia Thompson, BS**; *James Russell, BFA*; *Stephen Stockman, MPA*; *Jenise Swall, PhD*; *Tal Simmons, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)

ANTHROPOLOGY

- 11:30 am – 1:00 pm **A97** **Standard Operating Procedures for Forensic Anthropology at Accredited United States Laboratories: A Preliminary Assessment**
*Marion Davidson, MS**; *Allysha Winburn, PhD*; *Jeff Kukucka, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A98** **An Evaluation of the Forensic Anthropology DEIB Peer Engagement Program**
*Erin Waxenbaum, PhD**; *Jaymelee Kim, PhD*; *Jesse Goliath, PhD*; *Rebecca George, PhD*; *Helen Litavec, PhD*
- 11:30 am – 1:00 pm **A99** **The American Academy of Forensic Sciences Ad Hoc Committee on Vicarious Trauma**
*Katharine Pope, MA**; *Brian Gestring, MS**; *Krista Latham, PhD*; *Uzoma Okafor, PhD*; *Kathryn Seigfried-Spellar, PhD*; *Joseph Remy, JD*
- 11:30 am – 1:00 pm **A100** **The Development of a New Pedagogy: The Professional Diploma in Forensic Archaeology at the National Forensic Science University, Gandhinagar, Gujarat, India**
*William Belcher, PhD**; *Gargi Jani, MS*
- 11:30 am – 1:00 pm **A101** **Applying Multidisciplinary Methods to Forensic Casework in North Carolina**
*Carolina Nicole Long, MSCJ**; *Devin Williams, MA*; *Ann Ross, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A102** **To Scan or to Slice: A Holistic Investigation of One of Florida’s Oldest Unsolved Murders**
*Olivia Loveridge, BS**; *Micki Besse, MS*; *Savanna Agilar, MS*; *Heather Walsh-Haney, PhD*; *Russell Vega, MD*
- 11:30 am – 1:00 pm **A103** **Three-Dimensional Research on Ancient Skeletons of South Korea With Computed Tomography**
*Dong-Ho Kim, PhD**; *Ji-Hyun Lee, BA*; *Dae-Kyoon Park, MD, PhD*; *Yi-Suk Kim, MD, PhD*; *Sang-Seob Lee, PhD*
- 11:30 am – 1:00 pm **A104** **Demographic Timelines: Postmortem Data and Structural Violence in the Southeastern United States**
*Elise Adams, MA**; *Jesse Goliath, PhD*
- 11:30 am – 1:00 pm **A105** **Demographic Trends in Resolution of Adult Skeletal Cases in the National Missing and Unidentified Persons System From 2020 to 2024**
*Valerie Sgheiza, PhD**
- 11:30 am – 1:00 pm **A106** **Comparing Antemortem Trauma Prevalence and Reporting Frequency in Unidentified Migrants Compared to a Non-Migrant Sample: A Pilot Study for Identification Purposes**
*Victoria Soto, MA**; *Kate Spradley, PhD*
- 11:30 am – 1:00 pm **A107** **Gendered Language Use in Forensic Science Publications (2003–2023)**
*Samantha McCrane, PhD**; *Ella Tartsa*; *Amy Michael, PhD*
- 11:30 am – 1:00 pm **A108** **Technology You Can Stand On: Skeletal Changes in Human Remains With Lower Extremity Orthopedic Prostheses**
*Savanna Agilar, MS**; *Micki Besse, MS*; *Heather Walsh-Haney, PhD*
- 11:30 am – 1:00 pm **A109** **Evaluating Cortical Bone Structural Variation in Association With Activity Level**
*Shelby Garza, MA**
(FSF Emerging Forensic Scientist Award Poster Presentation)

ANTHROPOLOGY

- 11:30 am – 1:00 pm **A110** **The Utility of Low-Resolution Imaging in the Assessment of a Decedent’s Activity Level and Body Mass**
ChristiAna Dunham, MS; Elaine Chu, PhD; Adam Sylvester, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A111** **A Preliminary Comparison of Fracture Characteristics Between Fleshed and Defleshed Human Tibiae**
Angela Harden, PhD; Christopher Goden, MA; Yun-Seok Kang, PhD; Kyra Stull, PhD; Amanda Agnew, PhD*
- 11:30 am – 1:00 pm **A112** **A Preliminary Evaluation of Reliability in Long Bone Fracture Classification Methods Among Observers**
Christopher Goden, MA; Amanda Agnew, PhD; Emma Brzezinski, MA; Julia McGinley; Angela Harden, PhD*
- 11:30 am – 1:00 pm **A113** **Investigating Differences in Methodological Approaches to Scoring Fracture Angle, Outline, and Surface**
Carter Unger, MA; Mariyam Isa, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A114** **Taphonomic Change in Fracture Characteristics of Porcine Long Bones in the Sonoran Desert During the Summer**
Kaitlyn Fulp, MA; Emelia Jensen, BS; Sophia Sedlacek, BS; Katelyn Bolhofner, PhD*
- 11:30 am – 1:00 pm **A115** **Distribution Patterns of Trauma by Event Type: Examining the Differences Between Trauma Distributions of Decedents in Different Traumatic Events**
*Petra Banks, PhD**
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A116** **Is It All the Fault of a Fist? Forensic Reconstruction in a Case of “Imperfect” Skull Fractures**
Enrica Macorano, MD; Giovanni De Gabriele, MD; Alessandro Cristalli, MD; Angela Colucci, MD; Sara Di Trani, MD; Francesco Introna, MD, PhD*
- 11:30 am – 1:00 pm **A117** **Characterizing Entrance Wounds From Gunshot Trauma in Tubular Bones: Comparing Handgun and Rifle Ammunition**
Alexandra Semma Tamayo, MS; Laure Spake, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **A118** **Exploring Inter-Observer Agreement in Assessments of Projectile Defects**
Mariyam Isa, PhD; Delaney Edwards, MA; Jordyn Knysz, BA; Alexander Curry, BA*
- 11:30 am – 1:00 pm **A119** **The Validation of 3D Photogrammetry Models to Document Cranial Trauma**
Samantha LaVake, BS; Carolyn Isaac, PhD*
- 11:30 am – 1:00 pm **A120** **Enhancing Forensic Investigations: Leveraging Transfer Learning for Cut Mark Classification on Skeletal Remains**
Giada Steiger, MS; Ricardo Chavez Garcia, PhD; Matteo Borrini, PhD*
- 11:30 am – 1:00 pm **A121** **Cutting Edge Comparisons: Analyzing Saw Kerf Variables in Bones Versus Casts**
Alexis VanBaarle, MS; Heather Garvin, PhD*
- 11:30 am – 1:00 pm **A122** **Testing Bias in Cut Mark Analysis: An Exploratory Study**
Karin Dominko, MS; Giada Steiger, MS; Matteo Borrini, PhD*

ANTHROPOLOGY

Friday

Biological Profile Part I: Population Affinity and Craniometrics

- 8:00 am – 8:15 am **A123** **Assessing Cranial Macromorphoscopic Traits Used in the Forensic Estimation of Population Affinity**
*Savannah Holcombe, MS**; *Joe Hefner, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 8:15 am – 8:30 am **A124** **Exploring Cranial Macromorphoscopic Variation in a Modern American Indian Sample From New Mexico**
*Kelly Kamnikar, PhD**; *Nicollette Appel, MS*; *Micayla Spiros, PhD*; *Hannah Cantrell, BS*; *Heather Edgar, PhD*
- 8:30 am – 8:45 am **A125** **Patterns of Covariation in Cranial Metric and Macromorphoscopic Variables**
*Briana New, MA**; *Kyra Stull, PhD*; *Joe Hefner, PhD*; *Kate Spradley, PhD*; *Leah Auchter, MA*; *Elaine Chu, PhD*; *Louise Corron, PhD*; *Matthew Go, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 8:45 am – 9:00 am **A126** **Exploring Population Affinity Analysis for Forensic Anthropology Casework in Latin America**
*Kelly Kamnikar, PhD**; *Daniel Jimenez Gaytan, MS*; *Amber Plemons, PhD*; *Joe Hefner, PhD*
- 9:00 am – 9:15 am **A127** **AI-Assisted Technological Advancements for the Collection of Cranial Landmark Data and Interlandmark Distances From Medical Imaging Software**
*Nicollette Appel, MS**; *Kelly Kamnikar, PhD*; *Kate Spradley, PhD*; *Heather Edgar, PhD*
- 9:15 am – 9:30 am **BREAK**

Biological Profile Part II: Sex, Age, and Stature

- 9:30 am – 9:45 am **A128** **An Evaluation of the Accuracy and Reliability of MorphoPASSE for Skeletal Sex Estimation Using the University of Tennessee Donated Collection**
*Derek Boyd, PhD**; *Kylie Williamson, PhD*; *Steven Lautzenheiser, PhD*; *Emma Pullias, BA*; *Devin Adcox, MA*
- 9:45 am – 10:00 am **A129** **The Application of Decision Trees and Random Forest Modeling for Combining Morphological and Metric Variables of the Skull for Osteological Sex Estimation**
*Morgan Ferrell, PhD**; *John Schultz, PhD*; *Donovan Adams, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 10:00 am – 10:15 am **A130** **The Application of Non-Metric Sex Estimation Methods to Virtual 3D Cranial Models**
*Marion Davidson, MS**; *Conner Welty, MS*; *Sherry Nakhaeizadeh, PhD*; *Ruth Morgan, DPhil*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 10:15 am – 10:30 am **A131** **Evaluating Subadult Age Estimation Methods From Long Bones Using a Contemporary Japanese Sample**
*Elaine Chu, PhD**; *Amariah Treviño, BS*
- 10:30 am – 10:45 am **A132** **Variables Impacting the Application of Radiographic Age Estimation by Pulp/Tooth Ratios**
*Cirillo Laura, PhD**; *Katie Skorpinski, PhD*

ANTHROPOLOGY

10:45 am – 11:00 am	A133	A Multifactorial Method of Age Estimation in the Living From Computed Tomography (CT) Scans <i>Frankie Dunn, MS*; Lyle Konigsberg, PhD</i>
11:00 am – 11:15 am	A134	Applying Deep Learning Methods to Adult Age Estimation of Pelvic Joints <i>Krista Bennett, MA*</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
11:15 am – 11:30 am	A135	A Comparison of Regression Analysis and Mathematical Methods for Stature Estimation From Upper Limb Anthropometric Measurements in the Modern South Indian Population <i>Ambika Patra, MD*; Shashank Singh, MD</i>
11:30 am – 1:00 pm		BREAK

Internal Standards and External Perceptions of Forensic Anthropology

1:00 pm – 1:15 pm	A136	Forensic Anthropology in China: History and Current Status <i>Qun Zhang, PhD*</i>
1:15 pm – 1:30 pm	A137	The Progress in Standards Development in Forensic Anthropology: Updates From the OSAC and ASB <i>Julie Fleischman, PhD*; Eric Bartelink, PhD</i>
1:30 pm – 1:45 pm	A138	The Roaring 20s: A 20-Year Review of a Forensic Anthropologist's Casework That Spans Pre-and Post-ABFA Certification <i>Micki Besse, MS*; Savanna Agilar, MS; Heather Walsh-Haney, PhD</i>
1:45 pm – 2:00 pm	A139	WITHDRAWN
2:00 pm – 2:15 pm	A140	Community Experiences of Forensic Anthropological Work in Human Rights Settings: A Case Study of El Mozote <i>Biannet Perez, MA*; Laure Spake, PhD</i>
2:15 pm – 2:30 pm	A141	Rated or Ratioed? Using Open-Source Software to Investigate Public Perception of Human Taphonomy Facilities on Social Media Platforms <i>Anna Williams, PhD*; Xenia-Paula Kyriakou, PhD; Kelda Stagg, MS; Martin Bateman, PhD</i>
2:30 pm – 2:45 pm	A142	An Exploratory Study of Human Skeleton Sales on E-Commerce Platforms and Social Media <i>Kaitlyn Glavee, BA*; Krista Latham, PhD</i>
2:45 pm – 3:00 pm		BREAK

Technology in Forensic Anthropological Research and Training

3:00 pm – 3:15 pm	A143	Expanding the Forensic Anthropology Database for Assessing Methods Accuracy (FADAMA): Standardizing Case Management Systems, Real-Time Reliability Metrics, and Promoting Training Accessibility <i>Cris Hughes, PhD*; Chelsey Juarez, PhD; An-Di Yim, PhD; Runzhao Hu; Matthew Berry, MS; Fangyu Zhou, MDes</i>
-------------------	-------------	--

ANTHROPOLOGY

- 3:15 pm – 3:30 pm **A144** **Advancements in the Accessibility of AI and Large Language Models (LLM) Tools Can Assist in the Development of State-of-the-Art Models in Forensic Sciences: Examples From Forensic Anthropology**
*Jerković Ivan, PhD**; *Željana Bašić, PhD*; *Ivana Kružić, PhD*
- 3:30 pm – 3:45 pm **A145** **Establishing a Protocol for Machine Learning Applications in Forensic Anthropology**
*Eman Faisal, MS**; *Tracy Rogers, PhD*
- 3:45 pm – 4:00 pm **A146** **Testing the Effectiveness of Virtual Reality Training in Teaching Mass Fatality Response**
*Jade De La Paz, PhD**; *Charlotte King, PhD*; *Ivett Kóvári, PhD*
- 4:00 pm – 4:15 pm **BREAK**

Considerations for Research With Human Remains and Their Proxies

- 4:15 pm – 4:30 pm **A147** **Investigating Sample Bias in United States-Based Documented Skeletal Collections**
*Rhian Dunn, MS**
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 4:30 pm – 4:45 pm **A148** **Biomechanical Testing of Non-Human Analogs Used in Skeletal Trauma Research**
*Lillian Antonelli, MA**
- 4:45 pm – 5:00 pm **A149** **Proposing Sustainable and Cruelty-Free Proxies for Bones in Cut Marks Analysis**
*Matteo Borrini, PhD**; *Beth Lawrence-Skitch, MS*; *Giada Steiger, MS*
- 5:00 pm – 5:15 pm **A150** **Ethics Around the Creation and Use of 3D-Printed Human Remains in Crime Reconstruction: Toward the Ethical Use of Technology in Forensic Anthropology**
*Rachael Carew, PhD**; *Ruth Morgan, DPhil*; *James French, PhD*
- 5:15 pm – 5:30 pm **A151** **A Water-Cooled Probe Thermocouple System for Accurate Temperature Measurements in Human Donors During Forensic Fire-Death Scenarios**
*David Silveira, MS**; *Arielle Sperber, BA*; *Ashley Kendell, PhD*; *Beth Shook, PhD*

CRIMINALISTICS

Wednesday

Poster Session

- 11:30 am – 1:00 pm **B1** **Revisiting Guidance on Sampling of Populations for Highly Polymorphic Forensic Loci**
*Sanne Aalbers, PhD**; *Katherine Gettings, PhD*
- 11:30 am – 1:00 pm **B2** **Assessing the Added Value of Non-Human DNA Analysis for Forensic Soil Analysis**
*Kelly Meiklejohn, PhD**; *Melissa Scheible, MFS*; *Tiffany Layne, PhD*; *Teresa Tiedge, PhD*;
Jack Hietpas, PhD; *Jodi Webb, MS*; *Libby Stern, PhD*
- 11:30 am – 1:00 pm **B3** **A Small-Scale Ancestry Informative DIP-STR Marker Set for Biogeographic Ancestry Inference in United States Populations**
Lauren Hoopes, MSFS; *Nicole DeWald*; *Diana Hall, PhD*; *Daniele Podini, PhD*;
*Fabio Oldoni, PhD**
- 11:30 am – 1:00 pm **B4** **Addressing the Challenges of the ISFG Minimum Sequence Ranges When Implementing NGS Technologies for STR Typing**
*Christina Scott, MS**; *Kevin Cheng, PhD*; *Kyleen Teague, PhD*; *Kim Eskey, MS*;
Tracy Ferguson, MS; *Jo-Anne Bright, PhD*; *Rebecca Just, PhD*; *Rebecca Mitchell, PhD*
- 11:30 am – 1:00 pm **B5** **Assessing the Viability of DNA Yields From Taphonomically Altered Bone and Teeth**
*Shelby Feirstein, MS**; *Maria Castagnola, MA*; *Mayaas Hassan, BA*; *Alixs Pujols, BS*;
Sara C. Zapico, PhD; *Luis Cabo, MS*; *Joe Adserias-Garriga, PhD*
- 11:30 am – 1:00 pm **B6** **It's Common Cents—How to Spend a Million Dollars in Five Months!**
*Julie Ferragut, BS**
- 11:30 am – 1:00 pm **B7** **The Molecular Diversity of 23 Y-STR Genetic Markers in an Endogamous Ramgharia Population of Punjab, India**
*Amandeep Kaur Bhambara, PhD**; *Shivkant Sharma, PhD**; *Vivek Sahajpal, PhD*
- 11:30 am – 1:00 pm **B8** **A Comprehensive Drug Analysis of Vaporizer Products From Pennsylvania High Schools**
*Alexis Quinter, MASc**; *Joshua DeBord, PhD*; *Alex Krotulski, PhD*; *Barry Logan, PhD*;
Max Denn, MS
- 11:30 am – 1:00 pm **B9** **Field Testing of Drug-Incorporated Edible Jellies Using Portable Raman-Based Analyzers and Colorimetric Tests**
*Abid Naseer, MS**; *Tahir Jamshaid, MPhil*; *Muhammad Usman, MS*; *Laraib Batool, PharmD*;
Muhammad Saqib Kabir Khan, MS
- 11:30 am – 1:00 pm **B10** **Source Attribution of Fentanyl Via Metals Analysis**
*Edward Bentil, PhD**; *Marie Taylor, BSFS*; *Brian Eckenrode, PhD*
- 11:30 am – 1:00 pm **B11** **Determination of Plant DNA Recovery After Extraction of Ephedrine From Ephedra: A Pilot Study**
*Nurdan Sandikçi, MS**; *Tuğba Ünsal Sapan, PhD*; *Sevil Atasoy, PhD*; *Salih Tuncay, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B12** **A Simple DNA Extraction Method and a Rapid PCR-Based Assay for Detecting Ricinus Communis L. DNA Co-Extracted With Ricin**
*Renato Paranaiba, PhD**

CRIMINALISTICS

- 11:30 am – 1:00 pm **B13** **A Rapid Method for Identifying Source Species of Body Fluids: Implications for Wildlife Investigations**
*Kate Jones**; Christopher Ehrhardt, PhD
- 11:30 am – 1:00 pm **B14** **The Mysterious Case of a Fatal Accident During Skydiving: A Fracture of the Pelvis From Parachute Opening Shock (POS)?**
*Naomi Iacoponi, MD**; Julia Lazzari, MD; Carla Occhipinti, MD; Giacomo Visi, MD; Matteo Leoni, MD; Alessandra Cicchini, MD; Giorgio Chianducci, PEng; Roberto Testi, MD; Marco Di Paolo, MD
- 11:30 am – 1:00 pm **B15** **A 3D-Printed Object Topography Analysis and the Viability for Forensic Examination**
*Cooper Blair, BS**; Eric Law, PhD
- 11:30 am – 1:00 pm **B16** **Exploring the Persistence of Human Scent for Forensic Purposes**
*Alex Stone, BSFS**; Edward Bentil, PhD; Brian Eckenrode, PhD
- 11:30 am – 1:00 pm **B17** **A Characterization of Decomposing Human and Animal Tissue in a Micro-Scale Biotope Through Simulated Rainwater Extraction**
*Nicholas Lyde, BSFS**; Edward Bentil, PhD; Brian Eckenrode, PhD; Ivory Krise, MSFS; Nana Kennedy, MSFS
- 11:30 am – 1:00 pm **B18** **Analyzing the Case of a Fatal Shooting on a Movie Set**
*Peter Diaczuk, PhD**; Lexy Dejesus, BA
- 11:30 am – 1:00 pm **B19** **Developing a Method for the Analysis of Products Claiming to Treat COVID-19**
*Christopher Poulos, MS**; Travis Falconer, PhD; Michael Thatcher, BS; Adam Lanzarotta, PhD; Martin Kimani, PhD
- 11:30 am – 1:00 pm **B20** **Forensic Intelligence Derived From Crime Scene Evidence Using Text Embeddings**
*Vinicius Lima, MEng**; Umit Karabiyik, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B21** **Deep Ultraviolet Raman Spectroscopy for the Forensic Analysis of Oral Fluids**
*Mohamed Amin, PhD**; Fatima Matroodi, PhD; Entesar Al-Hetlani, PhD; Barbara Rossi, PhD; Igor Lednev, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B22** **The Distribution of Retroreflective Glass Beads in Soil Samples**
*Shirly Montero, PhD**
- 11:30 am – 1:00 pm **B23** **Forensic Profiling of Cigarette Paper Using ATR/FTIR Spectroscopy and Machine Learning/Algorithms**
*Vishal Sharma, PhD**; Akanksha Sharma, MS
- 11:30 am – 1:00 pm **B24** **Low-Field and Benchtop NMR in the Forensic Science: Challenges and Opportunities**
*Caroline D'Oca, PhD**; Kahlil Salome, PhD; Anelize Bahniuk, PhD; Marcio Fernandes, PhD
- 11:30 am – 1:00 pm **B25** **Cracking the Case: Toward the Development of Mass Spectral Analysis of Blow Fly Eggs for Postmortem Interval Determination**
*Alexa Figueroa, BS**; Jennifer Rosati, PhD; Rabi Musah, PhD
- 11:30 am – 1:00 pm **B26** **The Contamination of Training Aid Substrates**
*Fernando Zaldivar Eyre, BS**

CRIMINALISTICS

- 11:30 am – 1:00 pm **B27** **A Rapid Hand-Held Detector for Drugs and Explosives and Their Signature VOCs Using Novel Nano-Porous Molecularly Imprinted Polymer Sensors**
*Kenneth Furton, PhD**; *Abuzar Kabir, PhD*; *Patrick Roman, PhD*
- 11:30 am – 1:00 pm **B28** **Exploring Alternative Solvents for Dichloromethane as an Extraction Solvent of Sexual Lubricant Components Using Gas Chromatography/Mass Spectroscopy**
*Safiya Best, MScFS**; *Ashley Gamache*; *Candice Bridge, PhD*

Thursday

Poster Session

- 11:30 am – 1:00 pm **B29** **Time-Since-Deposition Signatures for the Analysis of Canine Body Fluids**
*Alysia Townsley**; *Christopher Ehrhardt, PhD*
- 11:30 am – 1:00 pm **B30** **Implementing Y-Screen Protocols as a Tool for Sexual Assault Forensic Examination Kit Backlog Reduction**
*Lake Prescott, MSFS**
- 11:30 am – 1:00 pm **B31** **The Use of Quantitation Values to Infer the Possible Presence of Spermatozoa**
*Kate DeHeer, MPS**; *Ashley Luther, MS*; *Joanna Johnson, MS*
- 11:30 am – 1:00 pm **B32** **Seminal Fluid Identification in Different Semen Sample Types**
*Gabriela Roca, PhD**; *Mercedes Aler*; *Maria Castagnola, MA*; *Scarlet Neilson, MSFS*; *Francisco Medina Paz, PhD*; *Maik Schlieper*; *Nora Ronan-Milz*; *Polina Khalizov*; *Elizabeth Brusacoram, BS*; *Maria Isabella Negretti, BS*; *Amy Brodeur, MFS*; *Mirna Ghemrawi, PhD*
- 11:30 am – 1:00 pm **B33** **Increased DNA Quantification Sensitivity: An Evaluation of Investigator Quantiplex Pro FLX**
*Julia Wang, MS**; *Ya-Chih Cheng, PhD*; *Joshua Boster, BS*; *Rachel Houston, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B34** **A Novel Method for the Identification of Source Tissue in Biological Mixtures**
*Gabrielle Wolfe**; *Nicole Dailey, MS*; *Christopher Ehrhardt, PhD*
- 11:30 am – 1:00 pm **B35** **QIAxcel vs. qPCR: Evaluating Versatility for Forensic DNA Screening**
*Susana Garcia, BS**; *Natalia Czado, MSFS*; *Damani Johnson, BS*; *Cesar Cantu, BS*; *Sheree Hughes, PhD*; *Rachel Houston, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B36** **The Simultaneous Recovery of DNA, RNA, and Protein From Biological Samples for Forensic Applications Using a Novel Method**
*Jacob Hetzke, BS**; *Coral Smith, MS*; *Brian Davis, PhD*; *Michael Rishel, PhD*; *Chrystal Chadwick, BS*; *John Nelson, PhD*; *Arati Iyengar, PhD*
- 11:30 am – 1:00 pm **B37** **An In-Depth Look at DNA Casework on Fired Cartridge Casings Extracted Using a Modified Swabbing and Extraction Technique**
*Jennifer Belna, BS**; *Rhonda Carter, BS*
- 11:30 am – 1:00 pm **B38** **Streamlining Forensic Workflows: Field Test Results of Forensic Samples Using the HID NIMBUS Presto QNA System**
*Kayli Carrillo, BS**; *Sheree Hughes, PhD*

CRIMINALISTICS

- 11:30 am – 1:00 pm **B39** *(FSF Emerging Forensic Scientist Award Poster Presentation)*
The Simultaneous Determination of Time-Since-Deposition and Source Tissue for Forensic Biological Samples
*Caitlin Lydon, BS**; *Christopher Ehrhardt, PhD*; *Catherine Connon, PhD*; *Susan Greenspoon, PhD*
- 11:30 am – 1:00 pm **B40** **Modified Extraction Protocols for Nuclear DNA Extraction From Human Hair Shafts**
*Holly Zhao, BS**; *Vinalon Mones, BS*; *Elaine Lewis, PhD*; *Glenn Fahrig, MS*; *Gregory Peiffer, PhD*; *Rebecca Sloman, MFS*; *Katherine Hargett, MFS*; *Todd Bille, MS*; *Daniele Podini, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B41** **Direct to DNA: Revolutionizing Forensic Analysis by Streamlining the Process**
*Darcy Machado, MSFS**; *Francesca Spatola, MS**
- 11:30 am – 1:00 pm **B42** **Rapid DNA—Friend or Foe? Comparing Rapid DNA Analysis With Conventional Methodologies for Sexual Assault and Identification Cases**
*Tania Dominguez González, BS**; *Jenny Acevedo González, PhD*
- 11:30 am – 1:00 pm **B43** **The Impact of Various Substrates and Deposition Time on Bacteria Associated With Saliva Samples and Its Implication on the Accuracy of a Bacterial Signature- Based Body Fluid Identification Method**
*Olisdey Galano Cruz, BS**; *Sarah Seashols-Williams, PhD*; *Paul Brooks, PhD*; *Baneshwar Singh, PhD*; *Denise Wohlfahrt, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B44** **Enhancing Success Rates in Sexual Assault Investigations With the SpermX Differential Extraction System**
*Huma Nasir, MS**; *Amanda Walker, MS*; *Kelsy Lowther, MS*
- 11:30 am – 1:00 pm **B45** **Expanding On-Site Crime Scene Reconstruction Capabilities by Uncovering Microscopic Clues Using Mobile Laser-Induced Breakdown Spectroscopy (LIBS)**
*Leah Thomas, BS**; *Roger Jefferys, MS*; *Luis Arroyo, PhD*; *Tatiana Trejos, PhD*
- 11:30 am – 1:00 pm **B46** **Analysis of Inorganic Oxidizing Salts in Intact and Chemically Reacted Consumer Fireworks Using Microscopical and Spectroscopic Approaches**
*Sydney Hampton, BS**; *Cassidy Callaway, MS*; *Jared Estevanes, PhD*; *Patrick Buzzini, PhD*; *Geraldine Monjardez, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B47** **An Artificial Intelligence-Based Detection of Ignitable Liquid Residues in Fire Debris Using a Deep Convolutional Neural Network**
*Ting-Yu Huang, PhD**; *Jorn Yu, PhD*
- 11:30 am – 1:00 pm **B48** **The Detection of Organic Explosive Residues From Outdoor Explosions Using Confocal Raman Microscopy**
*Nicholas Jernigan, BS**; *Jared Estevanes, PhD*; *Geraldine Monjardez, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B49** **The Application of a Hand-Held Raman Spectrometer for the Classification of Synthetic- and Petroleum-Based Hydrocarbon Fluids**
*Javier Hodges, BS**; *Kailee Marchand, BS*; *Jorn Yu, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B50** **The Impact of Glass Vial Type in Measuring Raman Spectrum of Liquid Hydrocarbon Samples**
*Kailee Marchand, BS**; *Javier Hodges, BS*; *Jorn Yu, PhD*

CRIMINALISTICS

11:30 am – 1:00 pm	B51	The Detection of Bio-Based Lighter Fluid and Biodiesel Residues on Wood and Fabric Debris <i>Mengliang Zhang, PhD*</i>
11:30 am – 1:00 pm	B52	Real Bullets, Plastic Guns: Evaluating the Strength of 3D-Printed Gun Parts <i>Maria Mayol, BA* ; Peter Diaczuk, PhD</i>
11:30 am – 1:00 pm	B53	The Collection Efficiency of the Activated Charcoal Adsorbent for the Detection and Identification of the DMNB by GC/MS From the Headspace of the Suspected Post-Blast Debris <i>Khalid Feras, MS*</i>
11:30 am – 1:00 pm	B54	The Characterization and Discrimination of Soil by Major Elemental Analysis Using Laser-Induced Breakdown Spectroscopy: A Case Study of Nirasaki in Central Japan <i>Kento Kumisaka, MD* ; Ritsuko Sugita, PhD</i>
11:30 am – 1:00 pm	B55	An Investigation Into Chromatographic Methods for the Preservation, Stability, and Analysis of Organic Gunshot Residue <i>Addio Fiordigigli, BS* ; Kourtney Dalzell, MS ; Thomas Ledergerber, BS ; Tatiana Trejos, PhD ; Luis Arroyo, PhD</i>
11:30 am – 1:00 pm	B56	A Study of Casing Markings of Semi-Automatic Firearms Modified With a Glock® Switch <i>Nicole Sachman, BS* ; Lawrence Quarino, PhD ; Carol Ritter, MS ; Peter Diaczuk, PhD</i>
11:30 am – 1:00 pm	B57	One-Step Non-Contact Sampling and Analysis of Trace Chemical Residues Using an Electrostatic Wand and Paper Spray Mass Spectrometry <i>Kimberly Edmunds* ; La’Nyah Nance ; Kenyon Evans-Nguyen, PhD</i>
11:30 am – 1:00 pm	B58	A Quantitative Assessment of the Stability of New AR-Style Rifle Breech Face Characteristics <i>Teagan Trent* ; Eric Law, PhD</i>
11:30 am – 1:00 pm	B59	A Modified Procedure for Extracting Primer Gunshot Residue From Scanning Electron Microscopy Carbon Stubs and Trace Analysis Utilizing the Graphite Furnace-Atomic Absorption Spectrometry Technique <i>Khalid Feras, MS*</i>
11:30 am – 1:00 pm	B60	Outpacing the Law: NPS—A Global Threat Challenging Forensic Analysis <i>Tahir Jamshaid, MPhil* ; Khalid Feras, MS* ; Umair Ilkram Dar ; Memoona Ishtiaq, PhD</i>
11:30 am – 1:00 pm	B61	The Enhancement of Latent Fingerprints Using Waste Biomass-Derived Biocompatible Fluorescent Graphene Nanosheets <i>Kajol Bhati, PhD* ; Divya Tripathy, PhD</i>
11:30 am – 1:00 pm	B62	An Assessment of the Permeability of VOCs Between Containers Housing Detection Canine Training Aids <i>Kayla Hogan, BA* ; Lauryn DeGreeff, PhD ; Kenneth Furton, PhD</i>
11:30 am – 1:00 pm	B63	The Prevalence of GSR on Ammunition Packaging <i>Brittany Claassen, MS* ; Kailyn Thomas ; Jason Schroeder, MS</i> <i>(FSF Emerging Forensic Scientist Award Poster Presentation)</i>
11:30 am – 1:00 pm	B64	Advancing Trace Evidence Identification Through ATR/FTIR Spectroscopy and Machine Learning for Textile Fibers Analysis <i>Vishal Sharma, PhD* ; Akanksha Sharma, MS</i>

CRIMINALISTICS

- 11:30 am – 1:00 pm **B65** **Addressing Challenges in Mineral Identification by Raman Spectroscopy**
*Jasmine Kaur, MFS**; *Drew Kuroda, BS*; *Joshua Christensen*; *Marisia Fikiet, PhD*;
Peter De Forest, DCrim; *Brooke Kammrath, PhD*
- 11:30 am – 1:00 pm **B66** **The Characterization of Residues Left by the Impact of Different Types of Firearm-Propelled Projectiles**
*Jesus Velho, PhD**; *Aline Bruni, PhD*; *Michele Dos Santos, MD, PhD*; *Milena Souza, MD*

Thursday—Session I

Collection and Extraction

- 8:00 am – 8:30 am **B67** **Standards Development Activities in Human Forensic Biology**
*Jillian Conte, PhD**; *Charlotte Word, PhD*; *Jarrah Kennedy, MSFS*
- 8:30 am – 8:45 am **B68** **An Evaluation of Semen Extraction Efficiency and Recovery After Washing From Reusable Period Underwear**
*Caitlyn Spencer, BS**; *Sarah Seashols-Williams, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 8:45 am – 9:00 am **B69** **Swab Technology Is Advancing: Are We Putting Research Evidence Into Action?**
*Jillian Conte, PhD**; *Tracey Johnson, MSFS*
- 9:00 am – 9:15 am **B70** **A Quantitative Assessment of Extraction Efficiencies Obtained From Various Methods and Sample Types**
*Lauren Mullen, MFS**; *Erica Romsos, MFS*; *Peter Vallone, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 9:15 am – 9:30 am **B71** **Innovative Lab-on-a-Disc Technology for Rapid Differential DNA Extraction in Forensic Science**
*Beomseok Lee, PhD**; *Kyusang Lee, PhD*; *Beomhee Ahn*; *Hanna Kim, BS*; *Hwanghee Ryu, MS*;
Myunghee Jang, BS; *Yoon-Kyoung Cho, PhD*
- 9:30 am – 9:45 am **B72** **A New DNA Collection Tool Kit: Bringing Versatility and Flexibility to Analysts**
*Jamie Fredericks, PhD**; *Eric Wooldridge, MS*
- 9:45 am – 10:15 am **B73** **Differential Extractions—Defining the Problem**
*Robin Cotton, PhD**; *Ashley Lara, MS*; *Anna Berberoglu, MS*; *Xiaoyu Zhang, MS*
- 10:15 am – 10:30 am **BREAK**

Criminalistics Gone Wild

- 10:30 am – 11:30 am **B74** **Criminalistics Gone Wild (in the Courtroom)—Human Factors, Activity Level, and Probability, Oh My!**
***Interactive Panel Discussion**
*Agnes Winokur, PhD**; *Tiffany Rodriguez, MS**; *Claude Roux, PhD, FRSN**;
*Christopher Palenik, PhD**; *Joseph Remy**; *Tim Kalafut, PhD**
- 11:30 am – 1:00 pm **BREAK**

CRIMINALISTICS

Biomarkers, Body Fluids, and Y-STRs

- 1:00 pm – 1:15 pm **B75** **A Proteomic Analysis of Semen for Human Identification and Body Fluid Classification**
*Zachary Goecker, PhD**; *Zheng Zhang, MD*; *Erica Romsos, MFS*; *Meghan Burke, PhD*;
Glendon Parker, PhD; *Stephen Stein, PhD*; *William Wallace, PhD*; *Peter Vallone, PhD*
- 1:15 pm – 1:30 pm **B76** **An Advanced Nucleic Acid Lateral Flow Assay for Rapid and Sensitive Identification of Human Vaginal Fluid Using Molecular Beacon Technology**
*Nidhi Subhashini, PhD**
- 1:30 pm – 1:45 pm **B77** **Integrating Genetic and Epigenetic Sequencing for Forensic Application in a Single Workflow**
*Mirna Ghemrawi, PhD**; *Lindsay Kotchey, MSFS*
- 1:45 pm – 2:00 pm **B78** **A Microfluidic Device for the Rapid Serological Identification of Forensically Relevant Body Fluids**
*Taylor Chambers, BS**; *Renna Nouwairi, PhD*; *Larissa Cunha, BS*; *Liam Barry, MS*;
Rachel Flemming, PhD; *Zoey Golabek, BA*; *Sam McCollam*; *Tiffany Layne, PhD*;
James Landers, PhD; *Ashleigh Williamson, PhD*
- 2:00 pm – 2:15 pm **B79** **The Identification and Optimization of MicroRNA Biomarkers for Accurate Body Weight Prediction in Forensic Samples**
*Kimberly Lettner, BS**; *Xiaomeng Yang, MS*; *Sarah Seashols-Williams, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 2:15 pm – 2:30 pm **B80** **Dead or Alive? Biomarker Identification for Postmortem Blood Detection**
*Sara C. Zapico, PhD**; *Amy Brodeur, MFS*; *Tai-Hua Tsai, MS*; *Gulnaz Javan, PhD*;
Christian Stadler, PhD; *Gabriela Roca, PhD*
- 2:30 pm – 2:45 pm **B81** **The Design and Development of Novel Single Multiplex System Incorporating 26 Rapidly Mutating Y-STRs: 26 RM Yplex**
*Rashed Alghafri, PhD**
- 2:45 pm – 3:00 pm **B82** **The Recovery of Probative aSTR and Y-STR Profiles From Single or a Few Micromanipulated Sperm Cells**
*Morgan Peters, MS**; *Kaitlin Huffman, PhD*; *John Ballantyne, PhD*; *Erin Hanson, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 3:00 pm – 3:15 pm **BREAK**

FIGG and UHR

- 3:15 pm – 3:45 pm **B83** **The Humanitarian DNA Database (HDD): An Update**
*Michael Coble, PhD**; *Melody Josserand, MS*; *Erika Ziemak, MS*
- 3:45 pm – 4:15 pm **B84** **When You Come to a Fork in the Road, Recognize It: Mapping the FIGG Decision-Making Landscape**
*Colleen Fitzpatrick, PhD**; *Valerie Mattimore Fuller, PhD*
- 4:15 pm – 4:35 pm **B85** **Building Branches: Navigating Practical and Ethical Considerations for the Responsible Use of Forensic Investigative Genetic Genealogy (FIGG)**
*Claire Glynn, PhD**

CRIMINALISTICS

4:35 pm – 4:55 pm	B86	Down the Rabbit Hole—Now Up a Tree: Solving Cold Cases Using Forensic Investigative Genetic Genealogy at the New York City Office of Chief Medical Examiner and the Queens District Attorney’s Office <i>Lisa Mertz, MS*; Karen Ross, JD*</i>
4:55 pm – 5:15 pm	B87	The Development of Artificial Single Nucleotide Polymorphism (SNP) Data for Investigative Genetic Genealogy (IGG) Research and Training: A Preliminary Study <i>Jessica Whitney, MS*; Keith Morris, PhD; Aldo Romero, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
5:15 pm – 5:35 pm	B88	The Coldest Cold Case in Croatia: The Body in the Chest Freezer <i>Tina Smoljanović, BAsc*; Hrvoje Senješ, MAS; Jerković Ivan, PhD</i>

Thursday – Session II

SWGMAT Update and Fentanyl

8:00 am – 8:20 am	B89	A 2025 Update From the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) <i>Jaclyn Iera, PhD*</i>
8:20 am – 8:40 am	B90	Reference-Free Identification of Fentanyl Analogs <i>Tom Metz, PhD*; Katherine Schultz, MS; Adam Hollerbach, PhD; Christopher Harrilal, PhD; Dylan Ross, PhD; Danielle Ciesielski, PhD; Yehia Ibrahim, PhD; Simone Raugei, PhD; Bobbie-Jo Webb-Robertson, PhD; Robert Ewing, PhD</i>
8:40 am – 9:00 am	B91	Using Chemical Profiling and Chemometrics for Predictive Fentanyl Geographic Associations <i>Agnes Winokur, PhD*</i>
9:00 am – 9:20 am	B92	Profiling Fentanyl in a Local Drug Market and Characterizing Variability Through Quantitative Chemical Analysis <i>Joshua DeBord, PhD*; Alexis Quinter, MASc; Max Denn, MS; Barry Logan, PhD; Alex Krotulski, PhD</i>
9:20 am – 9:40 am	B93	Longitudinal Insights Into the United States’ Illicit Fentanyl Supply From the Characterization of Counterfeit Fentanyl Tablets <i>Barry Logan, PhD*; Sarah Shuda, MS; Mia Borrelli, MS; M.J. Menendez, JD; Thom Browne, MA; Amanda Mohr, MS</i>
9:40 am – 9:55 am		BREAK

Drug Chemistry Instrumental Analysis

9:55 am – 10:10 am	B94	WITHDRAWN
10:10 am – 10:30 am	B95	The Development of an Analytical Scheme for the Identification of Nitazene Compounds <i>Sarah Caceres, MS*; Russel Ford, PhD*; Sherri Tupik, BS*</i>
10:30 am – 10:45 am	B96	Novel Approaches to Increase Specificity for Difficult Isomeric Separations With Ultra-High Performance Liquid Chromatography (UHPLC) for the Analysis of Seized Drugs <i>Jerimiah Seba, BS*; Ira Lurie, PhD</i>

CRIMINALISTICS

10:45 am – 11:00 am	B97	Determining the Utility of Gas Chromatography/Derivative Vacuum Ultraviolet Spectroscopy for Seized Drug Analysis Through a Comparison to Gas Chromatography/Mass Spectrometry Capabilities <i>Alexa Mehlman, BS*; Ira Lurie, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
11:00 am – 11:15 am	B98	Chemometrics as a Tool for Transformation: Addressing the Limitations of Gas Chromatography/Infrared Spectroscopy for Synthetic Cathinone Analysis <i>Jennifer Bonetti, MS*; Ruben Kranenburg, PhD; Stephen Hokanson, BS; Matthew Pothier, MS; Saer Samanipour, DSc; Arian van Asten, PhD</i>
11:15 am – 11:30 am	B99	An Additional Analysis of Drug Test Strips by Mass Spectrometry for Rapid Comprehensive Drug Checking <i>Meghan Appley, PhD*; Edward Sisco, PhD</i>
11:30 am – 1:00 pm		BREAK

Detector Dogs

1:00 pm – 1:20 pm	B100	Detector Dogs: Advancing Drug Detection Operations Using Science at the United States Customs and Border Protection <i>Jonathan McGrath, PhD*; Armando Avallone, MS</i>
1:20 pm – 1:40 pm	B101	The Development of Fentanyl Training Aids to Advance Canine Detection Strategies <i>Jonathan McGrath, PhD*; Armando Avallone, MS</i>
1:40 pm – 2:00 pm	B102	Canine Training Aid Development of Novel Target Odors to Advance Strategies to Combat Fentanyl Precursors at the Border <i>Jonathan McGrath, PhD*; Armando Avallone, MS</i>
2:00 pm – 2:20 pm	B103	The Evolution of VOC Profiles During Early Human and Animal Decomposition in Application for Canine Detection <i>Fantasia Whaley, MSFS*; Valerie Albizu, BS; Joel Fuentes Carrasco, BS; Emily Millan, BS; Jordi Cruz, PhD; Lauryn DeGreeff, PhD</i>
2:20 pm – 2:40 pm	B104	Assessing the Accuracy and Reliability of Canine Explosives Detection Using OSAC Training and Certification Standards <i>Adele Quigley-McBride, PhD*; Haylie Browning, BS*; Lauryn DeGreeff, PhD; Paola A. Prada-Tiedemann, PhD</i>
2:40 pm – 3:00 pm	B105	Developing a Universal Smokeless Powder Training Aid <i>Rushali Dargan, PhD*; Lauryn DeGreeff, PhD</i>
3:00 pm – 3:20 pm		BREAK

CRIMINALISTICS

Firearm and Toolmark Examinations

3:20 pm – 3:40 pm	B106	OSAC/ASB Standards Development Activities in Firearm and Toolmark Examination <i>Xiaoyu Zheng, MS*; Robert Sanger*</i>
3:40 pm – 4:00 pm	B107	A Quantitative Topography Comparison of Toolmarks Made by Tongue-and- Groove Pliers <i>Eunah Joo, MS*; Thomas Renegar, AA; Johannes Soons, PhD; Michael Stocker, BS; Robert Thompson, MFS; Xiaoyu Zheng, MS</i>
4:00 pm – 4:20 pm	B108	The Interoperability of 3D Firearm Toolmark Measurements <i>Xiaoyu Zheng, MS*; Johannes Soons, PhD; James Yen, PhD</i>
4:20 pm – 4:40 pm	B109	The Generation and Interpretation of the Similarity Score Distribution for Matched and Non-Matched Bullets and Cartridge Cases <i>Neal Schrode, BS*</i>
4:40 pm – 5:00 pm	B110	Quantitative Assessment of Barrel Wear From Solid Copper Bullets <i>Natali Hassett, MS*; Eric Law, PhD</i>
5:00 pm – 5:20 pm	B111	A Quantitative Determination of Muzzle-to-Target Distance in Shooting Cases <i>Taqiyah Chernesky, MScFS*; Sophie Knier, MFS; Stephanie Walcott, MScFS; Emanuele Alves, PhD</i>
5:20 pm – 5:40 pm	B112	Close Non-Matches and Database Searches: How Often Can We Expect to See a True Match Among the K Highest Correlations? <i>Blanca Parker, BA*; Heike Hofmann, PhD; Alicia Carriquiry, PhD</i>

Thursday – Session III

Challenging Samples From Human Remains

8:30 am – 9:00 am	B113	Deep Ocean Recovery and DNA Identification of Human Remains From the Titan Submersible <i>Nancy Stokes, MSFS*; Taylor Dickerson, MSFS; John Walsh, MD; Timothy McMahon, PhD</i>
9:00 am – 9:15 am	B114	An Evaluation of DNA Recovery From Chemically Treated Human Remains <i>Jennifer Snedeker, BS*; Rachel Houston, PhD; Sheree Hughes, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
9:15 am – 9:30 am	B115	The Use of Mitochondrial DNA to Provide Ancestry of Skeletal Remains Discovered in the East Marshall Street Well (EMSW) <i>Martin MacStudy, BS*; Filipa Simao, PhD; Baneshwar Singh, PhD; Tal Simmons, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
9:30 am – 9:45 am	B116	An Optimized Demineralization Method Using Bone Slices for Improved DNA Recovery of 19th-Century Human Skeletal Remains <i>Ciara Rhodes, BS*; Reilly Price, MS; Celeste Willetts, BS; Tal Simmons, PhD; Sarah Seashols-Williams, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
9:45 am – 10:00 am	B117	Biparental and Uniparental Ancestry of the Unidentified Human Remains From the East Marshall Street Well <i>Christopher Twene, MS*; Filipa Simao, PhD; Baneshwar Singh, PhD; Tal Simmons, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>

CRIMINALISTICS

10:00 am – 10:15 am

BREAK

Forensic Investigations, NIST Libraries, and Source Identification

10:15 am – 10:30 am

B118 **Non-Destructive Brand Classification From Automobile Tire Rubber Traces Using ATR/FTIR Spectroscopy and Machine Learning for Forensic Investigations**
*Vishal Sharma, PhD**; *Akanksha Sharma, MS*

10:30 am – 10:45 am

B119 **The Development of a Protocol for the Elemental Analysis of Tire Marks in Road Crime Forensics**
*Matthieu Baudelet, PhD**; *John Lucchi, PhD*; *Micaela Hernandez, BS*; *Alex Curto, BA*

10:45 am – 11:05 am

B120 **The National Institute of Standards and Technology (NIST) Mass Spectral Reference Libraries**
*Edward Erisman, MS**

11:05 am – 11:30 am

B121 **The Development and Evaluation of a Contrastive Learning Framework for Source Identification: Technology for Transformation in the Interpretation of Forensic Data**
*Danica Ommen, PhD**; *Christopher Saunders, PhD*; *JoAnn Buscaglia, PhD*

11:30 am – 1:00 pm

BREAK

An Elusive Generalist, Measurement Uncertainty, Standards Implementation, and the Tyranny of Universal Standards

1:00 pm – 1:30 pm

B122 **The Curious Case of the Elusive Generalist**
*Sheila Willis, DSc**; *Michelle Miranda, PhD*

1:30 pm – 1:50 pm

B123 **The Implementation of a Uniform Approach to Determine Measurement Uncertainty in Routine Chemical Forensic Casework**
*Ivo Alberink, PhD**; *Ingrid Bosman, PhD*; *Marzena Glama, MS*; *Dick-Paul Kloos, PhD*; *Annette Sprong, BS*; *Camille van Dijk, MS*

1:50 pm – 2:10 pm

B124 **A Study of Standards Implementation Across the Forensic Sciences: Notes, Trends, and Future Directions**
*Vincent Desiderio, MS**; *John Paul Jones, MBA*; *Allison Getz, MS*; *Crystal DeGrange, MS*; *Mark Stolorow, MS, MBA*; *Steven Johnson, BS*

2:10 pm – 2:40 pm

B125 **Problematic Exclusionary Differences: The Tyranny of Universal Standards for Determining Exclusionary Differences**
*Janean Hanka, MS**; *JoAnn Buscaglia, PhD**; *Jack Hietpas, PhD*; *Danica Ommen, PhD*; *Christopher Saunders, PhD*

2:40 pm – 3:00 pm

BREAK

Friction Ridge Applications in Research and Practice I

3:00 pm – 3:20 pm

B126 **Standards Development Activities Related to Friction Ridge Examination**
*Heidi Eldridge, PhD**

3:20 pm – 3:40 pm

B127 **Forensic Lab's Phoenix Rise: The Remarkable Redemption of a Lost Latent Fingerprint Unit**
*Angelic Rountree, BS**; *Alice White, BS*

CRIMINALISTICS

3:40 pm – 4:00 pm	B128	Assessing the Performance of Fingerprint Laboratories Through Collaborative Exercises: The ENFSI Fingerprint Working Group Experience <i>Aldo Mattei, PhD*</i>
4:00 pm – 4:20 pm	B129	An Investigation of Fingermark Residue Components and Differentiation From Contaminants <i>Katelynn Perrault Uptmor, PhD*; Emma Macturk, BS</i>
4:20 pm – 4:30 pm		BREAK

Friction Ridge Applications in Research and Practice II

4:30 pm – 4:50 pm	B130	Developing Reproducible Protocols and Definitions for Selecting Combined Minutiae: Applications in Research and Practice <i>Adele Quigley-McBride, PhD*; Heidi Eldridge, PhD*; Brett Gardner, PhD</i>
4:50 pm – 5:10 pm	B131	Likelihood Ratios for Fingerprint and Palm Impressions <i>Thomas Busey, PhD*; Meredith Coon, MS</i>
5:10 pm – 5:30 pm	B132	One Size Does Not Fit All: Variations in Documenting the ACE-V Process Among Latent Print Examiners <i>Ivy Walker, MS*; John Grassel, MA; Micaela Ascolese, BA; Rebecca Shute, MS</i>
5:30 pm – 5:50 pm	B133	Visualizing and Enhancing Latent Fingerprints Using Different Floral Powders: An Eco-Friendly Approach <i>Kajol Bhati, PhD*; Amandeep Kaur Bhambara, PhD*; Ankit Singh, MSc; Rajeev Kumar, PhD; Vinny Sharma, PhD</i>

Friday

Poster Session

11:30 am – 1:00 pm	B134	Enhanced Genetically Variant Peptide Profiling From Human Hair Using Keratinase and Trypsin <i>Zheng Zhang, MD*; William Wallace, PhD; Stephen Stein, PhD</i>
11:30 am – 1:00 pm	B135	Developing Digital Polymerase Chain-Based Assays for the Detection and Speciation of Foodborne Illness <i>Sylvia Etim, MS*; Bruce McCord, PhD</i>
11:30 am – 1:00 pm	B136	Statistical Analysis of Fairness in Forensic Source Identification Problems <i>Semhar Michael, PhD*; Christopher Saunders, PhD</i>
11:30 am – 1:00 pm	B137	Enhancing the Number of Contributor Inference Using mtDNA Haplotypes for Mixture Deconvolution <i>Zack Beyerl, BS*; Nicole Mischak, BS*; Regan Fenske, BA; Helene Douglas, BS; Daniele Podini, PhD</i>
11:30 am – 1:00 pm	B138	Different True Allele Users, Same DNA Answer: A Multi-Center Proficiency Study <i>William Allan, MASc*; Jennifer Bracamontes, MS; Matthew Legler, BS; Jonathan Perlin, MS; Mark Perlin, MD, PhD</i>

CRIMINALISTICS

- 11:30 am – 1:00 pm **B139** **The Advancement and Practical Application of a Kinship Identification System Through the Exploration of Genetically Shared Chromosomal Regions Using High-Density SNP Data**
*Sohee Cho, PhD**; Eunsoon Shin, PhD; Yong-Seok Kim, PhD; Soong Deok Lee, MD, PhD
- 11:30 am – 1:00 pm **B140** **DNA Metabarcoding: Can It Reliably Be Used to Characterize Pollen From Surface Soils?**
*Kelly Meiklejohn, PhD**; Ozge Kuddar, MS; Benjamin Callahan, PhD; Christopher Bernhardt, PhD
- 11:30 am – 1:00 pm **B141** **An Analysis of DNA Preservation in Human Remains Embedded in Solid Building Materials**
*Hayle Boechler, BS**; Mayra Mayr-Eduardoff, PhD; Sheree Hughes, PhD
- 11:30 am – 1:00 pm **B142** **A Decade of ForenSeq in Forensics: Where Are We Now?**
*Laurence Devesse, PhD**; Melissa Kotkin, BS
- 11:30 am – 1:00 pm **B143** **Microhaplotypes: A Double-Edged Sword in Forensic Genetics**
*Pegah Farhadi, PhD**; Arash Alipourtabrizi, MD
- 11:30 am – 1:00 pm **B144** **Investigating a Different Forensic Workflow for DNA Paternity Testing**
*Franzoni Anna, MS**; Michele Rosso, PhD
- 11:30 am – 1:00 pm **B145** **Enhancing Rapid DNA Programs: Implementing a Metrics Tracker to Improve Performance and Measure Success**
*Emily Strelka, MFS**; Erin Forry, MS; Jason Chute, MSFS; Mikalaa Martin, BS; Misty Marra, MSFS; Patricia Melton, PhD; Shannon Krauss, PhD
- 11:30 am – 1:00 pm **B146** **Upgrading to STRmix v2.11: A Chance to Do It All Again**
*Ut Dinh, MS**; Alicia Cadenas, MS
- 11:30 am – 1:00 pm **B147** **The Application of Deep Learning in Latent Fingerprint Enhancement**
*Daye Kim, MS**; Ming-Sie Pan; Chao-Hsing Fan, PhD; Jorn Yu, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B148** **Elucidating the Mechanism of Unwanted and Uncontrolled Water Adducts in the Tandem Mass Spectra of Synthetic Cannabinoids**
*McKenna Oaks**; Christopher Poulos, MS; Emmanuel Ubana, BS; Fabien Goulay, PhD; Glen Jackson, PhD
- 11:30 am – 1:00 pm **B149** **Utilizing a Field-Deployable, High-Resolution Mass Spectrometry System for Screening of Seized Drugs by DART-MS Analysis**
*Elizabeth Robinson, MS**; Edward Sisco, PhD; Thomas Forbes, PhD
- 11:30 am – 1:00 pm **B150** **The Effect of Mass Spectral Selection on Discrimination of Fentanyl Analog Positional Isomers**
*Alexandra Rahn, BS**; Ruth Waddell Smith, PhD; Victoria McGuffin, PhD
- 11:30 am – 1:00 pm **B151** **Structural Characterization of Nitazene Analogs Using Electrospray Ionization- Tandem Mass Spectrometry (ESI-MS/MS)**
*Emma Hardwick, BA**; J. Tyler Davidson, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B152** **Fingerprint Evidence Analysis of Fraudulent Receipts in Taichung City, Taiwan**
*Yu-Chih Lin, PhD**; Pei-Yi Hua, MS; Chi-I Wu, MS; Chia-Chen Weng, MAS; Kuo-Lan Liu, MD, PhD
- 11:30 am – 1:00 pm **B153** **The Development and Validation of a New GC/MS Decision-Point Method for Marijuana and Hemp Differentiation Using Hydrogen as Carrier Gas**
*Agatha Villegas, BS**; Sandra Rodriguez-Cruz, PhD; Michael Weaver, BS

CRIMINALISTICS

11:30 am – 1:00 pm	B154	Evaluating the Performance of DEA's New GUARDS Method Via an Interlaboratory Study <i>Mark Frisch, PhD*</i> ; <i>Sandra Rodriguez-Cruz, PhD</i>
11:30 am – 1:00 pm	B155	Exploring Natural Aging and Depletion Processes of Latent Fingermarks With 2D and 3D Imaging <i>Alexandrea Buscarello, BS*</i> ; <i>Josep De Alcaraz-Fossoul, PhD</i>
11:30 am – 1:00 pm	B156	Utilizing Low Energy Ionization to Differentiate and Identify Fentanyl and Nitazene Analogs <i>Kirk Lokits, PhD*</i>
11:30 am – 1:00 pm	B157	The Development and Validation of a Combined Selected Ion Monitoring-Scan GC/MS Method for Nitazene Analogs <i>Alleigh Couch, BS*</i> ; <i>Emma Hardwick, BA</i> ; <i>Claire Phelps, MSFS</i> ; <i>J. Tyler Davidson, PhD</i> (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	B158	The Differentiation of Isobaric Methyl-Substituted Fentanyl Analogs Using Direct Analysis in Real-Time Mass Spectrometry (DART-MS) and All-Ion Fragmentation (AIF) <i>Christany Liggins, BS*</i> ; <i>Alleigh Couch, BS</i> ; <i>J. Tyler Davidson, PhD</i>
11:30 am – 1:00 pm	B159	Thermal Desorption-Direct Analysis in Real-Time Mass Spectrometry (TD-DART-MS) of Seized Drug Mixtures <i>Keshonna Towns, BS*</i> ; <i>Alleigh Couch, BS</i> ; <i>J. Tyler Davidson, PhD</i> (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	B160	An Evaluation of a Transportable Linear Ion Trap Mass Spectrometer for Rapid Seized Drug Screening <i>Fiza Tajdin, BS*</i> ; <i>Christina Chang, MS</i> ; <i>Alleigh Couch, BS</i> ; <i>J. Tyler Davidson, PhD</i> (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	B161	The Differentiation of CBD and Δ9-THC Isomers Using Copper Ion Complexation and Electrospray Ionization Tandem Mass Spectrometry <i>Alleigh Couch, BS*</i> ; <i>Christopher Zall, PhD</i> ; <i>J. Tyler Davidson, PhD</i> (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	B162	Enhancing Latent Print Development With Lanconide Powder <i>Lydia Buxa*</i> ; <i>Chad Snyder, PhD</i>
11:30 am – 1:00 pm	B163	A Modified and Optimized Duquenois Test for Classical and Designer Cannabis Products <i>Marie Lemay*</i> ; <i>Ryan Smith, BS</i> ; <i>Ling Huang, PhD</i> ; <i>Nanetter Wachter, PhD</i>
11:30 am – 1:00 pm	B164	Discriminating Between the Tandem Mass Spectra of Isomeric Synthetic Cannabinoids Using the Expert Algorithm for Substance Identification (EASI) <i>Alexandra Adeoye, MS*</i> ; <i>Alleigh Couch, BS</i> ; <i>J. Tyler Davidson, PhD</i> ; <i>Glen Jackson, PhD</i> (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	B165	An Analysis of <i>Mitragyna Hirsuta</i> and <i>Mitragyna Diversifolia</i> Being Offered as Legal Alternatives to Kratom <i>Megan Joos, BS*</i> ; <i>Elizabeth Gardner, PhD</i>
11:30 am – 1:00 pm	B166	The Development of a Virtual Liquid Chromatography Method Development Tool <i>Haley Berkland, MS*</i>

CRIMINALISTICS

- 11:30 am – 1:00 pm **B167** **The Drug Enforcement Administration’s Basic Forensic Chemist Training Program Becomes the First Forensic Training Program Accredited by the Federal Law Enforcement Training Accreditation Board**
*Jessica Rasmussen, MS**
- 11:30 am – 1:00 pm **B168** **The Development and Testing of a Novel Sorbent Material for Headspace Analysis With Application to Illicit Drugs**
Sadie Olrogg, BS; Lauryn DeGreeff, PhD; Joongho Moon, PhD*
- 11:30 am – 1:00 pm **B169** **The Optimization of Fast Blue B Test for Cannabis Products**
Ryan Smith, BS; Marie Lemay*; Ling Huang, PhD*
- 11:30 am – 1:00 pm **B170** **The Detection and Quantitation of Xylazine, Medetomidine, and Detomidine as Adulterants to Heroin or Illicitly Manufactured Fentanyl Using NanoLC With Various Mass Spectrometers**
Mehdi Moini, PhD; Brian Eckenrode, PhD*
- 11:30 am – 1:00 pm **B171** **The Development of an LC/MS/MS Method for the Identification of Psilocybin and Psilocin From Seized Drugs**
Alexia Cassman, BS; Kristen Head, MS*
- 11:30 am – 1:00 pm **B172** **DSI-GC/MS Analysis of Designer Cannabis Gummies**
Hannah LaVena; Kevin Bisceglia, PhD; Ling Huang, PhD*
- 11:30 am – 1:00 pm **B173** **GC/VIR Technology in Seized Drug Analysis**
*Sherri Tupik, BS**
- 11:30 am – 1:00 pm **B174** **WITHDRAWN**
- 11:30 am – 1:00 pm **B175** **The Development and Optimization of a Method for the Quantitation of Seized Drugs Using Rapid Gas Chromatography/Mass Spectrometry**
Marissa Ho, BS; Briana Capistran, PhD; Edward Sisco, PhD; Ira Lurie, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **B176** **WITHDRAWN**
- 11:30 am – 1:00 pm **B177** **WITHDRAWN**
- 11:30 am – 1:00 pm **B178** **The Proliferation of Nitazenes in the United States Drug Market: Examining Powders and Counterfeit Tablets**
Mia Borrelli, MS; Sarah Shuda, MS; Amanda Mohr, MS; Thom Browne, MA; Barry Logan, PhD*
- 11:30 am – 1:00 pm **B179** **A Discovery of False Positive Illicit Drug Identification With Portable Surface- Enhanced Raman Spectroscopy (SERS)**
Ella Galvan; Desmond Brown; Don Ostrowski, APM; Richard Crocombe, PhD; Pauline Leary, PhD; Brooke Kammrath, PhD*
- 11:30 am – 1:00 pm **B180** **Illicit Drug Analysis in the Field With a Portable Instrument “Toolkit”**
Brooke Kammrath, PhD; Desmond Brown; Ella Galvan; Samuel Friday, BS; Drew Kuroda, BS; Alexander Klein, BS; Jessica Persechino, MA; Jessica Behn, BS; Jon Naples; Debbie Fuller; Isabelle Radgen-Morvant, MS; Richard Crocombe, PhD*

CRIMINALISTICS

11:30 am – 1:00 pm	B181	Optimizing Extraction Methods for Cannabinoid Quantitation in Cannabis Gummies: A Comparative Study Using LC-PDA <i>Ya-Chih Cheng, PhD*</i> ; <i>Walter Wilson, PhD</i>
11:30 am – 1:00 pm	B182	The Presumptive Identification of Psilocybin and Psilocyn in Mushrooms and Food Products Using Matrix-Assisted Ionization Vacuum (MAIV) and Time-of- Flight/Mass Spectrometry (TOF/MS) <i>Maci Koester, BS*</i> ; <i>Deborah Brimijoin, MS</i> ; <i>Jennifer Clary, MS</i> (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	B183	A Green Method for Seized Drug Analysis Using a Portable Liquid Chromatograph <i>Jayda Barber, BS*</i> ; <i>Ira Lurie, PhD</i>
11:30 am – 1:00 pm	B184	Drug Detection in Complex Materials Using Confocal Raman Microspectroscopy <i>Natasha Wheatley, MPA*</i> ; <i>Kenzie Ballinger, BS*</i>
11:30 am – 1:00 pm	B185	The Identification of Isobutane Hash Oil (IBHO), an Uncommon Cannabis Product Seized for the First Time by the Brazilian Federal Police <i>Alcir Gomes, PhD*</i> ; <i>Eduardo Bruck, BS</i>

Friday—Session I

Mixtures and Probabilities

8:00 am – 8:30 am	B186	Back to the Future: Applying Decades-Old Probabilistic Models to Today's DNA Results When Activities Are of Interest <i>Simone Gittelson, PhD*</i> ; <i>Franco Taroni, PhD</i> ; <i>Tim Kalafut, PhD</i> ; <i>John Buckleton, DSc</i>
8:30 am – 8:45 am	B187	The Construction of a Microhaplotype Panel for Complex Mixture Deconvolution Using Next-Gen Sequencing <i>Regan Fenske, BA*</i> ; <i>Sarah Cavanaugh, MSFS</i> ; <i>Helene Douglas, BS</i> ; <i>Daniel Standage, PhD</i> ; <i>Robert Lagace, BA</i> ; <i>Andrew Feldman, PhD</i> ; <i>Jeffrey Lin, MS</i> ; <i>Kenneth Kidd, PhD</i> ; <i>Daniele Podini, PhD</i> (FSF Emerging Forensic Scientist Award Oral Presentation)
8:45 am – 9:00 am	B188	DNA Evidence Analysis Using the Same Number of Contributors for Prosecution and Defense Will Often Frame a Non-Contributing Suspect <i>Charles Brenner, PhD*</i>
9:00 am – 9:15 am	B190	Touch/Trace DNA in Activity-Level Propositions: Anatomy of a DNA Transfer <i>Ashley Hall, PhD*</i> ; <i>Ray Wickenheiser, DPS</i> ; <i>Aldrin Alviar, MS</i>
9:15 am – 9:30 am	B189	The Development of Universal STRmix™ Parameters for Legacy Kits <i>Tim Kalafut, PhD*</i>
9:30 am – 10:00 am	B191	Evaluating the Consistency of a DNA Mixture Interpretation Protocol <i>Joseph Truppi, BS*</i> ; <i>Mario Galioto, MS</i> ; <i>Michael Donley, MS</i> ; <i>Katie Welch, MS</i>
10:00 am – 10:15 am		BREAK

CRIMINALISTICS

Looking Back and Moving Forward

10:15 am – 10:45 am	B192	A Perspective on More Than 30 Years of Forensic DNA Research and Technology Development <i>Bruce McCord, PhD*</i>
10:45 am – 11:00 am	B193	From Planning to Practice: Navigating the Implementation of Rapid DNA Technology and \ Tracking Success Metrics <i>Jason Chute, MSFS*; Patricia Melton, PhD; Emily Strelka, MFS; Erin Forry, MS; Mikalaa Martin, BS; Misty Marra, MSFS; Shannon Krauss, PhD</i>
11:00 am – 11:15 am	B194	A Sensitivity Evaluation of the Applied Biosystems RapidHIT ID System v2.0 and RapidINTEL Plus Sample Cartridge <i>Emily Yen Dang, BS*; Morgan Eaton, MS; Raygan Harrington, BS; Tracey Dawson Green, PhD (FSF Emerging Forensic Scientist Award Oral Presentation)</i>
11:15 am – 11:30 am	B195	An Assessment of the RapidHIT ID System v2.0 for Use on Evidentiary Samples and Its Suitability for Implementation Into Law Enforcement <i>Trupti Sriram, BS*; Jamia Mealy, MFS; Kristen Naughton, BS</i>
11:30 am – 1:00 pm		BREAK

How Low Can (Should) We Go?

1:00 pm – 1:15 pm	B196	An Analysis of Pre- and Post-Coital Microbial Transfer Using Deep Shotgun Metagenomic Studies <i>Andrea Ramirez Torres, BS*; Mirna Ghemrawi, PhD; George Duncan, PhD; Bruce McCord, PhD</i>
1:15 pm – 1:30 pm	B197	Exploring the World of “Touch DNA” and “Touch Microbiome”: One-Shot DNA Collection and Extraction <i>Michele Di Nunzio, PhD*; Sarah Gino, MD; Andrea Bonicelli, PhD; Noemi Procopio, PhD</i>
1:30 pm – 1:45 pm	B198	Size-Selective Purification to Separate High and Low Molecular Weight DNA <i>Vinalon Mones, BS*; Helene Douglas, BS; Glenn Fahrig, MS; Gregory Peiffer, PhD; Rebecca Sloman, MFS; Katherine Hargett, MFS; Jessica Broner, MS; Jonathan King, MS; Elaine Lewis, PhD; Michael Coble, PhD; Todd Bille, MS; Daniele Podini, PhD</i>
1:45 pm – 2:00 pm	B199	Probabilistic Clustering of Single-Cell Investigative Evaluations <i>Qhawe Bhembe, MSFS*; Nidhi Sheth, PhD; Leah O’Donnell, MS; Ken Duffy, PhD; Desmond Lun, PhD; Catherine Grgicak, PhD (FSF Emerging Forensic Scientist Award Oral Presentation)</i>
2:00 pm – 2:15 pm	B200	The Comparison and Evaluation of Predictors on Single-Cell Weights of Evidence <i>Catherine Grgicak, PhD*; Desmond Lun, PhD</i>
2:15 pm – 2:30 pm	B201	Low-Level DNA Recovery From Fired Cartridge Casings, Firearms, and Explosive Devices: Comparing Conventional Methods and Sequencing-Based DNA Typing <i>Mirna Ghemrawi, PhD*; Leah Nangeroni, MS</i>
2:30 pm – 2:45 pm	B202	Getting More From Less: Low-Level DNA Mixtures on Cartridges <i>Kari Danser, MS*; Jennifer Bracamontes, MS; Matthew Legler, BS; Mark Perlin, MD, PhD</i>

CRIMINALISTICS

2:45 pm – 3:00 pm **B203** **Integrated On-Chip PCR-Capture-Sizing-CE Microsystems for Ultrasensitive Forensic DNA Typing**
*Xiujun Li, PhD**

3:00 pm – 3:15 pm **BREAK**

Administration and Planning

3:15 pm – 3:45 pm **B204** **So, You Want a Job in Forensic Science? Getting Hired as a Forensic Scientist From the Hiring Manager's Perspective**
Matthew Gamette, MS; Rylene Nowlin, BS**

3:45 pm – 4:15 pm **B205** **The Role of the National Technology Validation Implementation Collaborative (NTVIC) in Forensic Technology Implementation**
*Matthew Gamette, MS**

4:15 pm – 4:35 pm **B206** **A National Survey and Interviews on Training in Forensic Science Service Laboratories in the United States Evaluative Report**
*Kelly Elkins, PhD**

4:35 pm – 5:05 pm **B207** **Planning for and Executing a Disaster Response: The Rapid DNA Mass Disaster Emergency Response and Preparedness Toolkit**
Mikalaa Martin, BS; Taylor Koepfler, MSFS; Jason Chute, MSFS; Shannon Krauss, PhD; Laura Kuyper, MFS; Katie Scott, MSFS; Jeri Roper-Miller, PhD*

Friday—Session II

A Morning of Trace Materials—Standards, Soils, Glass, Paint, and Textiles

8:15 am – 8:35 am **B208** **Standards Development Activities in Trace Materials**
Sandra Koch, PhD; Celeste Grover, MSFS*

8:35 am – 8:55 am **B209** **Differentiating Soil by Color and Mineralogy for Soil Comparisons: An Experiment Using Soil From North Carolina**
Libby Stern, PhD; Hannah Dickson, MS; Jodi Webb, MS; Kelly Meiklejohn, PhD; Jack Hietpas, PhD; Ian Saginor, PhD; Michael Smith, PhD*

8:55 am – 9:15 am **B210** **Soil Discrimination by Particle-Correlated Raman Spectroscopy**
Drew Kuroda, BS; Jasmine Kaur, MFS; Joshua Christensen; Marisia Fikiet, PhD; Peter Harrington, PhD; Peter De Forest, DCrim; Brooke Kammrath, PhD*

9:15 am – 9:35 am **B211** **An Elemental Analysis of Glass Powder on Spent Projectiles**
Shirly Montero, PhD; Summer Garcia*

9:35 am – 9:55 am **B212** **Data Fusion From Infrared, Elemental, MSP, and Raman Analysis Techniques to the Maximization of the Efficiency of the Analytical Sequence for the Forensic Examination of Paint Evidence**
Patrick Buzzini, PhD; Morgan Carpenter, BS; Swathi Murali, MS; James Curran, PhD*

CRIMINALISTICS

9:55 am – 10:15 am **B213** **Wait, Hot Cooking Oil Turned Your Shirt From Green to Orange?**
*Tiffany Rodriguez, MS**; *William Perdue, MPA*

10:15 am – 10:30 am **BREAK**

The River's Silent Witness, Chemometric Approaches, and Clandestine Human Burials

10:30 am – 10:50 am **B214** **Skeleton in the Stream: Unraveling the Murder Mystery of the River's Silent Witness**
*Akhilesh Pathak, MD**

10:50 am – 11:10 am **B215** **Chemometric Approaches for Investigating Multiblock Hyperspectral Data in Forensic Biological Evidence Analysis**
*Eugenio Alladio, PhD**; *Alberto Mazzoleni, MS*; *Carolina Scagliarini, MS*;
Paolo Garofano, MD, PhD

11:10 am – 11:30 am **B216** **A Layered Analytical Method for Detecting Clandestine Human Burials**
*Brian Eckenrode, PhD**; *Edward Bentil, PhD*

11:30 am – 1:00 pm **BREAK**

An Afternoon of Fire Debris, Explosives, and GSR

1:00 pm – 1:20 pm **B217** **Standards Development Activities Related to Ignitable Liquids, Explosives, and Gunshot Residue**
*Brenda Christy, MS**

1:20 pm – 1:40 pm **B218** **The Validation of a Rapid GC/MS Method for Forensic Fire Debris Screening Applications**
*Briana Capistran, PhD**; *Elizabeth Robinson, MS*; *Edward Sisco, PhD*

1:40 pm – 2:00 pm **B219** **An Application of the Expert Algorithm for Substance Identification (EASI) to Predict ASTM E1618-19 Ignitable Liquid Classes From Gas Chromatography/Mass Spectrometry Data of Ignitable Liquid Residues**
*Hannah McMillen, MS**; *Glen Jackson, PhD*

2:00 pm – 2:20 pm **B220** **Revealing Gunshot Residue Flow and Deposition Behaviors Using Laser Sheet Scattering, High-Speed Videography, Atmospheric Particle Analysis, and Spectrometric Analytical Techniques**
*Thomas Ledergerber, BS**; *Matthew Staymates, MS**; *Kourtney Dalzell, MS*; *Luis Arroyo, PhD*;
Roger Jefferys, MS; *Tatiana Trejos, PhD*

2:20 pm – 2:40 pm **B221** **An Assessment of the Transfer and Persistence of Gunshot Residue in Simulated Arrest Scenarios Analyzed by Screening and Confirmatory Methods**
*Kourtney Dalzell, MS**; *Thomas Ledergerber, BS*; *Leah Thomas, BS*; *Addio Fiordigigli, BS*;
Tatiana Trejos, PhD; *Luis Arroyo, PhD*

2:40 pm – 3:00 pm **BREAK**

CRIMINALISTICS

Drug Chemistry Standards, Developments, and Applications

- 3:00 pm – 3:15 pm **B222** **Standard Development Activities in Seized Drug Analysis: The Current Status and Challenges**
*Agnes Winokur, PhD**
- 3:15 pm – 3:30 pm **B223** **Tracking the Emergence of Medetomidine, Tetracaine, and Other Substances as Adulterants in Philadelphia, Pennsylvania, Recreational Opioid Markets**
Max Denn, MS; Joshua DeBord, PhD; Alexis Quinter, MASc; Alex Krotulski, PhD; Barry Logan, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 3:30 pm – 3:45 pm **B224** **A Systematic Study of Liquid Chromatography in Search of the Best Separation of Cannabinoids for Potency Testing of Hemp-Based Products**
*Liguo Song, PhD**
- 3:45 pm – 4:00 pm **B225** **Sample Preparation Procedures at NIST for the Determination of Δ 9-THC and Its Isomers in Commercial and Seized Cannabis Vape Products by GC/MS**
Walter Wilson, PhD; Ya-Chih Cheng, PhD*
- 4:00 pm – 4:15 pm **B226** **The Development of a Δ 9-THC Colorimetric Breathalyzer Using 3D Printing Manufacture**
Savanah Allinson, BS; Taqiyah Chernesky, MScFS; Aron Jaffe, MScFS; Stephanie Walcott, MScFS; Emanuele Alves, PhD*
- 4:15 pm – 4:30pm **B227** **Psilocin Derivatives in Edibles: Issues, Extraction Tips, and Case Studies**
H. Ross Ehmman, MSFS; Oriana Ovide, MSFS*
- 4:30 pm – 4:50 pm **B228** **The Application of the Expert Algorithm for Substance Identification (EASI) to Differentiate Tandem Mass Spectra of 2,3-MDMA and 3,4-MDMA**
Glen Jackson, PhD; Alexandra Adeoye, MS; Sandra Rodriguez-Cruz, PhD*
- 4:50 pm – 5:10 pm **B229** **Standardizing and Implementing Direct Analysis in Real Time-Mass Spectrometry Methods Throughout DEA Laboratories**
*Sandra Rodriguez-Cruz, PhD**
- 5:10 pm – 5:30 pm **B230** **The Development and Validation of the Global Uniform Analysis and Reporting of Drug-Related Substances (GUARDS) Method**
Michael Weaver, BS; Sandra Rodriguez-Cruz, PhD; Mark Frisch, PhD; Corey Nida, PhD*

DIGITAL & MULTIMEDIA SCIENCES

Thursday

Quality: Quintessential or Questionable?

- | | | |
|-------------------|-----------|--|
| 8:10 am – 8:30 am | C1 | A Framework for Systematic Error Mitigation for Digital Evidence
<i>Eoghan Casey, PhD*</i> |
| 8:30 am – 8:50 am | C2 | NoSQL Database Forensics: An Analysis of Redis Logs
<i>Muhammad Abdul Moiz Zia, BCS*; Oluwasola Mary Adedayo, PhD*</i> |
| 8:50 am – 9:10 am | C3 | Reimagining the Forensic Pipeline Out of Necessity
<i>Mark Guido, MS*; Justin Grover, MS*</i> |
| 9:10 am – 9:30 am | C4 | Bias in Bytes: Practitioner Awareness in Digital Forensics
<i>Chris Shennan, MASc*</i> |
| 9:30 am – 9:50 am | | BREAK |

IMobile Devices: Movable Mastery or Manipulating Minds?

- | | | |
|---------------------|-----------|---|
| 9:50 am – 10:10 am | C5 | A Forensics Investigation of the Social Networking Application: Tencent QQ on iOS and Android
<i>Yufeng Gong, MS*; Umit Karabiyik, PhD*</i> |
| 10:10 am – 10:30 am | C6 | A Story of Obsession: Data Analysis of a Stalker's Mobile Phone Device
<i>Nicole Odom, MSFS*</i> |
| 10:30 am – 10:50 am | C7 | ImageRec: A Tool for Android In-Memory Code Reconstruction
<i>Aisha Ali-Gombe, PhD*</i> |
| 10:50 am – 11:10 am | C8 | The Reliability of Confidence Factors in iPhone GPS Data for Forensic Applications
<i>Jeff Rutherford, BS*; Romy Haas, BA; Danielle Ponce de Leon, BS</i> |
| 11:10 am – 11:30 am | C9 | Using TikTok Around the World: A Comparison and Updated Forensic Analysis of TikTok on Android and iOS
<i>Xiao Hu, MS*; Umit Karabiyik, PhD*</i> |
| 11:30 am – 1:10 pm | | BREAK |

Internet of Things (IoT): Integrating or Isolating?

- | | | |
|-------------------|------------|---|
| 1:10 pm – 1:30 pm | C10 | A Forensic Analysis of Google Fit App on WearOS
<i>Chen Shi, MS*; Yong Guan, PhD</i> |
| 1:30 pm – 1:50 pm | C11 | Unveiling Sleep Patterns: Insights From Garmin FIT Protocol Data
<i>Nina Matulis, MS*; Jenna Rockhold, BS*; Marcus Rogers, PhD*; Umit Karabiyik, PhD*</i> |
| 1:50 pm – 2:10 pm | C12 | Utilizing Smart Watches in Forensic Science: A Case Study on Verifying Witness Statements and Tracking Drug Ingestion
<i>Ashraf Mozayani, PhD*</i> |

DIGITAL & MULTIMEDIA SCIENCES

2:10 pm – 2:25 pm **BREAK**

Computers: Creating or Curtailing?

- 2:25 pm – 2:45 pm **C13** **DarkWeb Investigations Using Offensive Security Techniques**
*Gabriel Nunes, BS**
- 2:45 pm – 3:05 pm **C14** **The Combination of Non-Obvious Links in Online Fraud Investigations**
Timothy Bollé, MS; Eoghan Casey, PhD; Thomas Souvignet, PhD*
- 3:05 pm – 3:25 pm **C15** **Principles of Locality of Reference: A Proposal to Reduce the Scope of Forensic Analysis in Cases Occurring in the Cyber Environment**
*Gustavo Vilar, MS**
- 3:25 pm – 3:40 pm **BREAK**

Tools and Standards: Testing or Trusting?

- 3:40 pm – 4:00 pm **C16** **Is It a Transformation? Is It Tyranny? Is It Even Cost Effective? The Value of Independent S
oftware Testing Your Technology**
*Marc Canellas, PhD**
- 4:00 pm – 4:20 pm **C17** **The Limitations of Digital Forensics Tools for Database System Examination**
Bhavye Malhotra, BS; Oluwasola Mary Adedayo, PhD**
- 4:20 pm – 4:40 pm **C18** **Standards Development Activities in Digital and Multimedia Forensic Science**
*Tracy Walraven, MFS**

Friday

Biometrics: Building Boundaries or Bridges?

- 8:20 am – 8:40 am **C19** **Facial Identification Scientific Working Group Update**
*Nicole Spaun, PhD**
- 8:40 am – 9:00 am **C20** **An Update on the Status of a Facial Identification Certification Program**
*Steven Johnson, BS**
- 9:00 am – 9:20 am **C21** **Distinguishing Head Poses From Camera Angles in Non-Frontal Images for Automated
Face Identification**
Petra Urbanova, PhD; Tomas Goldmann, PhD*
- 9:20 am – 9:40 am **C22** **A Global Interlaboratory Study: Assessing Consistency of Source Opinions for Face,
Hands, and Clothing Image Pairs**
Kelly Meiklejohn, PhD; Chau-Wai Wong, PhD; Melissa Scheible, MFS; Jane Harris, PhD;
Christina Malone, MSFS; Lora Sims, AS*

DIGITAL & MULTIMEDIA SCIENCES

9:40 am – 10:00 am

BREAK

Multimedia: Managing Morally or Maliciously Misleading?

- 10:00 am – 10:20 am **C23** **An Evaluation of Interpolation Methods and Their Impact on Resizing Images: Is the Nearest Neighbor Algorithm the Best Solution in All Situations?**
*Jason Latham, MS**; *Douglas Lacey, MS*
- 10:20 am – 1:40 am **C24** **Identifying Social Media Video Provenance Through Forensic Structural Analysis**
*Clarissa Tan, MS**; *Brandon Epstein, MS**; *Bertram Lyons, MA**
- 10:40 am – 11:00 am **C25** **The Application of Likelihood Ratios to Audio Authentications: Selected Preliminary Results**
*James Zjalic, MS**
- 11:00 am – 11:20 am **C26** **Keeping Up With the Times: Are Standards Meeting the Needs of Rapidly Expanding Technology in Forensic Multimedia Analysis?**
*Christina Malone, MSFS**; *Wendy Dinova-Wimmer, BS**
- 11:20 am – 1:10 pm **BREAK**

Artificial Intelligence (AI): Advancing or Alarming?

- 1:10 pm – 1:30 pm **C27** **Detecting Generative AI Through the Structural Analysis of Multimedia Files**
*Nicole Odom, MSFS**
- 1:30 pm – 1:50 pm **C28** **Artificial Intelligence for Image and Video Forensics: Mine of Information or Minefield?**
*Marco Fontani, PhD**; *Martino Jerian, MS*; *Blake Sawyer, BBA*
- 1:50 pm – 2:10 pm **C29** **Deepfake Detection: Technology as a Tool for Transformation or Tyranny**
*Zeno Geradts, PhD**
- 2:10 pm – 2:30 pm **C30** **Leveraging Artificial Intelligence for Advancements in Forensic Science: The AI4Forensic Lab**
*Zeno Geradts, PhD**
- 2:30 pm – 2:50 pm **C31** **The Development of a Responsible AI Framework Suitable for Forensic Science Needs**
*Janet Stacey, MS**; *Deepak Karunakaran, PhD*; *Rachel Fleming, PhD*; *Dion Sheppard, MS*
- 2:50 pm – 3:10 pm **BREAK**

Behind the Screen: Benevolent Brainstorming or Bad Behavior?

- 3:10 pm – 3:30 pm **C32** **Attitudes Toward and Barriers to Mental Health Support for Digital & Multimedia Forensic Examiners**
*Sonali Tyagi, MS**; *Kathryn Seigfried-Spellar, PhD**
- 3:30 pm – 3:50 pm **C33** **Emerging Ethical and Technical Challenges in Digital Profiling**
*Chad Steel, PhD**; *Angel Morningstar, MS**

DIGITAL & MULTIMEDIA SCIENCES

- 3:50 pm – 4:10 pm **C34** **Exploring Fantasy Enactment and Self-Disclosure Themes in Offender-to-Offender Communication: A Comparative Study of Adult and Peer-to-Peer Groomer Digital Evidence**
*Reeya Ramasamy**; *Tatiana Ringenberg, PhD**; *Kathryn Seigfried-Spellar, PhD**
- 4:10 pm – 4:30 pm **C35** **Proactive Detection of Child Sexual Abuse Material: Predicting Victim Risk From App Usage, Media Content, and Messaging Behaviors**
*Nina Matulis, MS**; *Kathryn Seigfried-Spellar, PhD**; *Marcus Rogers, PhD**

ENGINEERING & APPLIED SCIENCES

Thursday

Poster Session

- 11:30 am – 1:00 pm **D1** **A Study on the Application of a Thermal Mannequin for Estimating a Hypothermia Environment**
*Chan-Seong Park, PhD**
- 11:30 am – 1:00 pm **D2** **Active Air Sampling and Quantitation of Methyl Methacrylate During Controlled Pyrolysis of Poly(Methyl Methacrylate)**
Kaylee Morton, MSFS; Mahsa Lotfi Marchoubeh, PhD*
- 11:30 am – 1:00 pm **D3** **An Examination and Analysis of False Negative in Presumptive Blood Testing Methods on Leather**
*Sarahy Magdaleno, MSFS**

Thursday—Session I

Sample Analysis and Forensic Detection

- 8:00 am – 8:20 am **D4** **Failure Analysis of Ink Samples Using Multiple Modes of Pyrolysis-Gas Chromatography/Mass Spectrometry (Py-GC/MS)**
*Athena Nguyen, BS**
- 8:20 am – 8:50 am **D5** **Light It Up! Photoluminescent Lead Detection for Forensic Investigations**
Kendra Adelberg, MS; Arno van der Weijden, PhD; Lukas Helmbrecht, PhD; Arian van Asten, PhD; Wim Noorduyn, PhD*
- 8:50 am – 9:20 am **D6** **Seeing the Invisible: Flow Visualization and Scientific Imaging Techniques to Support Safety, Security, and Forensics**
Matthew Staymates, MS; Edward Sisco, PhD*
- 9:20 am – 9:40 am **D7** **Odorant Depletion in Propane Containers**
*Tim Dunn, MS**
- 9:40 am – 9:55 am **BREAK**
- 9:55 am – 10:15 am **D8** **Synthetic Routes for the Production of Xylazine: An Analysis of Clandestine Viability**
*Calvin Keller, PhD**
- 10:15 am – 10:45 am **D9** **Forensic Exams of Public Works Contracts: Ethical and Just Methodologies in Pavement Works Investigation**
Victor Zoch, BEng; Alan Lopes, PhD; Bruno Lima, MS*
- 10:45 am – 11:15 am **D10** **An Economic Valuation of Environmental Damages Caused by Illegal Artisanal Mining in the Brazilian Yanomami Indigenous Territory**
David Pavanelli, PhD; Uilian Mello, MS; Rai Cunha, BS; Rommel Pereira, BA; Erich Lima; Mauro Magliano, PhD*
- 11:15 am – 1:00 pm **BREAK**

ENGINEERING & APPLIED SCIENCES

Collision/Forensic Analysis

1:00 pm – 1:30 pm	D12	A Race Car Accident Analysis <i>Berislav Barisic-Jaman, MEng*</i>
1:30 pm – 1:50 pm	D13	A Forensic Analysis of Unintended Vehicle Rollaway Incidents <i>Chris Clarke, BSME*;</i> <i>Brian Herbst, BSME*</i>
1:50 pm – 2:10 pm	D14	The Role of Early Assumptions in Driver Determination for an Unwitnessed Motor Vehicle Crash <i>David Porta, PhD*</i>
2:10 pm – 2:25 pm		BREAK
2:25 pm – 2:55 pm	D15	Roof System Failure: Causes and Misconceptions <i>Darren Franck, MSME*;</i> <i>Harold Franck, MSEE</i>
2:55 pm – 3:40 pm	D16	The Analysis of Vehicle Dynamics From Monitor Playback Recordings <i>Michael Callahan, BSME*;</i> <i>Sean Snyder, BS*</i>
3:40 pm – 4:10 pm	D17	Forensic Mapping With a Real-Time Kinematics-Equipped Drone (UAS/UAV), With or Without Ground Control? <i>David Sersen, BSEE*</i>

Thursday—Session II

Multidisciplinary Session: Engineering & Applied Sciences and Forensic Nursing Science

1:00 pm – 1:30 pm	D18	Accidental or Deliberate? Can a Safety Razor Inflict Injuries to a Baby in a Bathtub? <i>Sarah Hainsworth, PhD*</i>
1:30 pm – 2:00 pm	E8	Alternate Light Sources in Subclinical Bruising: A Systematic Review <i>Maureen Canellas, MD*;</i> <i>Jennifer Edwards, MD</i>
2:00 pm – 2:30 pm	D19	An Analysis of Injuries and Injury Mechanisms of Male PMHS in High-Speed, Rear-Facing Frontal Impact Scenarios <i>John Bolte, IV, PhD*;</i> <i>Amanda Agnew, PhD;</i> <i>Yun-Seok Kang, PhD</i>
2:30 pm – 2:45 pm		BREAK
2:45 pm – 3:15 pm	E9	Revolutionizing Forensic Nursing Education: The Impact of Virtual Reality, Artificial Intelligence, and Performance Data Analytics <i>Jamie Ferrell, MBA, BSN, RN*;</i> <i>Sally Henin, MD</i>
3:15 pm – 3:45 pm	D20	Empirical Testing of a Trip-Fall Incident <i>Darren Franck, MSME*;</i> <i>Harold Franck, MSEE</i>
3:45 pm – 4:15 pm	D21	A Windshield Fracture Incident: Injury-Producing Event or Just Cracked Glass? <i>Michelle Hoffman, MS*;</i> <i>Kurt Weiss, MS</i>

ENGINEERING & APPLIED SCIENCES

Friday

Poster Session

- 11:30 am – 1:00 pm **D22** **The Impact of Artificial Intelligence in Clinical Risk Management: A Focus on Fall Prevention**
*Paolo Visci, MD**; *Elena Graziano, MD*; *Michele Telegrafo, MD*; *Annachiara Vinci, MD*;
Fiorenza Zotti, MS; *Alessandro Dell’Erba, MD, PhD*; *Davide Ferorelli, MD*
- 11:30 am – 1:00 pm **D23** **The Role of Engineering in Forensic Science: Physics Applied in a Case of Hemorrhagic Shock From Central Venous Catheter Blood Loss**
*Gabriella Maisetta, MD**; *Federica Spina, MD**; *Ilaria Marcacci, MD**; *Julia Lazzari, MD*;
Giulia Berneschi, MD; *Luigi Papi, MD*; *Paolo Maremmani, MD*; *Fabio Giannelli, BSN*;
Alessandro Mariotti, PhD
- 11:30 am – 1:00 pm **D24** **The Use of Stationary Phases Designed for Supercritical Fluid Chromatography for the Reversed-Phase Liquid Chromatographic Separation of Nine Isomers of Δ^9 -Tetrahydrocannabinol**
*Gunnar Franz, BS**; *Ira Lurie, PhD*; *Walter Wilson, PhD*
- 11:30 am – 1:00 pm **D25** **Augmented Reality Visualization for Postmortem Analysis of a Traffic Accident: Clarification of Injury Mechanism Through PMCT-Based Antemortem Posture Reconstruction**
*Haruki Fukuda, MD, PhD**; *Akira Hayakawa, MD, PhD*; *Hiroyuki Tokue, MD, PhD*;
Rie Sano, PhD; *Yoshihiko Kominato, MD, PhD*

Linguistics/Artificial Intelligence

- 8:00 am – 8:45 am **D26** **Environmental Signature Extraction for Forensic Analysis of Audio Recordings Using AI/LLM Models**
*Lucky Onyekwelu-Udoka, MS**; *Yong Guan, PhD*
- 8:45 am – 9:15 am **D27** **Quantitative Similarity Assessments of Forensic Images**
*Gautham Venkatasubramanian, MS**; *Alicia Carriquiry, PhD*
- 9:15 am – 9:35 am **D28** **Kumho, Engineering, and the Linguistics of Definitions**
*Jeffrey Holmes, JD**; *Carole Chaski, PhD*
- 9:35 am – 9:55 am **D29** **A Tool to Quickly Estimate Uncertainty of a Forensic Test**
*Alessandro Ferrero, MS**; *Veronica Scotti, JD*
- 9:55 am – 10:10 am **BREAK**
- 10:10 am – 10:30 am **D30** **Artificial Intelligence Tools Applied to Forensic Engineering Cases: Overcoming This Challenge Through an Academic Cooperation Program**
*Jose Medeiros, DSc**; *Thiago Albuquerque, MS*; *Sandro Torres, PhD*; *Lucidio Cabral, DSc*;
Marçal Lima Filho, PhD; *Gilberto Sousa Filho, DSc*; *Bruno Leitão, BEng*
- 10:30 am – 10:50 am **D31** **Falsely Accused: Generative AI and the Allegation of Academic Plagiarism**
*Carole Chaski, PhD**

ENGINEERING & APPLIED SCIENCES

- 10:50 am – 11:10 am **D32** **Weaknesses of Artificial Intelligence Proxies of Topic for Forensic Linguistic Applications**
*Elizabeth Smith, PhD**; *Cristina Aggazzotti, PhD*; *Nicholas Andrews, PhD*
- 11:10 am – 11:30 am **D33** **A Computational Method for Detecting Sophisticated Plagiarism**
*Carole Chaski, PhD**
- 11:30 am – 11:50 am **D34** **Analyzing Generative AI’s Truth-Bias in Deceit Detection: An Empirical Experiment in English and Spanish**
*Ángela Almela, PhD**

FORENSIC NURSING SCIENCE

Thursday

Morning Session

8:00 am – 8:25 am	E1	Transforming Forensic Nursing Documentation and Enhancing Patient Outcomes Through Electronic Health Record Technology <i>Jamie Ferrell, MBA, BSN, RN*; Gillian Alexander, MBA; Sally Henin, MD</i>
8:25 am – 8:50 am	E2	Mitigating the Risk: Navigating the Legal and Ethical Challenges of Forensic Nursing Photography <i>Cheryl Wier, MSN*</i>
8:50 am – 9:15 am	E3	Variability in Uploaded CODIS Profiles From Sexual Assault Kits <i>Julie Valentine, PhD*; Matthew Gamette, MS*; Leslie Miles, DNP</i>
9:15 am – 9:40 am	E4	The Development of Serial Gaming for Forensic Nurses to Advance Disaster Training <i>Thiago Augusto da Silva, PhD*; Joyce Williams, PhD*; Thais Kneodler, PhD; Ronaldo Modesto; Ester da Silva; Débora Fernanda Haberland, PhD; Alexandre De Oliveira, PhD</i>
9:40 am – 9:55 am		BREAK
9:55 am – 10:20 am	E5	The Importance of Selection Areas for the Collection of Sexual Assault Evidence From the Oral Cavity <i>Janine Kishbaugh, MSFS*; Lawrence Quarino, PhD; Brianna Gregory, MSFS</i>
10:20 am – 10:45 am	E6	An Analysis of Police-Led Jail Diversion Programs in Massachusetts: Evaluating Efficacy and Proposing Enhanced Crisis Response Models <i>Victor Petreca, PhD*; Joanne Barros, PhD</i>
10:45 am – 11:10 am	E7	Responding to Sexual Violence in the LGBTQIA+ Community <i>Russell Rooms, DNP*</i>
11:10 am – 1:00 pm		BREAK

Multidisciplinary Session: Engineering & Applied Sciences and Forensic Nursing Science

1:00 pm – 1:30 pm	D18	Accidental or Deliberate? Can a Safety Razor Inflict Injuries to a Baby in a Bathtub? <i>Sarah Hainsworth, PhD*</i>
1:30 pm – 2:00 pm	E8	Alternate Light Sources in Subclinical Bruising: A Systematic Review <i>Maureen Canellas, MD*; Jennifer Edwards, MD</i>
2:00 pm – 2:30 pm	D19	An Analysis of Injuries and Injury Mechanisms of Male PMHS in High-Speed, Rear-Facing Frontal Impact Scenarios <i>John Bolte, IV, PhD*; Amanda Agnew, PhD; Yun-Seok Kang, PhD</i>
2:30 pm – 2:45 pm		BREAK
2:45 pm – 3:15 pm	E9	Revolutionizing Forensic Nursing Education: The Impact of Virtual Reality, Artificial Intelligence, and Performance Data Analytics <i>Jamie Ferrell, MBA, BSN, RN*; Sally Henin, MD</i>

FORENSIC NURSING SCIENCE

3:15 pm – 3:45 pm	D20	Empirical Testing of a Trip-Fall Incident <i>Darren Franck, MSME*[*]; Harold Franck, MSEE</i>
3:45 pm – 4:15 pm	D21	A Windshield Fracture Incident: Injury-Producing Event or Just Cracked Glass? <i>Michelle Hoffman, MS*[*]; Kurt Weiss, MS</i>

Friday

Morning Session

8:00 am – 8:25 am	E10	Beyond the Numbers: Investigating Homicide Risk Factors for Indigenous Women and Girls <i>Emily Pudvah, BA*[*]; Victor Petreca, PhD*[*]; Courtney Hoblock, DNP*[*]; Elizabeth Dowdell, PhD; Ann Burgess, DNSc</i>
8:25 am – 8:50 am	E11	Changes in Patient Pain Post-Medical Forensic Examination <i>Isabel Jaimes, BSFS*[*]; Abimbola Famurewa, MPH; Nancy Downing, PhD; Jenny Black, BSN</i>
8:50 am – 9:15 am	E12	Forensic Nursing Science: The Practice of Virginitiy Testing <i>Venera Mehmeti, BS*[*]</i>
9:15 am – 9:40 am	E13	Enhancing Equitable Access to Quality Forensic Sexual Assault Care: The SAFE-T System Telehealth Model <i>Sheridan Miyamoto, PhD*[*]; Jocelyn Delgado Spicuzza, PhD; Jennifer Delwiche, PhD</i>
9:40 am – 9:55 am		BREAK
9:55 am – 10:20 am	E14	Mitigating Bias in Sexual Assault Evidence Collection Kit Analysis <i>Omotinuola Okesanjo, BS*[*]; Nancy Downing, PhD</i>
10:20 am – 10:45 am	E15	The Reality of Intimate Partner Violence in Piedmont, Italy: The Challenges Posed by the Frequency and Severity of Violence and the Proposals to Combat It <i>Sarah Gino, MD*[*]; Paola Castagna, MD, PhD; Stefano Cenati, BS; Giulia Facci, MS; Elena Rubini, MA; Edit Shahi, MD; Daniele Radicioni, PhD; Paola Torrioni, PhD; Georgia Zara, PhD</i>
10:45 am – 11:15 am	E16	What About the Swabs? A Retrospective Review of DNA Analysis Findings From Sexual Assault Kit Evidence <i>Julie Valentine, PhD*[*]; Leslie Miles, DNP*[*]; Luke Johnson, BS*[*]; Connor Alder, BS; Brian Brown, MS; Andrew Criddle, BS</i>
11:15 am – 1:00 pm		BREAK

Afternoon Session

1:00 pm – 1:20 pm	E17	The Experiences of Child Advocacy Center Staff on Child Abuse and Neglect: A Qualitative Study <i>Ayşe Gürol, PhD*[*]; Feride Şahin, RN</i>
1:20 pm – 1:40 pm	E18	Rewrite the Law? Everyone Is (Not) Equal Under the Law <i>Valeria Kaegi, RN*[*]; Michael J. Thali</i>

GENERAL

Wednesday

Poster Session

- 11:30 am – 1:00 pm **F1** **A Small Molecule Chemical Analysis of Residual Odor From Odor Recognition Test by Human Remains Canine Teams**
*Shawn Campagna, PhD**; *Zane Vickery, BS*; *Katarina Jones, PhD*; *Hector Castro, PhD*; *Dawnie Steadman, PhD*; *Mary Cablk, PhD*; *Mary Davis, MS*; *James Ha, PhD*
- 11:30 am – 1:00 pm **F2** **An Analysis of Hidden Childhood Exposure to Xenobiotics in Cases of Child Abuse: A Decade-Long Study at the Meyer Children’s Hospital IRCCS of Florence, Italy**
*Martina Focardi, MD**; *Marta Romanelli, MD**; *Valentina Gori, MD**; *Fabio Vaiano, PhD*; *Andrea Costantino, MD*; *Beatrice Defraia, MD*; *Rossella Grifoni, MD*; *Ilenia Bianchi, PhD*; *Laura Nanni, MD*; *Stefania Losi, MD*; *Vilma Pinchi, PhD*
- 11:30 am – 1:00 pm **F3** **An Interdisciplinary Review of Standard Operating Procedures Among United States-Accredited Laboratories**
*Marion Davidson, MS**; *Jeff Kukucka, PhD*; *Brett Gardner, PhD*; *Allysha Winburn, PhD*; *Kayla A. Burd, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **F4** **The Development and Identification of a Thin Layer Chromatography Procedure for the Rapid Identification of Cannabis Plants Through Its Major Cannabinoids**
*Amadeo Pérez, MD**; *Elena Gonzalez-Burgos, PhD*; *Teresa Pérez, PhD*; *Maria Pieri, PhD*; *Pascale Basilicata, PhD*; *Dolores Serrano, PhD*; *Michele Di Nunzio, PhD*
- 11:30 am – 1:00 pm **F5** **Does Technology Weaken the Fight for a Fair Trial? Modern Policing and Challenges of the Criminal Defense Investigation**
*Briana Verdoorn, MA**
- 11:30 am – 1:00 pm **F6** **Eye in Crime Scene Investigation**
*Sushil Bhatt, MS**; *Jagmahender Singh Sehrawat, PhD*
- 11:30 am – 1:00 pm **F7** **WITHDRAWN**
- 11:30 am – 1:00 pm **F8** **From Flat Photos to 3D Wonders: Cutting-Edge Tech Is Changing Forensic Investigations**
*Giulia Berneschi, MD**; *Rebecca Maggi, MD**; *Chiara Ariani, MD**; *Giacomo Visi, MD*; *Eleonora Mezzetti, MD*; *Marco Di Paolo, MD*; *Marika Floris*
- 11:30 am – 1:00 pm **F9** **Long-Term DNA Stability on Buccal Swabs: Findings From Simulated Paternity Cases**
*Franzoni Anna, MS**; *Michele Rosso, PhD*
- 11:30 am – 1:00 pm **F10** **Protecting Arson Investigators From Exposure to Toxic and Hazardous Substances in Fire Scene Debris**
*Abdulrhman Dhabbah, PhD**

GENERAL

Thursday

Poster Session

- 11:30 am – 1:00 pm **F11** **Multiple Firearm Wound Suicides in Maryland: A Ten-Year Look Back**
*Jenaye Mack, MD**; *Nicholas Boire, MD*; *Joseph Mininni, MD*; *Stephanie Dean, MD*
- 11:30 am – 1:00 pm **F12** **Northern Microbes Tell a Story: Human Decomposition Influences on the Soil Microbiome in the Upper Peninsula of Michigan**
*Mandy Joslyn, MS**; *Jane Harris, PhD*; *Josh Sharp, PhD*
- 11:30 am – 1:00 pm **F13** **Optimizing DNA Retrieval for Insect Identification From Specimens Prepared for Morphological Analysis**
*Riley Hoffman, BS**; *Nicholas Miller, PhD*
- 11:30 am – 1:00 pm **F14** **Sparks and Burns: A Histological Study on the Effect of Firework Explosions on Pig Skin**
*Naomi Iacoponi, MD**; *Matteo Leoni, MD*; *Rebecca Maggi, MD*; *Gabriella Maisetta, MD*; *Chiara Casula, MD*; *Paride Minervini*; *Marco Di Paolo, MD*
- 11:30 am – 1:00 pm **F15** **The Detection of Pharmaceutical and Illicit Drugs in Municipal Wastewater Using Gas Chromatography/Mass Spectrometry**
*Will Harris, BS**; *Ellen Mwenesongole, PhD*
- 11:30 am – 1:00 pm **F16** **The Development of LAMP-ICS and FastPCR-ICS of Human/Male Multiplex Assay for Rapid On-Site Screening**
*Yujin Oh, BS**; *Hakrae Lee, BS*; *Yebin Kim, BS*; *Yeju Kim, BS*; *Si-keun Lim, PhD*
- 11:30 am – 1:00 pm **F17** **The Impact of Sound Suppressors on Gunshot Residue Deposition**
*Kathryne Hartung, BS**; *Alexis Moser, BA*; *Jennifer Turner, MSFS*
- 11:30 am – 1:00 pm **F18** **The Impact of Storage and Container Options for Human Remains Detection Training Aids**
*Daigoro Greco, BS**
- 11:30 am – 1:00 pm **F19** **The Popularity of Biometrics in India, Along With the Challenges**
*Ramandeep Kaur, MS**; *Mukesh Kumar Thakar, PhD*
- 11:30 am – 1:00 pm **F20** **The Prevalence of DNA on Car Vehicles for Guidance in Collecting Samples**
*Joshua Boster, BS**; *Kathryn Schoeneberg*; *Jennifer McMurray, MS*; *Madison Myers, BS*; *Jeremy Chappell, BA*
(FSF Emerging Forensic Scientist Award Poster Presentation)

Thursday—Session I

Evidence Identification

- 8:30 am – 8:45 am **F21** **A Highly Portable and Ultra-Sensitive Platform for Rapid Forensic Identification of Wildlife Species**
*Nidhi Subhashini, PhD**
- 8:45 am – 9:00 am **F22** **A High-Throughput, Multi-Biochemical Analysis of Pollen Grains for Their Identification in a Forensic Context**
*Jack Trimble, BS**; *Kaitlyn Cierpik*; *Camron Melendez*; *James McAleer*; *Matthieu Baudelet, PhD*

GENERAL

9:00 am – 9:15 am	F23	A Universal Method for Biological Stain Identification Using Raman Spectroscopy: An Investigation of Potential False Positives <i>Igor Lednev, PhD*</i> ; <i>Luis Perez Almodovar, BS</i> ; <i>Lenka Halámková, PhD</i>
9:15 am – 9:30 am	F24	Considerations for Fieldable Drug Detection and Identification by High Resolution Mass Spectrometry <i>Thomas Forbes, PhD*</i> ; <i>Elizabeth Robinson, MS</i> ; <i>Edward Sisco, PhD</i> ; <i>Abigail Koss, PhD</i>
9:30 am – 9:45 am	F25	Investigating Odor Signatures of Electronic Storage Devices <i>Samuel Friday, BS*</i> ; <i>Jon Naples</i> ; <i>Pauline Leary, PhD</i> ; <i>Marisia Fikiet, PhD</i> ; <i>Alyssa Marsico, PhD</i> ; <i>Brooke Kammrath, PhD</i>
9:45 am – 10:00 am	F26	Sustainable Wood Sourcing and Species Identification Through ATR/FTIR Spectroscopy and Machine Learning in Forensic Applications <i>Akanksha Sharma, MS*</i> ; <i>Vishal Sharma, PhD</i>
10:00 am – 10:15 am		BREAK

Thermal Related

10:15 am – 10:30 am	F27	Finding the Ignition Source in Burned Bones: A Forensic Research Investigation <i>Caighley Logan*</i> ; <i>Suzanne McColl, PhD</i>
10:30 am – 10:45 am	F28	Postmortem Thermal Injuries Due to Muzzle Flash Ignition <i>Mariana Voudouri, MD*</i>
10:45 am – 11:00 am	F29	Pyrolysis Products Obtained From Household Substrates at Crime Scenes: An Analytical Challenge for Forensic Fire Investigation Experts <i>Khalid Feras, MS*</i> ; <i>Tahir Jamshaid, MPhil*</i>
11:00 am – 11:15 am	F30	The Detection of Accelerants (Petrol and White Spirit) From Cadaver Flies That Fed on Spiked Meat <i>Tolulope Bayode Abejide, MS*</i> ; <i>David Alebiosu, PhD</i>
11:15 am – 11:30 am	F31	The Refinement of a Thermodynamic Model to Explain the Weathering Patterns of Ignitable Liquids on Household Substrates at Elevated Temperatures <i>Chaney Ganninger, BS*</i> ; <i>Glen Jackson, PhD</i>
11:30 am – 1:00 pm		BREAK

AI Technology

1:00 pm – 1:15 pm	F32	Advancing AI-Enhanced Topic Modeling With BERT in Forensic Text Analysis <i>Amir Alipour Yengejeh, MCS*</i> ; <i>Larry Tang, PhD</i>
1:15 pm – 1:30 pm	F33	AI-Enabled Systems and Applications in Forensic Science: A Landscape Analysis and Future Directions <i>Melissa Taylor, BA*</i> ; <i>Henry Swofford, PhD</i> ; <i>Niki Osborne, PhD</i>
1:30 pm – 1:45 pm	F34	Artificial Intelligence, Forensic Science, and the Criminal Justice System: New Challenges and Ethical Implications for Innovative Technologies <i>Giuseppina Seppini, MSN*</i> ; <i>Iolanda Ippolito, MS</i>

GENERAL

1:45 pm – 2:00 pm	F35	Lessons Learned From the Development of Sexual Assault Kit Evidence Machine Learning Models <i>Julie Valentine, PhD*</i> ; <i>Luke Johnson, BS*</i> ; <i>Leslie Miles, DNP</i> ; <i>Brian Brown, MS</i> ; <i>Connor Alder, BS</i> ; <i>Andrew Criddle, BS</i>
2:00 pm – 2:15 pm	F36	The Application of Artificial Intelligence in Medicolegal Assessments <i>Giada Rovito, MD*</i> ; <i>Matilde Ruju, MD*</i> ; <i>Luca Diani, MD*</i> ; <i>Irene Pradelle, MD</i> ; <i>Laura Camilla Gasparini, MD</i> ; <i>Felice Carabellese, MD</i> ; <i>Margherita Neri, MD, PhD</i>
2:15 pm – 2:30 pm	F37	The European AI Act: A Risk-Based Approach to Regulating AI <i>Veronica Scotti, JD*</i>
2:30 pm – 2:45 pm	F38	Technology: A Tool for Transformation of Data Element Exchange in Specialized Types of Medicolegal Death Investigations <i>Kelly Keyes, BS*</i> ; <i>Erica Fornaro, BS</i> ; <i>Jeri Roper-Miller, PhD</i>
2:45 pm – 3:00 pm	F39	The Impact of Automated Asylum Determination Processes on Asylum Applicants Subjected to Acts of Torture <i>Hasna Sheikh, LLM*</i> ; <i>Elspeth Guild</i> ; <i>Nikolas P. Lemos, PhD</i>
3:00 pm – 3:15 pm		BREAK

Standards

3:15 pm – 3:30 pm	F40	Developing Standards and Risk Management Profiles for the Responsible Adoption of Artificial Intelligence in Forensic Science <i>Niki Osborne, PhD*</i> ; <i>Melissa Taylor, BA</i> ; <i>Reva Schwartz, MA</i>
3:30 pm – 3:45 pm	F41	Improving Polygraph Screening Examinations With Computerized Scoring Algorithms and Minimum Data Standards <i>James O'Burke, MS*</i>
3:45 pm – 4:00 pm	F42	The Benefits and the Challenges of an Independent Crime Lab <i>Alesia Wheeler-Moore, MA*</i> ; <i>Erin Price, BS</i>
4:00 pm – 4:15 pm	F43	The District of Columbia (DC) Department of Forensic Sciences: A Fall From Grace and a Path Back to Accreditation <i>Jennifer Love, PhD*</i> ; <i>Francisco Diaz, MD*</i>
4:15 pm – 4:30 pm	F44	Washington, DC, Department of Forensic Sciences (DFS): A Unique Approach to Developing Impactful, Strategic Testing Plans While Minimizing Cognitive Bias <i>Samira Taylor, BS*</i>
4:30 pm – 5:00 pm	F45	The National Institute of Justice Research and Development Program <i>Lucas Zarwell, MSFS*</i>

GENERAL

Thursday – Session II

Identification

8:30 am – 8:45 am	F46	A Photograph of a Partially Skeletonized Finger Confirms Positive Identification: A Case Study <i>Emily King, BA*</i> ; <i>Carrie Costello, MS</i>
8:45 am – 9:00 am	F47	Overlooking the Utility of the Tattoo as an Investigatory Lead: Comparing Tattoo Documentation Practices Among Investigators and Medical Examiners <i>Deanna Corsetti, BS*</i> ; <i>Marcelle Morin, MS</i> ; <i>Michelle Miranda, PhD</i>
9:00 am – 9:15 am	F48	A Study in Distortion on Determining Latent Print Classification <i>Kevin Parmelee, PhD*</i> ; <i>Charu Arya, MBA</i>
9:15 am – 9:30 am	F49	DNA Identification: Lessons Learned From the Largest Mass Casualty Event in Israel's History <i>Nurit Bublil, PhD*</i>
9:30 am – 9:45 am	F50	Seasonal Patterns of Fly-Associated <i>Ignatzschineria</i> in Human Decomposition- Impacted Soils <i>Lois Taylor, PhD*</i> ; <i>Allison Mason, PhD</i> ; <i>Jennifer DeBruyn, PhD</i>
9:45 am – 10:00 am	F51	A Preliminary Study: The Application of 3D Models, Simulations, and Finite Element Analysis (FEA) in Shooting Reconstruction <i>Baillie Poulton, MS*</i> ; <i>Keith Morris, PhD</i>
10:00 am – 10:15 am		BREAK

Cases

10:15 am – 10:30 am	F52	A Couple of Air Fresheners Ought to Do the Trick! A Case Report on Human Remains Found in an Occupied Residence After Ten Years <i>Robert Hunkeler, MFS*</i> ; <i>James Fannin, AS</i> ; <i>Kent Harshbarger, MD</i>
10:30 am – 10:45 am	F53	Cigarette Butt DNA Solves a 30-Year-Old Homicide Cold Case: A Case Study <i>Megan Collins*</i> ; <i>Carrie Costello, MS</i>
10:45 am – 11:00 am	F54	In the Wrong Place at the Wrong Time <i>Andra Lewis, PhD*</i>
11:00 am – 11:15 am	F55	When All You Have Is a Foot <i>Lara Newell, MA*</i>
11:15 am – 11:30 am	F56	Shots Fired! The Escalating Rise of Violence Against Law Enforcement by Youth Street Gangs After the COVID-19 Pandemic <i>Cliff Akiyama, MPH, MA*</i>
11:30 am – 1:00 pm		BREAK

GENERAL

Education

1:00 pm – 1:15 pm	F57	A Simple Water Laboratory Experiment to Teach Students Good Laboratory Practices and Quality Assurance <i>Tamra Legron Rodriguez, PhD*</i> ; <i>Charoltte Disney</i> ; <i>Dana-Marie Dennis, PhD</i>
1:15 pm – 1:30 pm	F58	CSixR: Creating a Virtual Reality CSI Application <i>David Fisher, MS*</i> ; <i>Kevin Parmelee, PhD*</i> ; <i>Margarita Vinnikov, PhD</i> ; <i>Michael Kehoe, BS</i>
1:30 pm – 2:00 pm	F59	Evaluating the Scientific Validity of Forensic Methods: Guidelines for Study Design and Analysis <i>Michael Rosenblum, PhD*</i> ; <i>Maria Cuellar, PhD*</i> ; <i>Susan Vanderplas, PhD</i> ; <i>Amanda Luby, PhD</i>
2:00 pm – 2:15 pm	F60	Examining Social Belonging and Connectedness in an Online Forensic Science Course <i>Gina Londino-Smolar, EdD*</i>
2:15 pm – 2:30 pm	F61	Project-Based Learning in Undergraduate Forensic Chemistry: Standards Development and Professional Practice <i>April Hill, PhD*</i>
2:30 pm – 3:00 pm	F62	Using Virtual Reality in Crime Scene Education, Training, and Proficiency Testing <i>Susan Blankenship, DBA*</i>
3:00 pm – 3:15 pm		BREAK

Miscellaneous

3:15 pm – 3:45 pm	F63	Grizzlies, Guns, and Glaciers: Interesting National Park Deaths <i>Tatiana Bihun, MD*</i> ; <i>Joseph Prahlow, MD</i> ; <i>Cristin Rolf, MD</i> ; <i>Richard Sine, BA</i> ; <i>Amy Schaefer, BA</i> ; <i>Kenneth Gallagher, MD</i> ; <i>Gary Zientek, MD</i> ; <i>Karen Cline-Parhamovich, DO</i>
3:45 pm – 4:00 pm	F64	PHD ETDC—The Forensic Reconstruction Methodology: A Scientific Process to Solve Cases and Avoid Wrongful Convictions <i>Carlos Gutierrez Ayala, DFS*</i>
4:00 pm – 4:15 pm	F65	Video Technology for Training and Testimony Preparation <i>Alaina Anderson, MS*</i> ; <i>James Miller, MA</i> ; <i>Mona Colca, BA</i>
4:15 pm – 4:30 pm	F66	How Research Improves Public Crime Lab Efficiency and Accuracy: The National Institute of Justice-Sponsored Outcomes <i>Tracey Johnson, MSFS*</i>
4:30 pm – 4:45 pm	F67	Old Legal Frameworks and New Technologies: The Baltimore, Maryland, Experience <i>Andrew Northrup, JD*</i>

GENERAL

Friday

Poster Session

-
- | | | |
|--------------------|------------|---|
| 11:30 am – 1:00 pm | F68 | The Stability and Variability of the Korean Saliva Microbiome Over a Period of Time
<i>Ha-Eun Cha, BS*</i> ; <i>Hye-Seon Cho, BS</i> ; <i>Ji-woo Lee, BS</i> ; <i>A-Jeong Jeon, BS</i> ; <i>Jooree Seo, BS</i> ; <i>Si-keun Lim, PhD</i> |
| 11:30 am – 1:00 pm | F69 | The State of Forensic Science in India: Progress and Pitfalls
<i>Moin Ahmad Butt, MS*</i> ; <i>Mukesh Kumar Thakar, PhD</i> |
| 11:30 am – 1:00 pm | F70 | The Will to Conceal the Evidence? A Suspicious Case of a Restraint-Related Death That Occurred in the Hospital
<i>Federica Spina, MD*</i> ; <i>Giacomo Visi, MD*</i> ; <i>Chiara Casula, MD*</i> ; <i>Chiara Ariani, MD*</i> ; <i>Gabriella Maisetta, MD*</i> ; <i>Luigi Papi, MD</i> |
| 11:30 am – 1:00 pm | F71 | You Take My Breath Away! An Unusual Case of Uxoricide-Suicide by Double Choking
<i>Michela Ferrara, MD*</i> ; <i>Natascha Pascale, MD, PhD*</i> ; <i>Aldo di Fazio, PhD*</i> ; <i>Mariagrazia Calvano, MD</i> ; <i>Giuseppe Bertozzi, MD</i> ; <i>Mauro Ciavarella, MD</i> |
| 11:30 am – 1:00 pm | F72 | An Efficacy Catalytic Hydrated Photo-Oxidation Tool in Reducing Biocontaminants During Autopsy Procedures: A Pilot Study
<i>Francesco Sessa, PhD*</i> ; <i>Martina Francaviglia, MD*</i> ; <i>Maria Paola Pinacchi, MD*</i> ; <i>Massimiliano Esposito, MD</i> |
| 11:30 am – 1:00 pm | F73 | Child Abuse or an Accident? The Role of the Forensic Expert in Pediatric Emergency Departments: A Case Series
<i>Manoj Parchake, MD*</i> |
| 11:30 am – 1:00 pm | F74 | Sodium Nitrite Poisoning: “Suicide Kits” Sold on the Internet
<i>Madelyn Kinneary, MS*</i> ; <i>Sophia Garcia-Jackson, MS</i> ; <i>Erica Williams, MD</i> |
| 11:30 am – 1:00 pm | F75 | The First Fingerprint Conviction: Argentina’s Historic 1892 Fingerprint Case
<i>Jeff Teitelbaum, MA*</i> |
| 11:30 am – 1:00 pm | F76 | Combating Sexual- and Gender-Based Violence: A Crucial Imperative in the Great Lakes Region of Africa
<i>Edwin Huffine, MS*</i> ; <i>Dora Byamukama, LLM</i> |
| 11:30 am – 1:00 pm | F77 | WITHDRAWN |

Friday – Session I

Standards

-
- | | | |
|-------------------|------------|---|
| 8:30 am – 9:00 am | F78 | An Update on Forensic Science Standards Within the Crime Scene Investigation Disciplines
<i>Michael Kessler, PSM*</i> ; <i>Charles DeFrance, MFS</i> |
| 9:00 am – 9:15 am | F79 | Progress on Developing Dogs and Sensors Standards: Sniffing Out Success
<i>Kenneth Furton, PhD*</i> ; <i>Paola A. Prada-Tiedemann, PhD</i> ; <i>Suzanne Perry, BA</i> |

GENERAL

9:15 am – 9:30 am	F80	Standards Development Activities in Medicolegal Death Investigation, Including Disaster Victim Identification <i>Kelly Keyes, BS*</i> ; <i>Michelle Rippy, EdD</i>
9:30 am – 9:45 am	F81	Standards Development Activities in Wildlife Forensic Biology <i>Jason Byrd, PhD*</i> ; <i>Christina Lindquist, MSFS*</i>
9:45 am – 10:00 am	F82	Washington, DC, Department of Forensic Sciences: Achieving Accreditation Through Collaboration <i>Krystyna Hopkinson, MSFS*</i> ; <i>Timothy Scanlan, PhD</i>
10:00 am – 10:15 am		BREAK

Case Related

10:15 am – 10:30 am	F83	A Facial Perspective Atlas: A Tool to Assist Morphological Facial Comparisons <i>Katie Pottage, MS*</i> ; <i>James Zjalic, MS</i>
10:30 am – 10:45 am	F84	Forensic Reconstruction and Forensic Taphonomy: An Experiment for a High-Profile Case Conducted for the First Time in Chile <i>Carlos Gutierrez Ayala, DFS*</i>
10:45 am – 11:00 am	F85	The Sad Story of Two Young Lovers: The Truth Lies in the Details <i>Giovanni De Gabriele, MD*</i> ; <i>Antonio Marzaioli, MD</i> ; <i>Angela Colucci, MD</i> ; <i>Sara Di Trani, MD</i> ; <i>Alessandro Cristalli, MD</i> ; <i>Enrica Macorano, MD</i> ; <i>Francesco Introna, MD, PhD</i>
11:00 am – 11:15 am	F86	Combating Wrongful Murder Statements With Technology: A Wrongful Conviction Case Study <i>Kevin Parmelee, PhD*</i>
11:15 am – 11:30 am	F87	Forensic Sciences as an Instrument for Improving the Lives of Populations: A Multidisciplinary Theoretical-Practical Case Study in Brazil <i>Marcio Fernandes, PhD*</i> ; <i>Caroline D'Oca, PhD</i> ; <i>João Resende, PhD</i>
11:30 am – 1:00 pm		BREAK

Technology

1:00 pm – 1:15 pm	F88	Electric Vehicles: A Technological Firestorm <i>Stacey Chepren, MS*</i>
1:15 pm – 1:30 pm	F89	Leveraging Analytical Chemistry and Advanced Flow Visualization for the Evaluation of Canine Training Aid Containment Systems <i>Shawna Gallegos, PhD*</i> ; <i>Matthew Staymates, MS*</i>
1:30 pm – 1:45 pm	F90	A Validation of Inkjet Printing Methodology in the Development of Non-Detonable Explosive Training Aids <i>Shawna Gallegos, PhD*</i>
1:45 pm – 2:00 pm	F91	Investigating Nuisance Alerts Given by Canines Arising From Substrates Exposed to Composition C-4 <i>Himanshi Upadhyaya, MS*</i> ; <i>Alexis Hecker, MS</i> ; <i>John Goodpaster, PhD</i>

GENERAL

2:00 pm – 2:20 pm	F92	Micro-CT Imaging and 3D Laser Scanning as Tools for Evidence Presentation in Court <i>Sofia Goia, PhD*</i> ; <i>Charlotte Primeau, PhD</i> ; <i>Mark Williams, PhD</i>
2:20 pm – 2:40 pm	F93	The Effects of a Bullet on the Motion and Distribution of Unburnt Gunshot Residue Particles <i>Lauren White, BS*</i>
2:40 pm – 3:00 pm	F94	Process Maps: The Beginning of a Technological Revolution for Fire Investigations <i>Terry-Dawn Hewitt, LLM*</i>
3:00 pm – 3:15 pm		BREAK

Identification—Genealogy and Wildlife

3:15 pm – 3:30 pm	F95	Forensic Genetic Genealogy: An Emerging Tool for Identification in Transnational Missing Persons Cases <i>Aline Minervino, MS*</i> ; <i>Laura Cainé, PhD</i>
3:30 pm – 3:45 pm	F96	Watkins Who?: The Use of Forensic Genealogy in a Medical Examiner’s Cold Case <i>Alex Verdoorn, BA*</i>
3:45 pm – 4:00 pm	F97	The Development and Validation of the EX38 Kit: A Comprehensive Forensic Tool for Enhanced Genetic Identification <i>Atif Adnan, MD, PhD*</i>
4:00 pm – 4:15 pm	F98	Wildlife Forensic Proteomics: Approaches and Applications <i>Ashley Spicer, MS*</i> ; <i>Nicole Slattengren, MS</i> ; <i>Kyle Burk, MS</i> ; <i>Glendon Parker, PhD</i>
4:15 pm – 4:45 pm	F99	You Can Get DNA Conclusions From That?: Case Studies Involving Animal DNA <i>Christina Lindquist, MSFS*</i> ; <i>Teri Kun, MSFS</i>

Friday—Session II

Coroners

8:30 am – 8:45 am	F100	Safeguarding the Community: Rewriting the Narrative on the Modern Coroner in Today’s Society <i>Brett Harding, MBA*</i> ; <i>Christina Di Loreto, MD</i> ; <i>Jessica Macdonald, MA</i> ; <i>Richard Riffle, BS</i>
8:45 am – 9:00 am	F101	Technological Advances to Medical Examiner and Coroner Case Management Systems <i>Carri Cottengim, MA*</i> ; <i>Mark Montgomery, MPH</i> ; <i>Margaret Warner, PhD</i>
9:00 am – 9:15 am	F102	Technology Use Among the Nation’s Medical Examiner and Coroner Offices: A Snapshot <i>Jeri Roper-Miller, PhD*</i> ; <i>Kelly Keyes, BS</i> ; <i>Connor Brooks, MA, MSc</i> ; <i>Micaela Ascolese, BA</i> ; <i>Liat Weinstein, BA</i> ; <i>Hope Smiley-McDonald, PhD</i>
9:15 am – 9:30 am	F103	How Local Coroner/Medical Examiners Can Contribute to Advancing Forensic Science <i>David Kintz, BS*</i>
9:30 am – 9:45 am	F104	Cell Phones—Can They Replace Advanced Digital Cameras in Medicolegal Scene Photography Investigations? <i>Rachael Landrie, BS*</i> ; <i>Francisco Diaz, MD</i>

GENERAL

9:45 am – 10:00 am **F105** **Navigating the Challenges: The Struggle of Medicolegal Death Investigations in Sparsely Populated Regions**
Michelle Rippy, EdD;* *Kelly Keyes, BS*

10:00 am – 10:15 am **BREAK**

More Coroners

10:15 am – 10:45 am **F106** **Mass Fatality on a Budget**
*Robert Hunkeler, MFS**

10:45 am – 11:00 am **F107** **“We Specialize in the Heartbreakers”: Practitioner Perspectives on Investigating Long-Term Unidentified Persons Cases Throughout the United States**
*Molly Kaplan, MA**

11:00 am – 11:15 am **F108** **Abuse or Self-Neglect? A Medicolegal Case Study Exploring Multi-Agency Failure to Report a Vulnerable Adult**
*Ella Butler, MS**

11:15 am – 11:30 am **F109** **Cases of Child Abuse and Maltreatment: A Retrospective Observational Study From Meyer Children’s Hospital IRCCS of Florence, Italy, Between 2010 and 2022**
Martina Focardi, MD;* *Andrea Costantino, MD*;* *Marta Romanelli, MD;*
Valentina Gori, MD; *Beatrice Defraia, MD;* *Rossella Grifoni, MD;* *Ilenia Bianchi, PhD;*
Laura Nanni, MD; *Stefania Losi, MD;* *Vilma Pinchi, PhD*

11:30 am – 1:00 pm **BREAK**

Miscellaneous

1:00 pm – 1:15 pm **F110** **Bridging the Gap: Collaborative Programs and Initiatives That Are Transforming the Interface Between Forensic Science and the Legal System**
Caitlin Porterfield, MS;* *Mark McCoy, EdD*;* *Jennifer Schmitz, JD**

1:15 pm – 1:30 pm **F111** **Forensic Intelligence: A Contemporary Application or How to Approach a Paradigm Shift**
*Joe Trevino, MS**

1:30 pm – 1:45 pm **F112** **The Unexpected Role of Pacemaker Data in Solving a Homicide: A Case Study**
Emily King, BA;* *Carrie Costello, MS*

1:45 pm – 2:00 pm **F113** **“Follow the Bloodstains and Find the Truth”—The Importance of Site Inspection**
Chiara Casula, MD;* *Naomi Iacoponi, MD*;* *Damiano Marra, MD;* *Giulia Berneschi, MD;*
Julia Lazzari, MD

2:00 pm – 2:15 pm **F114** **Is Forensic Chemistry Different?**
*Max Houck, PhD**

2:15 pm – 2:45 pm **F115** **A Comparison of Particulate Collection Methods Using Fluorescent Polyethylene Beads and an Introduction to the Use of a Pulse Lavage for Particulate Evidence Collection**
*Madison Smith, BS**
(FSF Emerging Forensic Scientist Award Oral Presentation)

JURISPRUDENCE

Thursday

Poster Session

- 11:30 am – 1:00 pm **G1** **Facial Recognition Technologies in Police and Security Activities: Legal Aspects in the Era of the European AI Act**
*Donatella Curtotti, PhD**; *Sebastiano Battiato, PhD*; *Giovanni Ziccardi, PhD*
- 11:30 am – 1:00 pm **G2** **The Italian National Cybersecurity Agency (ACN) and Criminal Justice: An Integrated Cooperation Model for Cyber Resilience, Crime Prevention, and Security**
*Donatella Curtotti, PhD**; *Gianluca Ignagni, MA**; *Marcello Albergoni, MA**; *Guido Colaiacovo, PhD*; *Federico Niccolò Ricotta, PhD*; *Alessandro Valenti, MA*
- 11:30 am – 1:00 pm **G3** **The SARS-CoV-2 Vaccination Mandate in Light of Italian Constitutional Court Judgments No. 14 and No. 15 of 2023**
*Anna Santamaria, MD**; *Simone La Torre, MD*; *Giuseppe Rinaldi, MD*; *Miriam Solenne, MD*; *Valentina Milone, MD*; *Jeannet Cappitelli, MD*
- 11:30 am – 1:00 pm **G4** **Transnational Investigations on Encrypted Platforms: The Italian Experience**
*Donatella Curtotti, PhD**; *Vittorio Rizzi*; *Giuseppe Giliberti*; *Wanda Nocerino, PhD*

Morning Session

- 8:30 am – 8:55 am **G5** **Strategic Opportunities to Advance Forensic Science in the United States: A Path Forward Through Research and Standards**
*Henry Swofford, PhD**
- 8:55 am – 9:15 am **G6** **Communicating Forensic Findings**
*Sandra Koch, PhD**; *John Paul Jones, MBA**
- 9:15 am – 10:00 am **G7** **Black-Box and Other Forensic Decision Analysis Studies: Understanding Limitations and Criticisms**
*R. Austin Hicklin, PhD**; *Nicole Richetelli, PhD**; *JoAnn Buscaglia, PhD**
- 10:00 am – 10:20 am BREAK
- 10:20 am – 10:40 am **G8** **Standards Use in Legal Proceedings and Primers for Officers of the Court**
*John Paul Jones, MBA**; *Dana Delger, JD**
- 10:40 am – 11:00 am **G9** **Direct-to-Stakeholders: One State’s Centralized Effort to Improve Crime Laboratory Record Discovery and Increase Transparency in Forensic Science**
*Leigh Tomlin, JD**; *Kevin Callahan, MS*
- 11:00 am – 11:30 am **G10** **When Are Opinions “Based on My Training and Experience” (BOMTAE) Reliable— And How Can You Show It?**
*Colin Bellair, JD**; *Pate Skene, PhD**
- 11:30 am – 1:00 pm BREAK

JURISPRUDENCE

NIST DNA Studies Findings

- | | | |
|-------------------|------------|--|
| 1:00 pm – 1:30 pm | G11 | DNA Human Factors Study
<i>Melissa Taylor, BA*</i> |
| 1:30 pm – 2:00 pm | G12 | DNA Mixture Interpretation Foundation Study
<i>John Butler, PhD*</i> |

Activity-Level Propositions and TTRP

- | | | |
|-------------------|------------|---|
| 2:00 pm – 2:45 pm | G13 | How Should DNA Analysts Answer the “How” Questions? Pitfalls and Recommendations for Evaluations of DNA Results Given Activity-Level Propositions
<i>Lynn Garcia, JD*</i> |
| 2:45 pm – 3:00 pm | | BREAK |
| 3:00 pm – 4:00 pm | G14 | Bridging the Knowledge Gap on DNA-TPPR in the American Court System
<i>Clinton Hughes, JD*; John Schmid, JD</i> |
| 4:00 pm – 4:15 pm | | Q&A Discussion: ALP and TTRP |
| 4:15 pm – 4:30 pm | | BREAK |

DNA Evidence Disclosure and Communication

- | | | |
|-------------------|------------|--|
| 4:30 pm – 4:50 pm | G15 | Communicating Complex Topics in Forensic DNA Through Data and Process Visualization
<i>Nathaniel Adams, BS*; Dan Krane, PhD</i> |
| 4:50 pm – 5:30 pm | G16 | DNA’s Value as Evidence for the Accused: Increasing the Awareness of Potentially Favorable Evidence in DNA Casework
<i>Joseph Cavise, JD*; Nicolas Hughes, JD*; Jessica Goldthwaite, JD; Allison Lewis, JD</i> |

Friday – Session I

Morning Session

- | | | |
|---------------------|------------|---|
| 8:30 am – 9:10 am | G17 | Validation
<i>Erin Forry, MS*; Melissa Taylor, BA*; Robert Ramotowski, MSFS*</i> |
| 9:10 am – 9:40 am | G18 | Firearm Examination Foundation Study
<i>Theodore Vorburger, PhD*; Steven Lund, PhD*</i> |
| 9:40 am – 10:00 am | | BREAK |
| 10:00 am – 10:45 am | G19 | The False Promise of Firearms Examination Validation Studies: Lay Controls, Simplistic Comparisons, and the Failure to Soundly Measure Misidentification Rates
<i>Richard Gutierrez, JD*; Emily Prokesch, JD*</i> |

JURISPRUDENCE

10:45 am – 11:30 am **G20** **Exploring New Approaches to Reporting Inconclusive Decisions in Firearm and Toolmark Comparison**
*Lynn Garcia, JD**; *Henry Swofford, PhD*

11:30 am – 1:00 pm **BREAK**

Afternoon Session

1:00 pm – 1:45 pm **G21** **A Collaborative Approach to Informing the Adoption of Trustworthy AI in Forensic Science and Legal Proceedings**
*Melissa Taylor, BA**; *Dana Delger, JD*; *Henry Swofford, PhD*; *Niki Osborne, PhD*

1:45 pm – 2:10 pm **G22** **Overcoming Unscientific Opposing Arguments Using Relevant Data**
*Jennifer Bracamontes, MS**; *William Allan, MASc*; *Mark Perlin, MD, PhD*

2:10 pm – 2:30 pm **G23** **Data Transparency in Probabilistic Genotyping Validation Studies**
*Nathaniel Adams, BS**; *Dan Krane, PhD*

2:30 pm – 2:45 pm **BREAK**

2:45 pm – 3:30 pm **G24** **AI and Black-Box Algorithms, Wrongful Conviction Risks, and the Importance of Access to Evidence**
*Mitha Nandagopalan, JD**

3:30 pm – 4:15 pm **G25** **Litigating AI-Generated Child Sex Abuse Material: Technical and Legal Challenges**
*Marc Canellas, PhD**

4:15 pm – 4:30 pm **BREAK**

4:30 pm – 5:30 pm **G26** **A Few Common Misconceptions in AI**
*Jeffrey Holmes, JD**

Friday – Session II

Morning Session

8:30 am – 9:00 am **G27** **Confronting the Confrontation Clause**
*Raymond Valerio, JD**; *Ray Wickenheiser, DPS*

9:00 am – 9:30 am **G28** **What Experts and Attorneys (and Hopefully Judges) Need to Know About the New Federal Rule of Evidence 702**
*Donald Shelton, JD**

9:30 am – 10:00 am **G29** **The Conclusion May Not Be As It Appears: Does Your Evidence Interpretation Address the Right Question?**
*Jack Hietpas, PhD**; *JoAnn Buscaglia, PhD**; *Danica Ommen, PhD*; *Janean Hanka, MS*; *Christopher Saunders, PhD*

JURISPRUDENCE

10:00 am – 10:15 am	BREAK
10:15 am – 10:40 am	G30 Reevaluating the Current State of Forensic Accreditation in the United States <i>Brian Gestring, MS*</i>
10:40 am – 11:00 am	G31 Footwear and Tire Impression Exam Foundation Study <i>Kelly Sauerwein, PhD*</i>
11:00 am – 11:30 am	G32 The Accuracy of Cadaver Dogs to Detect Human Residual Odor in a Scientific Test: Implications for the Courts <i>Dawnie Steadman, PhD*; Mary Cablk, PhD*; Shawn Campagna, PhD*; James Ha, PhD*; Mary Davis, MS; Zane Vickery, BS; Hector Castro, PhD; Katarina Jones, PhD</i>

ODONTOLOGY

Thursday

Poster Session

- 11:30 am – 1:00 pm **H1** **Diagnostic Omission in Radiology of Odonto-Stomatological Structures: Who Is Responsible? A Case Report and Review of Jurisprudence**
*Giulia Vitale, DMD**; *Ilenia Bianchi, PhD*; *Vilma Pinchi, PhD*; *Francesco Pradella, MD, DMD*
- 11:30 am – 1:00 pm **H2** **Positive Identification Using Photographic Facial Superimposition in a 20-Year-Old Cold Case**
*Elizabeth Smith, DDS**
- 11:30 am – 1:00 pm **H3** **Optimizing Mass Fatality Operations: The Synergy of Technology and Forensic Odontology**
*Khlea Sumani, DMD**; *Amanda Alvarez Wright, MPA**

Morning Session I

- 8:30 am – 9:00 am **H4** **Recent Advances in Forensic Odontology Standards**
*Kenneth Aschheim, DDS**
- 9:00 am – 9:20 am **H5** **A Comparison of the Plaster Model and the Digital Dental Scan in the Analysis of Palatal Rugae**
*Federica Mele, MD**; *Laura Roselli, DDS*; *Carmela Suriano, MD*; *Roberto Catanesi, MD*; *Massimo Petruzzi, PhD*; *Valeria Santoro, PhD*
- 9:20 am – 9:40 am **H6** **Animal Bitemarks**
*Megha Shah, DDS**
- 9:20 am – 9:40 am **H7** **Teeth as the Sole Identifier of Heavily Challenged Ajnala Skeletal Remains: A Multifaceted Approach**
*Jagmahender Singh Sehrawat, PhD**
- 9:40 am – 10:10 am **BREAK**

Morning Session II

- 10:10 am – 10:40 am **H8** **Transforming Forensic Odontology: Unlocking the Power of Artificial Intelligence (AI) and Augmented Intelligence (Aul) for Dental Identification**
*Kenneth Aschheim, DDS**; *Itai Rosenblatt, BS*
- 10:40 am – 11:00 am **H9** **Research Dynamics in the Application of Mandibular Radiometric Dimensions for Sex and Age Estimation Using Different Radiological Modalities: A Bibliometric Analysis**
*Jagmahender Singh Sehrawat, PhD**; *Shria Sharma, MS*; *Shubham Thakur, MS*
- 11:00 am – 1:00 pm **BREAK**

ODONTOLOGY

Afternoon Session I

- 1:00 pm – 1:20 pm **H10** **From Inside to Outside or Vice Versa? An In Vitro Study on the Deposition of Substances of Abuse in Dental Tissues**
*Ilenia Bianchi, PhD**; *Emma Croce, MS*; *Alexandra Dimitrova, RF*; *Federica Gelli, DMD*;
Martina Focardi, MD; *Annalisa Ugolini*; *Fabio Vaiano, PhD*; *Guido Mannaioni, PhD*;
Vilma Pinchi, PhD
- 1:20 pm – 1:50 pm **H11** **An Evaluation of Degradation Pattern of Different RNA Types and Gene Expression in Human Dental Pulp Tissue Under Varied Temperatures and Storage Time Intervals**
*Shalini Gupta, PhD**
- 1:50 pm – 2:20 pm **H12** **Teeth as Indicators of the Late Postmortem Interval (PMI): A Method Based on Histomorphological Changes of Dental Pulps and the Integrity of the Odontoblastic DNA**
*Ilenia Bianchi, PhD**; *Annalidia Seclì, DMD*; *Martina Focardi, MD*; *Laura Calosi, MS*;
Daniele Bani, PhD; *Vilma Pinchi, PhD*
- 2:20 pm – 2:30 pm BREAK

Afternoon Session II

- 2:30 pm – 3:00 pm **H13** **Advancements in Forensic Odontology: Enhancing Medicolegal Death Investigations Through Technology and Collaboration**
*Khlea Sumani, DMD**; *Amanda Alvarez Wright, MPA**
- 3:00 pm – 3:20 pm **H14** **The Use of Self-Portrait Photographs (Selfies) for Dental Identification: A Pilot Study**
*Larisa Saracevic, MS**; *Satu Valoriani, PhD*; *Matteo Borrini, PhD*
- 3:20 pm – 3:40 pm **H15** **Forensic Odontology in Mass Disaster Victim Identification: The Surfside Condominium Collapse Case Study**
*Steven Lanster, DMD**
- 4:00 pm – 4:30 pm **H16** **A Machine Learning-Assisted Combination of Skeletal and Dental Methods for Age Estimation in Subadults**
*Ilenia Bianchi, PhD**; *Giorgio Oliva*; *Giulia Vitale, DMD*; *Francesco Pradella, MD, DMD*;
Martina Focardi, MD; *Vilma Pinchi, PhD*
- 4:00 pm – 4:30 pm **H17** **Can Standard Forensic Processing Practices Alter Dental Age Estimation Markers?**
*Joe Adserias-Garriga, PhD**; *Cheyenne Hindman, MS*; *Luis Cabo, MS*

PATHOLOGY/BIOLOGY

Wednesday

Poster Session

- 11:30 am – 1:00 pm **I1** **A Decomposition Scoring System for Indoor Death Scenes**
*David Carter, PhD**; Audrey Pilar, BS; Marlon Francisco, BS; Bratt Katherine, BS;
Carter Charlotte, MS; Alexis Peterson, BA
- 11:30 am – 1:00 pm **I2** **Temperature Variation in Marquette, Michigan, in Relation to Protein Degradation Patterns for Postmortem Interval Determination**
*Julia Emery, BS**; Josh Sharp, PhD; Jane Harris, PhD; Evan Pratt, PhD
- 11:30 am – 1:00 pm **I3** **An Analysis of the Sequencing Quality of Next-Generation Sequencing for the Entire Mitochondrial Genome in Decomposed Human Samples**
*Moon-Young Kim, MD, PhD**; Seung Eun Lee, MS; Ga Eun Kim, MS; Dong Yeon Lee, BS;
Hajin Kim, PhD
- 11:30 am – 1:00 pm **I4** **The Effect of Decomposition on Recovery of DNA Evidence and Its Subsequent Impact on Identification**
*Kathryn Melançon**; Katelyn Bolhofner, PhD; Jonathan Parrott, PhD
- 11:30 am – 1:00 pm **I5** **Immersion Deaths in Seoul, a City With a River: The Implication of Decomposition in the Diagnosis of Drowning**
*Dong Yeon Lee, BS**; Hajin Kim, PhD; Soong Deok Lee, MD, PhD; Moon-Young Kim, MD, PhD
- 11:30 am – 1:00 pm **I6** **Animal Predation Versus Scavenging in Medicolegal Death Investigations**
*Erika Poole; Hannah Jarvis, MRCS**
- 11:30 am – 1:00 pm **I7** **The Changes in Cuticular Hydrocarbon Profiles of a Single Blow Fly Species as a Function of Developmental Stage and Preservation Method**
*Alexander Jutila, BS**; William Shirley, BS; Ruth Waddell Smith, PhD
- 11:30 am – 1:00 pm **I8** **Disguising Decomposition: Attempted Concealment and the Insects Associated With Remains in Criminal Investigations**
*Krystal Hans, PhD**
- 11:30 am – 1:00 pm **I9** **A Developmental and Genomic Study to Strengthen Forensic Entomology Baseline Data**
*Jonathan Parrott, PhD**; Alexandier Brossia, BS; Gracie Thompson, BS
- 11:30 am – 1:00 pm **I10** **A Rare Case of Penetrating Atherosclerotic Ulcer Rupture in the Ascending Aorta With Cardiac Tamponade**
*Lorenzo Tornese, MD**; Cristina Mondello, MD, PhD*; Vincenzo Cianci, MD*;
Elvira Ventura Spagnolo, MD; Patrizia Gualniera, MD, PhD; Daniela Sapienza, MD, PhD;
Alessio Asmundo, MD, PhD
- 11:30 am – 1:00 pm **I11** **Bulletproof Heart: Defying the Odds With an Embedded Remote Projectile**
*Nahimarys Colón Hernández, MD**; Tatyana Zinger, DO; Kristinza Giese, MD
- 11:30 am – 1:00 pm **I12** **Severe Acute Myocardial Injury Associated With Heat-Related Illness**
*Biliana Mileva, MD**; Metodi Goshev, MD, PhD; Tihomir Dikov, MD;
Milena Velizarova, MD, PhD; Vesela Ivanova, MD, PhD

PATHOLOGY/BIOLOGY

- 11:30 am – 1:00 pm **I13** **Unlocking the Mystery Behind Sudden Cardiac Death: A Case Series**
*Grazia Giulia Pantè, MD**; *Martina Francaviglia, MD**; *Maria Paola Pinacchi, MD**;
Federica Ministeri, MD
- 11:30 am – 1:00 pm **I14** **An Assessment of Myocardial Ischemia Using Coronary Postmortem Computed Tomography Angiography Based on the Voronoi Algorithm: A Case Report**
*Haruki Fukuda, MD, PhD**; *Hiroyuki Tokue, MD, PhD*; *Akira Hayakawa, MD, PhD*;
Yoshihiko Kominato, MD, PhD; *Rie Sano, PhD*
- 11:30 am – 1:00 pm **I15** **Broken Heart Syndrome: Can an Argument Kill?**
*Martina Francaviglia, MD**; *Grazia Giulia Pantè, MD**; *Maria Paola Pinacchi, MD**;
Fabrizio Vanaria, MD
- 11:30 am – 1:00 pm **I16** **The Impact of a Cardiac Surgery Scar on Heart Rupture Following a Fall From Height: A Case Report**
*Biancamaria Treves, MD**; *Alessandro Ghamlouch, MD*; *Fabio Del Duca, MD*;
Gabriele Napoletano, MD
- 11:30 am – 1:00 pm **I17** **The Medicolegal Implications of Atrial Fibrillation Ablation Complications and Their Management**
*Gabriele Napoletano, MD**; *Alessandro Ghamlouch, MD*; *Biancamaria Treves, MD*;
Fabio Del Duca, MD
- 11:30 am – 1:00 pm **I18** **A Case of Suicide by Sodium Nitrite and Dimethyl Sulfoxide Ingestion**
*Yoo Min Ahn, DO**; *Grant Herndon, DO*
- 11:30 am – 1:00 pm **I19** **Fatal Occupational Exposure to Hydrogen Sulfide: A Case Report Emphasizing the Need for Differential Diagnosis**
Romina Malerba, MD; *Alejandro Partida Contreras, MD**; *Adam Gonzalez, MD*;
Mario Rascon, MD
- 11:30 am – 1:00 pm **I20** **Synthetic Cannabinoids and Sudden Death**
*Edward Quan, BA**; *Tatiana Bihun, MD*; *Joseph Prahlow, MD*; *Nina Sadigh, MD*;
Timothy Wysozan, MD; *Prentiss Jones, PhD*; *David Halperin, MD*; *Sarah Riley, PhD*
- 11:30 am – 1:00 pm **I21** **Heat Shock Proteins (HSPs) Expression in Cocaine-Related Deaths: A Systematic Review**
*Francesco Carpano, MD**; *Diego Moro, MD*; *Giovanni Gurgoglione, MD*;
Isabella Di Marzo Polzi, MD; *Elena Giacani, MD*; *Roberta Bibbò, MD*
- 11:30 am – 1:00 pm **I22** **Accidental Vehicular Carbon Monoxide Fatalities: A Ten-Year Review**
*Bethany Bless, MS**; *Nichole Miller, BS*; *Hannah Jarvis, MRCS*

Thursday

Poster Session

- 11:30 am – 1:00 pm **I23** **A Survival Analysis Based on a Forensic Investigation of Motorcycle Road Traffic Accidents in the Athens Metropolitan Area During 2021–2023**
*Emmanouil Sakelliadis, PhD**; *Dimitrios Kouzos, MD*; *Konstantinos Katsos, PhD*;
Ioannis Papoutsis, PhD; *Artemisia Ntona, PhD*; *Nikolaos Georgiadis, MS*;
Theodoros Sergeantanis, PhD; *Chara Spilopoulou, MD, PhD*

PATHOLOGY/BIOLOGY

- 11:30 am – 1:00 pm **I24** **The Forensic Utility of Botany in Railway Accident Cases**
*Maria Cristina Verrina, MD**; *Matteo Antonio Sacco, MD**; *Saverio Gualtieri, MD**;
*Isabella Aquila, MD, PhD**; *Fabrizio Cordasco, MD, PhD*; *Raffaele Gangale, MD*;
Wandamaria Mazzuca
- 11:30 am – 1:00 pm **I25** **A Differential Diagnosis Between Acute Mechanical Asphyxia and Fatal Arrhythmia During Law Enforcement Restraint**
*Andrea Costantino, MD**; *Marta Guerini, MD**; *Beatrice Defraia, MD*; *Silvio Chericoni, PhD*;
Martina Focardi, MD
- 11:30 am – 1:00 pm **I26** **Five Types of Hepatic Lacerations: Can You See the Difference?**
*Angela Colucci, MD**; *Enrica Macorano, MD*; *Giovanni De Gabriele, MD*;
Alessandro Cristalli, MD; *Sara Di Trani, MD*; *Antonio Marzaioli, MD*;
Gerardo Cazzato, MD, PhD; *Francesco Introna, MD, PhD*
- 11:30 am – 1:00 pm **I27** **“Terminal Burrowing” and Paradoxical Undressing: A Case Series Representing Lethal Hypothermia**
*Biliana Mileva, MD**; *Alexander Alexandrov, MD, PhD*; *Mihaela Georgieva, MD*;
Tihomir Dikov, MD; *Martina Valcheva, MD*; *Metodi Goshev, MD, PhD*; *Vesela Ivanova, MD, PhD*
- 11:30 am – 1:00 pm **I28** **An 18-Year Review of Decedents Recovered From the Mississippi River and Associated Tributaries at the West Tennessee Regional Forensic Center**
*Annie Addison, BA**; *Danielle Harrell, DO*
- 11:30 am – 1:00 pm **I29** **Overkill: A Case Series Analysis by Detailed Body Examination, Crime Scene Investigations, and Criminological Characterization**
*Chiara Fabrello, MD**; *Diego Moro, MD*; *Maria Antonella Bosco, MD*; *Giovanni Pollice, MD*;
Claudia Angela Damato, MD; *Raffaella Campagna, MD*
- 11:30 am – 1:00 pm **I30** **Understanding the Phenomenon of Overkill: An Analysis of Eight Cases From Southern Italy**
*Ilaria Fracassi, MD**; *Alessandro Feola, MD, PhD*; *Federica Cascone, MD*;
Mariavictoria De Simone, MD; *Paolo Palermo, MD*; *Filomena Casella, MD*;
Pasquale Giugliano, MD; *Anna Carfora, PhD*; *Carlo Pietro Campobasso, MD, PhD*
- 11:30 am – 1:00 pm **I31** **Sudden Deaths in Athletes: The Role of Autopsy in a Literature Review**
*Jasmine Calafiore, MD**; *Matteo Antonio Sacco, MD**; *Fabrizio Cordasco, MD, PhD**;
*Isabella Aquila, MD, PhD**; *Saverio Gualtieri, MD*; *Raffaele Gangale, MD*;
Pietrantonio Ricci, MD, PhD
- 11:30 am – 1:00 pm **I32** **Fatalities Caused by Elapids and Viperids: A Critical Analysis of Cases Coming to a Tertiary Care Center**
*Nilesh Tumram, MD**
- 11:30 am – 1:00 pm **I33** **Suicide Analysis in India: Causes, Trends, and Forensic Implications**
*Ashish Saraf, MD**; *Navneet Ateriya, MD*
- 11:30 am – 1:00 pm **I34** **An Autopsy of a Patient With Schizophrenia and Compulsive Eating: A Case Report Highlighting Choking Risks in Psychiatric Patients**
*Bethany Faust, MD**; *Harry Sanchez, MD*; *Na Niu, MD, PhD*
- 11:30 am – 1:00 pm **I35** **A Forensic Analysis of a Carbonization in a Complex Case of Dubious Suicide**
*Matteo Antonio Sacco, MD**; *Saverio Gualtieri, MD**; *Isabella Aquila, MD, PhD**;
Fabrizio Cordasco, MD, PhD; *Lucia Tarda, MD*; *Santo Gratteri, MD*

PATHOLOGY/BIOLOGY

- 11:30 am – 1:00 pm **I36** **May–Turner Syndrome: A Case Report of an Undiagnosed Left Iliac Vein Thrombosis**
*Alessandro Ghamlouch, MD**; *Fabio Del Duca, MD*; *Gabriele Napoletano, MD*;
Biancamaria Treves, MD
- 11:30 am – 1:00 pm **I37** **The Eyewear Suicide: A Rare Case of Suicide Caused by the Inhalation of Homemade Hydrogen Sulfide**
*Annachiara Vinci, MD**; *Paolo Visci, MD*; *Maurizio Mastrapasqua, MD*;
Vito Maria Goffredo, MD; *Davide Ferorelli, MD*; *Alessandro Dell’Erba, MD, PhD*
- 11:30 am – 1:00 pm **I38** **The Strange Case of Cable Ties: Suicide or Murder?**
*Sara Di Trani, MD**; *Enrica Macorano, MD*; *Giovanni De Gabriele, MD*; *Alessandro Cristalli, MD*;
Antonio Marzaioli, MD; *Angela Colucci, MD*; *Matilde Talamo, MD*; *Francesco Introna, MD, PhD*
- 11:30 am – 1:00 pm **I39** **Death by Self-Inflicted Captive Bolt Device**
*Breanna Cuchara-Blagmon, MS**; *Francisco Diaz, MD*; *Lakshmanan Sathyavagiswaran, MD*
- 11:30 am – 1:00 pm **I40** **Suicide by Knitting Needle—An Ambiguous Method of Self-Inflicting Fatal Heart Injuries: A Case Report**
*Filippo Bolzan, MD**; *Michela Peruch, MD*; *Maria Buffon, MD*; *Riccardo Addobbati, MD, PhD*;
Pier-Riccardo Bergamini, MD; *Davide Radaelli, MD, PhD*

Thursday – Session I

Omics Approaches in Forensic Taphonomy

- 8:00 am – 8:30 am **I41** **A Decade of “Omics” in Forensic Science From Lab to Court: Where Are We Standing, Where Are We Going?**
*Noemi Procopio, PhD**
- 8:30 am – 8:50 am **I42** **The Impact of Heroin on Thanatomiobiome and the Postmortem Interval**
*Christina Harris**; *Gulnaz Javan, PhD**; *Sarah Shado, MScFS*; *Silvia Visonà, PhD*
- 8:50 am – 9:10 am **I43** **Investigating Flunitrazepam’s Influence on Calliphora Vicina (Diptera: Calliphoridae) Growth and Its Impact on Microbiome Diversity**
*Lavinia Iancu, PhD**; *Noemi Procopio, PhD*; *Andrea Bonicelli, PhD*; *Ranjana Mosby, BS*
- 9:10 am – 9:30 am **I44** **Microbial Succession of Necrophagous Beetles and Soil During Small Carcass Decomposition: Potential Uses in Understanding Body Translocation Scenarios**
*Kelly Waters, BS**; *Anthony Grigsby, MS*; *Bethany Mikles, MS*; *Jennifer Pechal, PhD*;
Mark Benbow, PhD
- 9:30 am – 9:50 am **I45** **Differential Biochemical Decomposition in Single and Mass Grave Deposition**
*Andrea Bonicelli, PhD**; *Nengi Ogbanga, PhD*; *Danny Wescott, PhD*; *Timothy Gocha, PhD*;
Hayley Mickleburgh, PhD; *Noemi Procopio, PhD*
- 9:50 am – 10:10 am **I46** **A Metabolomic Regression Model for PMI Estimation on Human Pericardial Fluid**
*Alberto Chighine, MD**; *Matteo Stocchero, PhD*; *Giulio Ferino, PhD*; *Fabio De-Giorgio, MD, PhD*;
Matteo Nioi, MD; *Ernesto d’Aloja, MD, PhD*; *Emanuela Locci, PhD*
- 10:10 am – 10:30 am **I47** **Estimation of the Postmortem Interval in Human Vitreous Humor by Infrared Spectroscopy**
*Eva Montanari, PhD**; *Angelo Montana, MD, PhD**; *Francesco Paolo Busardò*

PATHOLOGY/BIOLOGY

10:30 am – 11:00 am	I48	Why “Novel PMI Estimation Methods” Are Rarely Applied in Forensic Routine: An Example on a Decade of Research on Postmortem Protein Degradation <i>Stefan Pittner, PhD*</i> ; <i>Peter Steinbacher, PhD</i> ; <i>Fabio Monticelli, PhD</i>
11:00 am – 11:30 am		Discussion and Q&A
11:30 am – 1:00 pm		BREAK

Entomology and Ecology

1:00 pm – 1:20 pm	I49	Closing the Divide: Evaluating the Discrepancy in Forensic Entomology Research and Casework Needs <i>Lauren Weidner, PhD*</i>
1:20 pm – 1:40 pm	I50	Who Let the Dogs Out? A Comparison of Antemortem and Postmortem Canine Activity <i>Alyssa Byrd, MD*</i> ; <i>Meredith Frank, MD</i> ; <i>James Caruso, MD</i> ; <i>Ian Puffenberger, MD</i> ; <i>Sterling McLaren, MD</i>
1:40 pm – 2:00 pm	I51	Impacts of Vertebrate Scavenging on Blow Fly Oviposition on Human Remains <i>Hayden McKee-Zech, PhD*</i> ; <i>Erin Patrick, MS</i> ; <i>Charity Grace Owings, PhD</i> ; <i>Dawnie Steadman, PhD</i>
2:00 pm – 2:20 pm	I52	Morphometric Analysis of Posterior Spiracles for Species Identification of Necrophagous Third Instar Larvae <i>Tae Mo Kang, PhD*</i> ; <i>Zi Yan Liu, BA</i> ; <i>Kwang Soo Ko, MA</i> ; <i>Seong Hwan Park, MD, PhD</i>
2:20 pm – 2:40 pm	I53	Lucilia Mexicana and Its Population Structure in Texas <i>Cesar Cantu, BS*</i> ; <i>Rachel Houston, PhD</i> ; <i>Christopher Randle, PhD</i> ; <i>Sibyl Bucheli, PhD</i>
2:40 pm – 3:00 pm	I54	Visualizing and Clustering the Species in the Mixture of Pollen Flow Cytometry <i>Slun Booppasiri, MS*</i> ; <i>Matthieu Baudelet, PhD</i> ; <i>Jack Trimble, BS</i> ; <i>Larry Tang, PhD</i>
3:00 pm – 3:20 pm	I55	A Comparison of Drying Characteristics of Insect Stains and Human Bloodstains <i>David Rivers, MD, PhD*</i> ; <i>Tyler Vega, BA</i>
3:20 pm – 3:40 pm		Discussion and Q&A

New Technologies and Imaging to Improve Forensic Investigations

3:40 pm – 4:00 pm	I56	Optimizing Efficiency: Evaluating the Role of Limited Examination in Non-Suspicious Deaths Outside the Residence <i>Riley Lochner, MD*</i> ; <i>Si Gao, MS</i> ; <i>Pramod Gumpeni, MD</i>
4:00 pm – 4:20 pm	I57	An Application of 3D Virtual Animation in Complicated Suicide Scenarios: A Multidisciplinary Approach to Forensic Investigations <i>Monica Concato, MD*</i> ; <i>Massimiliano Gori, BS</i> ; <i>Luca De Rosa, BS</i> ; <i>Simone Danesin, BS</i> ; <i>Francesco Camana, PhD</i> ; <i>Stefano D’Errico, PhD</i>
4:20 pm – 4:50 pm	I58	Enhancing Medicolegal Death Investigations: The Successful Adoption of Postmortem Computer Tomography (PMCT) Technology at the Institute of Forensic Sciences in Puerto Rico <i>Paola Luna, MD*</i> ; <i>Meisshialette Ortiz, MS*</i> ; <i>Maria Conte, MD</i> ; <i>Irma Rivera, MD</i>

PATHOLOGY/BIOLOGY

4:50 pm – 5:10 pm	I59	The Potential Help of Technology in Rare Diseases: The Case of a Child With Gorham-Stout Syndrome <i>Andrea Costantino, MD*</i> ; <i>Marta Guerini, MD*</i> ; <i>Beatrice Defraia, MD</i> ; <i>Flavio Giordano, MD</i> ; <i>Martina Focardi, MD</i>
-------------------	-----	--

Thursday – Session II

Case Studies and Reviews—Part 1

8:30 am – 8:50 am	I60	Bayou Blues: Unraveling Mysteries of the Murky Depths of the Houston Bayou System <i>Daniel Taylor, MD*</i> ; <i>Si Gao, MS</i> ; <i>Ana Lopez, MD</i>
8:50 am – 9:10 am	I61	Non-Traumatic Companion Cases: A Ten-Year Review and Examination of Investigative and Autopsy Findings <i>Hannah Jarvis, MRCS*</i> ; <i>Nichole Miller, BS</i> ; <i>Bethany Bless, MS</i>
9:10 am – 9:30 am	I62	A Meeting With Death: How Medical Examiner/Coroner Offices Can Help Support the Surveillance of Respiratory Illnesses <i>Savannah Hardin, MPH*</i> ; <i>Christopher Gullede, MD</i> ; <i>Rachel Franklin, MPH</i>
9:30 am – 9:50 am	I63	When Lightning Strikes! A 22-Year Review of Fatalities in Houston, Texas, and New York City <i>Hannah Jarvis, MRCS*</i> ; <i>Gregory Dickinson, MD</i>
9:50 am – 10:10 am	I64	Foreign Matter and Surgery: A Forensic Approach to Identification and Source Determination <i>Christopher Palenik, PhD*</i>
10:10 am – 10:30 am	I65	Did George Floyd Die of Cardioinhibition From Pressure on His Neck? <i>Victor Weedn, MD, JD*</i> ; <i>Pete Speth, MD</i> ; <i>Alon Steinberg, MD</i>
10:30 am – 11:00 am		Discussion and Q&A
11:00 am – 1:00 pm		BREAK

Multidisciplinary Session: Pathology/Biology and Toxicology

1:00 pm – 1:15 pm	L47	Two Fatalities Involving Hydroxychloroquine <i>Teresa Gray, PhD*</i> ; <i>Jennifer Ross, MD</i> ; <i>Marianne Beynon, MD</i>
1:15 pm – 1:30 pm	L48	An Unexpected Fatal Methadone Ingestion in a Child <i>Jordan Taylor, MD*</i>
1:30 pm – 1:45 pm	L49	A Toxicological and Pathological Re-Evaluation of Media-Reported Mitragynine (Kratom) Deaths in Florida <i>Marilyn Huestis, PhD*</i> ; <i>Karl Williams, MD</i>
1:45 pm – 2:00 pm	L50	Endogenous Carbon Monoxide Due to Hemolytic Anemia: A Forensic Red Herring <i>Orianna Thomas, MSFS*</i> ; <i>Sandra Bishop-Freeman, PhD</i>

PATHOLOGY/BIOLOGY

- 2:00 pm – 2:15 pm **166** **Drug-Related Deaths in the Elderly: A Five-Year Overview of Western Michigan**
*Abigail Grande, MPH**; *Gemma Harkin, MPH*; *Bo Collins, MPH*; *Amanda Fisher-Hubbard, MD*
- 2:15 pm – 2:30 pm **167** **Fatal Intoxications vs. Congenital Cardiac Disorders in Sudden Death: Where to Draw the Line?**
*Simone Grassi, MD**; *Alexandra Dimitrova, RF*; *Fabio Vaiano, PhD*; *Vincenzo Arena, MD*; *Oscar Campuzano, MD*; *Sabina Strano Rossi, PhD*; *Ramon Brugada, MD*; *Antonio Oliva, MD, PhD*
- 2:30 pm – 2:45 pm **168** **Illicit Drug Deaths in Decedents Over 60 Years of Age in the City and County of San Francisco From 2020 to 2024**
*Ellen Moffatt, MD**; *Luke Rodda, PhD*; *Anson Tsang, MS*
- 2:45 pm – 3:00 pm **169** **Sodium Azide/Nitrite Suicides in the Netherlands Between 2015 and 2022**
*Karen van den Hondel, PhD**; *Dominique van Pelt, MS*; *Lizanne Schweren, PhD*; *Manon Ceelen, PhD*
- 3:00 pm – 3:15 pm **170** **Fatal Drug Intoxication in the Pediatric Population of El Paso, Texas**
Romina Malerba, MD; *Alejandro Partida Contreras, MD**; *Adam Gonzalez, MD*; *Mario Rascon, MD*

Friday

Poster Session

- 11:30 am – 1:00 pm **171** **A Multicentric Study on Forensic Investigation of Bodies Exposed to Fire: The Importance of an Interdisciplinary Approach**
*Enrica Callegari, MD**; *Gennaro Baldino, MD*; *Guido Viel, MD, PhD*; *Giovanni Cecchetto, MD, PhD*; *Margherita Neri, MD, PhD*; *Antonio Oliva, MD, PhD*; *Elvira Ventura Spagnolo, MD*
- 11:30 am – 1:00 pm **172** **Fire and Blood: Homicide With Combined Sharp Force Injury and Carbonization**
*Benedetta Baldari, MD, PhD**; *Gianluca Piras, MD*; *Anna Maria Manta, MD*; *Valentina Milone, MD*; *Roberta Bibbò, MD*; *Luigi Cipolloni, MD, PhD*
- 11:30 am – 1:00 pm **173** **Models of Autopsy Techniques Compared in the Era of Minimally Invasive Techniques**
*Saverio Gualtieri, MD**; *Maria Chiara Militi**; *Matteo Antonio Sacco, MD**; *Isabella Aquila, MD, PhD**; *Fabrizio Cordasco, MD, PhD*; *Pietro Tarzia, MD*; *Raffaele Gangale, MD*; *Pietrantonio Ricci, MD, PhD*
- 11:30 am – 1:00 pm **174** **The Role of Forensic Anthropology and Radiography in Supporting Identifications in a Medical Examiner's Office**
*Amy Joy Spies, PhD**; *Kaitlyn Fulp, MA*; *Katelyn Bolhofner, PhD*; *Christen Eggers, MS*; *Laura Fulginiti, PhD, PhD*
- 11:30 am – 1:00 pm **175** **The Suicide: An Experimental Study of the Expression of the Neurotrophic Factors BDNF and GDNF in the Brain of Subjects Who Died by a Suicidal Act**
*Stefania De Simone, MD, PhD**; *Luigi Cipolloni, MD, PhD**; *Maria Antonella Bosco, MD*; *Margherita Neri, MD, PhD*; *Santina Cantatore*; *Francesca Consalvo, MD, PhD*
- 11:30 am – 1:00 pm **176** **A Postmortem Diagnosis of Bloodborne Infectious Diseases Using Point-of-Care Test Kits**
*Ga Eun Kim, MS**; *Dong Yeon Lee, BS*; *Eun-Byoul Jung, BS*; *oon-Young Kim, MD, PhD*

PATHOLOGY/BIOLOGY

- 11:30 am – 1:00 pm **I77** **It's a ME...MA! When Genetics Is the Actual Cause of Death**
*Damiano Marchesini, MD**; *Marida Imbriani, MD*; *Gianluca Piras, MD*;
Benedetta Baldari, MD, PhD
- 11:30 am – 1:00 pm **I78** **The Application of Intracerebral Aquaporin-4 (AQP4) Expression in Differential Diagnosis of Drowning: An Immunohistochemical Study Related to the Timing of the Autopsy**
*Elena Giacani, MD**; *Francesco Carpano, MD*; *Jeannet Cappitelli, MD*; *Anna Santamaria, MD*;
Fiorenzo D'Abate, MD; *Stefania De Simone, MD, PhD*
- 11:30 am – 1:00 pm **I79** **The Essential Role of Genetic Analysis in Sudden Cardiac Death: Advancing Molecular Autopsies and the Potential for Preventive Screening**
*Gabriella Maisetta, MD**; *Chiara Ariani, MD**; *Julia Lazzari, MD*; *Ilaria Marcacci, MD*;
Rebecca Pieretti, MD; *Martina Modena, PhD*; *Andrea Scatena, MD*; *Marco Di Paolo, MD*
- 11:30 am – 1:00 pm **I80** **Extra-Articular Gout Deposits Can Be Clinically Significant and Contribute to Death**
*Ellen Moffatt, MD**; *Stephany Fiore, MD*
- 11:30 am – 1:00 pm **I81** **Digital Pathology in Education: Shaping Career Choices and Recruitment Strategies in Forensic Pathology**
*Nahimarys Colón Hernández, MD**
- 11:30 am – 1:00 pm **I82** **A Fatal Citrobacter-Induced Meningitis Complicated With Pneumocephalus in an Infant: A Case Report**
*Stefano Di Maria, MD**; *Raffaella Vetrini, MD*; *Tommaso Livieri, MD*; *Michela Peruch, MD*;
Calogero Cuttaia, MD; *Matteo Bolcato, MD*
- 11:30 am – 1:00 pm **I83** **Death After Spontaneous Splenic Rupture in a Newborn Child With Severe Hemophilia A Caused by De Novo Mutation: A Case Report With Literature Review**
*Andrea Cisternino, MD**; *Silvia Visonà, PhD*; *Gulnaz Javan, PhD*; *Nicolas Martinelli, MD*;
Yao Chen, MD
- 11:30 am – 1:00 pm **I84** **Fatal Neonatal Herpes Simplex Virus Infection**
*George Kostanian, MD**; *Julie Schrader, DO*
- 11:30 am – 1:00 pm **I85** **Sudden Pediatric Death: The Lethal Intersection of Influenza and Hypoplastic Coronary Artery Disease**
*Ruben Alberto Hiraldo, MD**; *Tatyana Zinger, DO*; *Renu Virmani, MD*
- 11:30 am – 1:00 pm **I86** **The Occasional and Rare Finding of Choroid Plexus Papilloma in the Cerebellopontine Angle in an Infant: A Case Report**
*Vito Maria Goffredo, MD**; *Maurizio Mastrapasqua, MD*; *Michele Telegrafo, MD*;
Francesco Calò, MD; *Paolo Visci, MD*; *Alessandro Dell'Erba, MD, PhD*; *Davide Ferorelli, MD*
- 11:30 am – 1:00 pm **I87** **Undiagnosed T-Lymphoblastic Lymphoma Mimicking Asthma and Leading to Sudden Death in a Pediatric Patient**
*Jonathan Buehne, BS**; *Joseph Prahlow, MD*
- 11:30 am – 1:00 pm **I88** **A Comparison of Histomorphological Changes of Atherosclerosis and Lipid Profile in Non-Cardiac Deaths Among Children and Young Adults at Autopsy**
*Yogender Bansal, MD**; *Pulkit Girdhar, MD*; *Uma Saikia, MD*
- 11:30 am – 1:00 pm **I89** **A Multivessel Sudden Coronary Artery Dissection During the Peripartum Period**
*Amber Melchers, MHS**; *Wendy Gunther, MD*

PATHOLOGY/BIOLOGY

Friday – Session I

Pregnancy-Related and Pediatric Deaths

8:00 am – 8:20 am	I90	Pregnancy-Associated Manners of Death in Western Michigan, 2016–2024 <i>Nicolas Kostelecky, MD*</i> ; <i>Hunter Berger, BS</i> ; <i>Anna Tart, MD</i> ; <i>Abigail Grande, MPH</i> ; <i>Amanda Fisher-Hubbard, MD</i>
8:20 am – 8:40 am	I91	An Approach to Placental Examination and Placental Pathology for the Forensic Pathologist <i>Michael Harrell, MD*</i> ; <i>Jolee Suddock, DO</i> ; <i>Lorraina Robinson, DO</i> ; <i>Paul Zamara, MD</i>
8:40 am – 9:10 am	I92	Examining the Lung Float Test: Ending the Use of a Broken Tool for Pregnancy Criminalization and Wrongful Convictions <i>Dara Gell, JD*</i>
9:10 am – 9:40 am	I93	Genetic Insights Into Pediatric Sudden Cardiac Death: A Case Report of Anomalous Left Coronary Artery Originating From the Right Sinus of Valsalva <i>Alejandro Partida Contreras, MD*</i> ; <i>Romina Malerba, MD</i> ; <i>Mario Rascon, MD</i>
9:40 am – 10:00 am	I94	Retinal Fold Apical Attachment of the Internal Limiting Membrane Is Not Specific for Vitreoretinal Traction During Alleged Cycles of Ocular Acceleration-Deceleration Based on Lange’s Folds Histology <i>Ashley Smith, MD*</i> ; <i>Tammy Sexton, BA</i> ; <i>William Harrison, MD</i> ; <i>Anna McDonald, MD</i> ; <i>Patrick Lantz, MD</i>
10:00 am – 10:20 am	I95	Frequency and Distribution Patterns of Rib Fractures in Deceased Neonates, Infants, and Young Children <i>Olivia Millington, MS*</i> ; <i>Emma Cheshire, PhD</i> ; <i>Roger Malcomson, PhD</i>
10:20 am – 10:40 am	I96	Pediatric Autopsies in Luxembourg: A Retrospective Analysis of a Five-Year Period (2018–2022) <i>Thorsten Schwark, MD*</i> ; <i>Martine Schaul, MD</i>
10:40 am – 11:00 am	I97	Suicides in Children and Young Teens: A Nine-Year Retrospective Review From the Cook County Medical Examiner’s Office <i>Ilaria Tarozzi, MD*</i> ; <i>Lorenzo Gitto, MD</i>
11:00 am – 11:30 am		Discussion and Q&A
11:30 am – 1:00 pm		BREAK

Case Studies and Reviews—Part 2

1:00 pm – 1:20 pm	I98	Tragic Homecoming—Fatal Dengue-Induced Myocarditis in a Maldives Vacationer: A Case Report <i>Beatrice Snidero, MD*</i> ; <i>Diana Bonuccelli, MD</i> ; <i>Marco Conti, MD</i> ; <i>Scilla Lenzi, MD</i> ; <i>Raffaella Vetrini, MD</i> ; <i>Maria Buffon, MD</i>
1:20 pm – 1:40 pm	I99	A Nearly Missed Homicide: Pre-Cremation and Delayed Detection of Gunshot Wounds in a Mistaken Love Triangle <i>Wendy Gunther, MD*</i>

PATHOLOGY/BIOLOGY

1:40 pm – 2:10 pm	I100	An Update on Forensic and Medicolegal Aircraft Accident Investigation: New Challenges Meet Novel Technologies <i>Michael Schwerer, MD*</i>
2:10 pm – 2:30 pm	I101	Familial Dyadic Deaths: A Sample Study From Southern Italy <i>Alessandro Feola, MD, PhD; Edoardo Mazzini, MD; Federica Cascone, MD; Mariavictoria De Simone, MD; Ilaria Fracassi, MD; Paolo Palermo, MD*; Filomena Casella, MD; Pasquale Giugliano, MD; Carlo Pietro Campobasso, MD, PhD</i>
2:30 pm – 2:50 pm	I102	Par for the Course: Exploring Unexpected Golf-Related Fatalities in Northwest Florida <i>Andres Candela, MD*; Deanna Oleske, MD; Lorraine Lopez Morell, MD</i>
2:50 pm – 3:10 pm	I103	Military Defendants Exonerated by Independent Autopsy <i>Bret Dunn, JD*; Gerald Feigin, MD; Gil Sapir, JD, MSc; Benjamin Anderson, JD</i>
3:10 pm – 3:40 pm		Discussion and Q&A

Friday – Session II

Postmortem Markers

8:30 am – 8:50 am	I104	Promising Autophagic Markers in Traumatic Brain Injury: An Immunohistochemical Study <i>Davide Radaelli, MD, PhD*; Tommaso Livieri, MD; Calogero Cuttaia, MD; Alice Mazzetto, BS; Emiliana Giacomello, PhD; Margherita Neri, MD, PhD; Stefano D’Errico, PhD</i>
8:50 am – 9:10 am	I105	Gross, Microscopic, and Immunohistochemical Features of Antemortem Thrombi, Agonal Thrombi, and Postmortem Clots: A Pilot Study <i>Nicola Pigaiani, MD, PhD*; Francesco Ausania, MD, PhD; Vito Cirielli, MD, PhD; Matteo Brunelli, MD, PhD; Federica Bortolotti, MD, PhD</i>
9:10 am – 9:30 am	I106	How Technology Can Enhance the Reliability of Histopathological Forensic Evidence for Use in Court <i>Irene Pradelle, MD*; Matilde Ruju, MD*; Laura Camilla Gasparini, MD; Luca Diani, MD; Giada Rovito, MD; Francesca Righini, PhD; Rosa Maria Gaudio, MD; Margherita Neri, MD, PhD</i>
9:30 am – 9:50 am	I107	Unraveling Sudden Unexpected Death: Metabolomic Insights From the Friuli-Venezia Giulia Sudden Cardiac Death Register in the Young <i>Davide Radaelli, MD, PhD*; Tommaso Livieri, MD; Monica Concato, MD; Raffaella Vetrini, MD; Aneta Aleksova, MD; Mariano Stornaiuolo, PhD; Stefano D’Errico, PhD</i>
9:50 am – 10:10 am	I108	Procalcitonin as a Marker of Sepsis at Autopsy: A Reflective, Novel, Evidence-Based, Effective Point-of-Care Tool <i>Aswini Chandran, MS*; Arneet Arora, MD; Sagar Khadanga, MD</i>
10:10 am – 10:30 am	I109	Trying to Establish a New Paradigm With the Help of Genetic Analysis for Investigating Sudden Cardiac Death in India: A Preliminary Study <i>Jatin Bodwal, MD*; Sudhir Arava, MD</i>
10:30 am – 11:00 am		Discussion and Q&A
11:00 am – 1:00 pm		BREAK

PATHOLOGY/BIOLOGY

The Bigger Picture

1:00 pm – 1:20 pm	I110	Standards Development Activities in Medicolegal Death Investigation and Forensic Pathology <i>J. Keith Pinckard, MD, PhD*</i>
1:20 pm – 1:40 pm	I111	A Comprehensive Framework for Undergraduate Forensic Medicine Training in Turkish Medical Faculties <i>Ersi Kalfoglou, PhD*</i> ; <i>Aykut Taner Güven, MD</i> ; <i>Sotirios Kalfoglou, PhD</i>
1:40 pm – 2:10 pm	I112	Sudden Cardiac Death in the Balkan Area: A Multidisciplinary Approach and Multinational Cooperation <i>Djordje Alempijevic, MD, PhD*</i> ; <i>Zlatko Jakovski, MD, PhD</i> ; <i>Chara Spilopoulou, MD, PhD</i> ; <i>Milica Keckarevic-Markovic, PhD</i> ; <i>Ersi Kalfoglou, PhD</i> ; <i>Davide Radaelli, MD, PhD</i> ; <i>Karin Writzl, MD, PhD</i> ; <i>Aleksandra Stankovic, PhD</i> ; <i>Matteo Dal Ferro, MD</i> ; <i>Aneta Aleksova, MD</i> ; <i>Gianfranco Sinagra, MD</i> ; <i>Giorgia Giroto, PhD</i>
2:10 pm – 2:30 pm	I113	Forensic Medical Evidence and the Assessment of Violence at the International Borders in the Balkan Area <i>Djordje Alempijevic, MD, PhD*</i> ; <i>Alan Mitchell, MBChB</i> ; <i>Ömer Müslümanoğlu, MD</i> ; <i>Alexander Minchev, MD</i> ; <i>Nikola Kovačević, LLM</i>
2:30 pm – 2:50 pm	I114	The 48-Hour Protocol on Deaths Following Traumatic Events at the Hospital of Novara in Eastern Piedmont, Italy: A Review of the Effectiveness of Reporting to the Judicial Authority <i>Federica Collini, MD*</i> ; <i>Alessia Kretschmer, MD</i> ; <i>Sarah Gino, MD</i>
2:50 pm – 3:20 pm	I115	Cognitive Bias in Forensic Pathology: Types, Error, and Mitigation <i>Paul Uribe, MD*</i>
3:20 pm – 3:40 pm	I116	“To Err Is Human”: Ain’t? Medical and Forensic Perspectives on Artificial Intelligence Use in the Italian and European Context <i>Antonio Marzaioli, MD*</i> ; <i>Enrica Macorano, MD</i> ; <i>Giovanni De Gabriele, MD</i> ; <i>Alessandro Cristalli, MD</i> ; <i>Sara Di Trani, MD</i> ; <i>Angela Colucci, MD</i> ; <i>Francesco Introna, MD, PhD</i>
3:40 pm – 4:10 pm		Discussion and Q&A

Friday – Session III

Jay Dix Memorial Lecture Series

9:00 am – 9:10 am	I117	Introduction <i>James Gill, MD</i>
9:10 am – 10:00 am	I117	Firearm Injuries <i>Andrew Baker, MD</i>
10:00 am – 10:15 am		BREAK
10:15 am – 11:05 am	I117	Thermal and Smoke Inhalation Injuries <i>Kanayo Tatsumi, MD</i>

PATHOLOGY/BIOLOGY

11:05 am – 11:55 am	I117	Intoxication Deaths <i>Nicole Jackson, MD</i>
11:55 am – 2:00 pm		BREAK
2:00 pm – 2:50 pm	I117	Sudden Unexpected Deaths in Adults <i>Susan Ely, MD</i>
2:50 pm – 3:05 pm		BREAK
3:05 pm – 3:55 pm	I117	Investigation of Pediatric Deaths <i>Susan Ely, MD</i>
3:55 pm – 4:45 pm	I117	Death Certification <i>James Gill, MD</i>

PSYCHIATRY & BEHAVIORAL SCIENCE

Thursday

Poster Session

- 11:30 am – 1:00 pm **J1** **A Forensic Investigation of a Psychiatric Patient: Cause of Death Associated With Risperidone Usage**
*Vjola Fera, MD**
- 11:30 am – 1:00 pm **J2** **Woman-in-Danger Thermometer: An AI-Driven Predictive Tool Designed to Assess the Risk of Femicide**
Ingrid Knochenhauer de Souza Mendes, MEng; Túlio Leal Corrêa*
- 11:30 am – 1:00 pm **J3** **Medicolegal Approaches to the Analysis of Femicide Victims: Diagnosis, Autopsy, and Forensic Implications**
Antonio Pallante, MD; Grazia Giulia Pantè, MD*; Francesco Sessa, PhD*; Andrea Pashalidis, MD; Giuliana Pennisi, MD*
- 11:30 am – 1:00 pm **J4** **A Psychiatrist's Criminal Liability: A Study of Italian Final Criminal Judgements on Suicide and Hetero-Aggressiveness Cases of the Mentally Ill**
Andrea Cioffi, MD; Camilla Cecannecchia, MD*; Stefania De Simone, MD, PhD; Simona Vittorio, BBA; Luigi Cipolloni, MD, PhD; Stefano Ferracuti, MD*
- 11:30 am – 1:00 pm **J5** **"I Don't Remember . . . It Seems Like I Remember": The Erba Massacre Trial When False Testimony Precludes a Verdict of Innocence**
Anna Maria Casale, PsyD; Vincenzo Lusa, PhD**
- 11:30 am – 1:00 pm **J6** **Attention Deficit Hyperactivity Disorder, Substance Use, and Driving**
Cristian Palmiere, MD; Maria Pia Scarpelli, MD*
- 11:30 am – 1:00 pm **J7** **Evaluation Issues on Imputability and Aggravating Circumstances in Crimes Caused by Pathological Jealousy: A Retrospective Study of 20 Judgments of the Italian Supreme Court of Cassation**
Andrea Cioffi, MD; Camilla Cecannecchia, MD*; Stefania De Simone, MD, PhD; Simona Vittorio, BBA; Luigi Cipolloni, MD, PhD; Stefano Ferracuti, MD*
- 11:30 am – 1:00 pm **J8** **The Effect of Plaintiff Malingering, Deception, and Perceived Reprehensibility on Damage Awards**
Erica Baer, PhD; Richard Conti, PhD; Joseph Preckajlo, MA*
- 11:30 am – 1:00 pm **J9** **Interdependency Between Alexithymia and Alcohol Use Disorder**
Cristian Palmiere, MD; Maria Pia Scarpelli, MD*
- 11:30 am – 1:00 pm **J10** **The Role of Forensic Assessment/Investigation in the Protection of Incapable Adults**
Giancarlo Di Vella, MD; Cristiano Barbieri, MD, PhD; Caterina Bosco, MD; Ignazio Grattagliano, PsyD*

Morning Session I

- 8:30 am – 10:00 am **J11** **Misinformation in Forensic Sciences: False Statements Regarding Parental Alienation Theory**
William Bernet, MD; Yaakov Aichenbaum, MA*; Lawrence DeMarco, JD**
- 10:00 am – 10:15 am **BREAK**

PSYCHIATRY & BEHAVIORAL SCIENCE

Morning Session II

- 10:15 am – 11:00 am **J12** **A Comparison of Virtual and In-Person Forensic Evaluations**
*Lindsay Poplinski, DO**; *Etuajie Oiyemhonlan Halbert, DO**; *Philip Candilis, MD*;
Viviana Alvarez-Toro, MD
- 11:00 am – 11:30 am **J13** **The Convergence of Technology and Mental Health: How Emerging Technologies Are Transforming Forensic Psychiatry**
*Bellanirys Acosta Arias, MD**; *Olufunlola Adefalu, MD**; *Jack Wright, BA*
- 11:30 am – 1:00 pm **BREAK**

Afternoon Session I

- 1:00 pm – 2:15 pm **J14** **Military Sexual Trauma, PTSD, and the Forensic Psychiatric Exam**
*John Chaves, MD**
- 2:15 pm – 3:00 pm **J15** **Forensic Implications of Excited Delirium Syndrome: Diagnostic Challenges and A Case Series**
*Sara Sablone, MD**; *Luigi Buongiorno, MD**; *Andrea Nicola Cardinale, MD**;
Anna Margari, MD; *Alessandro Tavone, MD*; *Giulia Petroni, MD*; *Cinzia Niolu, MD, PhD*;
Gabriele Mandarelli, MD, PhD; *Silvestro Mauriello, MD, PhD*; *Francesco Intronà, MD, PhD*;
Gian Luca Marella, MD, PhD
- 3:00 pm – 3:15 pm **BREAK**

Afternoon Session II

- 3:15 pm – 4:30 pm **J16** **Recovered Memories and False Memories in Sexual Assault and Homicide Investigations**
*Peter Collins, MD, MCA**
- 4:30 pm – 5:00 pm **J17** **The Recent Acceptance of Borderline Personality Disorder for Pretrial Mental Health Diversion in California**
*Isabel Yin, MD**

Friday

Poster Session

- 11:30 am – 1:00 pm **J18** **Cognitive Bias in Forensic Psychiatric Evaluation: A Scoping Review**
*Luigi Buongiorno, MD**; *Federica Mele, MD*; *Giulia Petroni, MD*; *Anna Margari, MD*;
Felice Carabellese, MD; *Roberto Catanesi, MD*; *Gabriele Mandarelli, MD, PhD*
- 11:30 am – 1:00 pm **J19** **Missing White Woman Syndrome: An Evaluation of Bias Surrounding the Presentation of Missing Persons' Cases in True Crime Podcasts**
*Dante McKinnell, MA**; *Erica Baer, PhD*
- 11:30 am – 1:00 pm **J20** **Safe and Sound: A Retrospective Analysis of Deaths in Custody in Rome, Italy, From 2000 to 2024**
*Dalila Tripi, MD**; *Federica Spadazzi, MD**; *Anna Maria Manta, MD**;
Benedetta Baldari, MD, PhD; *Stefania De Simone, MD, PhD*; *Maria Chiara David, PhD*;
Costantino Ciallella, MD; *Luigi Cipolloni, MD, PhD*; *Mariarosaria Aromatario, MD*

PSYCHIATRY & BEHAVIORAL SCIENCE

- 11:30 am – 1:00 pm **J21** **The Role of the Psychological Autopsy in the Analysis of a Case of Fatal Intoxication**
*Carmen Scalise, MD**; *Fabrizio Cordasco, MD, PhD**; *Matteo Antonio Sacco, MD**;
*Isabella Aquila, MD, PhD**; *Saverio Gualtieri, MD*; *Pietrantonio Ricci, MD, PhD*
- 11:30 am – 1:00 pm **J22** **Forgotten Baby Syndrome: Society's Reaction to the Phenomenon Via a Presented Case**
*Nevzat Alkan, MD**
- 11:30 am – 1:00 pm **J23** **General Self-Efficacy Belief as a Predictor of Job Satisfaction in the Crime Prevention Department: The Case of Addis Ababa Police**
*Zelalem Markos Borko**
- 11:30 am – 1:00 pm **J24** **The Role of Trauma in Shaping Antisocial Personality Disorder and Criminal Behavior Among Incarcerated Males**
*Görkem Ayas, MD**; *Vedat Şar, MD*; *Yağmur Aksuna*; *Gamze Akyüz, MD*
- 11:30 am – 1:00 pm **J25** **Examining the Influence of Demographic Factors on Abuse Dynamics: Enhancing the Power Control Wheel Framework for Diverse Populations in VAWA Evaluations**
*Lisa Long, PsyD**; *Marlena Ryba, PhD*
- 11:30 am – 1:00 pm **J26** **Medicolegal Ethics Associated With Access to Insanity Defense Reports**
*Kathleen Patchan, MD**; *Christopher Wilk, MD*; *Liam Guenther, MD*; *Gerardo Collazo, MD*;
Raquel Williams, MD

Morning Session I

- 8:30 am – 9:00 am **J27** **A Novel and Implicit Measure of Self-Regulation: The Internal Moderation Questionnaire (IMQ)**
*Görkem Ayas, MD**; *Vedat Şar, MD*; *Tuğba Türk-Kurtça, PhD*
- 9:00 am – 9:30 am **J28** **Enhanced Trauma-Informed Policing: An Integrated Approach to Mental Health Safety in Law Enforcement Workplaces**
*Gregory Mack, PhD**; *Monica Brooker, PhD**
- 9:30 am – 10:00 am **J29** **The Relevance of Ethnopsychiatric and Clinical Forensic Reports in the Medical Assessment of Asylum Seekers in the Metropolitan City of Milan, Italy**
*Lorenzo Franceschetti, MD, PhD**; *Alessandro Minard, MD*; *Francesca Magli, MS*;
Marzia Marzagalia, MD; *Cristina Cattaneo, MD, PhD, BSc*
- 10:00 am – 10:15 am **BREAK**

Morning Session II

- 10:15 am – 10:45 am **J30** **The Economical Cost of Forensic Mental Health: Are We Saving Some Money?**
*Sebastien Prat, MD**; *Gary Chaimowitz, MBChB*
- 10:45 am – 11:30 am **J31** **Electronic Health Records and the Forensic Examiner: Pitfalls and Implications**
*Vivian Shnaidman, MD**
- 11:30 am – 1:00 pm **BREAK**

PSYCHIATRY & BEHAVIORAL SCIENCE

Afternoon Session I

- 1:00 pm – 1:30 pm **J32** **Do Beliefs About Science Matter? Evidence of the CSI Effect in the United States**
*Brianne Suldovsky, PhD**
- 1:30 pm – 2:00 pm **J33** **Internet Gaming Disorder, Substance Addictions, and Criminal Behavior: An Exploratory Study Among Italian Adolescents**
Valentina Battimiello; Adriana Scuotto*; Maria Pieri, PhD*; Pascale Basilicata, PhD; Massimo Niola, PhD*
- 2:00 pm – 2:30 pm **J34** **The Potential Role of AI in the Process of Radicalization**
Cristina Brasi, MASc; M. Denise Gemmellaro, PhD*
- 2:30 pm – 3:15 pm **J35** **A Review of Preteen Suicides: The Child Death Review Committee of Oakland County, Michigan**
William Cardasis, MD; Ljubisa Dragovic, MD*
- 3:15 pm – 3:30 pm **BREAK**

Afternoon Session II

- 3:30 pm – 4:00 pm **J36** **Pregnant Inmates: An Examination of Reproductive Justice in Correctional Settings**
*Danielle Lenahan, MD**
- 4:00 pm – 4:30 pm **J37** **Crime and Brain Disorders: The Legal Maze of Neuroimaging Evidence**
Carla Occhipinti, MD; Federica Spina, MD*; Chiara Casula, MD; Matteo Leoni, MD; Eleonora Mezzetti, MD; Ilaria Zampieri, PhD; Marco Di Paolo, MD; Pietro Pietrini, MD, PhD*
- 4:30 pm – 5:00 pm **J38** **The Murder of Serena Mollicone: The Need for an Interdisciplinary Approach and the Use of Bayesian Network in a Cold Case**
Laura Volpini, PhD; Luciano Garofano, PhD**

QUESTIONED DOCUMENTS

Thursday

Morning Session

8:00 am – 8:20 am	K1	How to Do Less With More: Screening 101 Known Writers Down to a Manageable Number <i>Mark Goff, BA*</i>
8:20 am – 8:40 am	K2	A Comparison of Documents Written With Different Typewriters and a Determination of Which Typewriter the Document Subject to Examination Is Written From With Reasons <i>Yaren Hande Hüsrevoğlu, BS*</i> ; <i>Zekai Genç, PhD</i> ; <i>Alihan Kocabaş, PhD</i> ; <i>Ümit Ertem, PhD</i> ; <i>Sevil Atasoy, PhD</i>
8:40 am – 9:00 am	K3	Academy Standardization: Progress and Goals for Forensic Document Examination <i>Carl McClary, MS*</i>
9:00 am – 9:40 am	K4	An Introduction to the Forensic Handwriting Analysis Software Handwriter <i>Stephanie Reinders, PhD*</i> ; <i>Alicia Carriquiry, PhD</i> ; <i>Danica Ommen, PhD</i>
9:40 am – 10:00 am	K5	Analyzing Toner Particle Distribution to Sequence Ink Lines and Laser Printing <i>Zain Bhaloo, MS*</i> ; <i>Mathieu Arès, BS</i> ; <i>Brent Ostrum, BS</i>
10:00 am – 10:20 am		BREAK
10:20 am – 10:40 am	K6	An Overview and Comparison of Software Tools for Quantifying the Value of Handwriting Evidence <i>Danica Ommen, PhD*</i>
10:40 am – 11:00 am	K7	An Update on Standards Development Activities Related to Forensic Document Examination <i>Kevin Kulbacki, MSFS*</i>
11:00 am – 11:20 am	K8	Current Status and Future Trends: Computer Science and AI in Forensic Handwriting Casework <i>C. Elisa van den Heuvel, PhD*</i> ; <i>Samiah Ibrahim, BS*</i>
11:20 am – 1:00 pm		BREAK

Afternoon Session

1:00 pm – 1:20 pm	K9	Blocked Photographs: An Exploration of Methods of Separating Photographs Adhered as a Mass by Moisture <i>Mark Goff, BA*</i>
1:20 pm – 1:40 pm	K10	Defining Contemporaneous(ly) <i>Meg OBrien, MS*</i>
1:40 pm – 2:00 pm	K11	Definitive Conclusions: Should They Be Defenestrated? <i>Linton Mohammed, PhD*</i>
2:00 pm – 2:20 pm	K12	Distinguishing Dominant and Non-Dominant Handwriting Using General and Individual Characteristics <i>Andrea Ledić, MChem*</i> ; <i>Ana Kraljević, MS</i> ; <i>Jerković Ivan, PhD</i>

QUESTIONED DOCUMENTS

2:20 pm – 2:40 pm	BREAK	
2:40 pm – 3:00 pm	K13	Font Flexin’ With Aptos: Is This Next-Gen Typeface Slayin’ or Playin’? <i>Linton Mohammed, PhD*</i> ; <i>Gina Hunter, BS</i>
3:00 pm – 3:20 pm	K14	A Forensic Analysis and Comparison of the Degradation of Cristal Violet in Blue Ballpoint Pen Inks Under Room Conditions and Accelerated Aging Conditions <i>Andrea Ledić, MChem*</i> ; <i>Veronika Marinović, PhD</i> ; <i>Ivana Bolanča Mirković</i> ; <i>Stjepan Brzica, MChem</i>
3:20 pm – 3:40 pm	K15	Leopold-Loeb Revisited and Reprised: Document Examiners Help Unravel “The Perfect Crime” <i>Larry Olson, MFS*</i>
3:40 pm – 4:00 pm	K16	The Application of Multispectral Imaging in the Analysis of the Strokes Sequencing on Documents <i>Andrea Ledić, MChem*</i> ; <i>Vladimir Cviljušac, PhD</i> ; <i>Jana Žiljak Gršić, PhD</i> ; <i>Damir Modrić, PhD</i>
4:00 pm – 4:20 pm	K17	The Availability and Detection of Signature and Handwriting Fonts <i>Elaine Wooton, MFS*</i>

Friday

Poster Session

11:30 am – 1:00 pm	K18	An Investigation of Burnt and Unburnt Papers Scribbled With Whiteboard Pen by Destructive and Non-Destructive Methods <i>Melike İlayda Can, BS*</i> ; <i>Zekai Genç, PhD</i> ; <i>Alihan Kocabaş, PhD</i> ; <i>Sevil Atasoy, PhD</i>
11:30 am – 1:00 pm	K19	Counterfeit Cannabis Packaging: Detecting Fakes Through Forensic Document Examination <i>Josep De Alcaraz-fossoul, PhD*</i> ; <i>Lindsey Weinger, MBA</i> ; <i>Marisia Fikiet, PhD</i> ; <i>Richard Crocombe, PhD</i> ; <i>Pauline Leary, PhD</i> ; <i>Brooke Kammrath, PhD</i>
11:30 am – 1:00 pm	K20	Leopold-Loeb Revisited and Reprised: The Documents in the Case <i>Larry Olson, MFS*</i>
11:30 am – 1:00 pm	K21	The Distribution and Detectability of Overcharging on Bills by Using the Same Kind of Different Brand Pens and Different Kinds of Different Brand Pens <i>Dilan Özer, BS*</i> ; <i>Zekai Genç, PhD</i> ; <i>Alihan Kocabaş, PhD</i> ; <i>Sevil Atasoy, PhD</i>

Morning Session

8:40 am – 9:00 am	K22	The Advantages of a Trial Lawyer Also Being an Expert in the Same Subject Matter as the Experts to Be Examined and Cross-Examined: The Ideal Scenario in Questioned Document Litigation <i>Andrew Sulner, JD*</i>
9:00 am – 9:20 am	K23	The Physical and Digital Reassembly, Analysis, and Comparison of Fragmented Documents <i>Şura Dayar, BS*</i> ; <i>Zekai Genç, PhD</i> ; <i>Alihan Kocabaş, PhD</i> ; <i>Umut Kendüz, MSc</i> ; <i>Sevil Atasoy, PhD</i>
9:20 am – 9:40 am	K24	The Odyssey of Building a Functional Digital Forensic Research Library <i>Timothy Campbell, BS*</i>

QUESTIONED DOCUMENTS

9:40 am – 10:00 am		BREAK
10:00 am – 10:20 am	K25	The Use of Natural Resources as Invisible Inks on Different Papers: Visualization With VSC8000 and Ink Production Using Natural Resources <i>İlayda Bülbül, BS*</i> ; <i>Alihan Kocabaş, PhD</i> ; <i>Sevil Atasoy, PhD</i>
10:20 am – 10:40 am	K26	Which Came First? The Copy? Or the Other Copy? <i>Carolyn Bayer-Broring, MFS*</i>
10:40 am – 11:20 am	K27	Rocketbook: The Notebook of the Future, Part 2 <i>Stephanie Kingsbury, MFS*</i>
11:20 am – 1:00 pm		BREAK

The Forensic Document Examiner Forum

1:00 pm – 3:00 pm	K28	The Forensic Document Examiner Forum <i>Carl McClary, MS*</i> ; <i>Karen Nobles, MS</i> ; <i>Samiah Ibrahim, BS</i>
-------------------	------------	---

TOXICOLOGY

Wednesday

Poster Session

7:30 pm – 9:00 pm	L1	A Risk Assessment of Lead Exposure in Glass Industry Workers: Evaluating Occupational Toxicity <i>Nrashant Singh, PhD*</i>
7:30 pm – 9:00 pm	L2	An Alcohol Impairment Evaluation in Cases of Severe Injury <i>Maria Pieri, PhD*; Pascale Basilicata, PhD; Mariagrazia Marisei, MD; Angela Simonelli, PhD; Angela Silvestre, MD; Rossella Guadagni, PhD; Emanuele Capasso, MD, PhD; Massimo Niola, PhD</i>
7:30 pm – 9:00 pm	L3	Biofluid Sampler: A Green and Robust Sampling and Sample Preparation Platform for Forensic Toxicological Analysis <i>Abuzar Kabir, PhD*; Kenneth Furton, PhD</i>
7:30 pm – 9:00 pm	L4	Cannabis-Based Medicines and Driving: Current Legal Issues in Switzerland <i>Cristian Palmiere, MD*; Maria Pia Scarpelli, MD</i>
7:30 pm – 9:00 pm	L5	Cocaine and Aortic Dissection: The Need to Overcome the Underreporting Bias Mariagrazia Marisei, MD* <i>Pascale Basilicata, PhD; Antonio Lombardi, MD; Angela Simonelli, PhD; Angela Silvestre, MD; Rossella Guadagni, PhD; Massimo Niola, PhD; Maria Pieri, PhD</i> <i>(FSF Emerging Forensic Scientist Award Poster Presentation)</i>
7:30 pm – 9:00 pm	L6	Comparative Postmortem Blood Alcohol Concentrations in Cardiac and Peripheral Blood: A Case Series <i>Giulia Ricchezza, MS*; Erika Buratti, PhD; Alice Cerioni, PhD; Gianmario Mietti, PhD; Marta Cippitelli, PhD; Rino Froidi, MS; Mariano Cingolani, MD; Roberto Scendoni, MD, PhD</i>
7:30 pm – 9:00 pm	L7	Ethanol Stability Over Time in Blood Samples Undergoing Headspace Analysis <i>Ava La Lande*; M. Denise Gemmellaro, PhD</i>
7:30 pm – 9:00 pm	L8	Forensic “ToxAlcology”: Is It Really Over for the Forensic Human Community? <i>Maria Pieri, PhD*; Pascale Basilicata, PhD; Mariagrazia Marisei, MD; Angela Simonelli, PhD; Angela Silvestre, MD; Rossella Guadagni, PhD; Claudia Casella, PhD; Massimo Niola, PhD</i>
7:30 pm – 9:00 pm	L9	Leveraging Surveillance Data for the Analysis of Trends, Adulteration, and Novel Substances in the District of Columbia Needle Exchange Programs: A Four-Year Review <i>Snehal Parikh, BS*; William Kim, BS</i>
7:30 pm – 9:00 pm	L10	Mapping Mortality: A Decade’s Review of Drug Usage in Maryland (2014–2024) <i>Nicholas Boire, MD*; Stephanie Dean, MD; Rebecca Phipps, PhD</i>
7:30 pm – 9:00 pm	L11	Revolutionizing Anti-Doping and Sports Forensics: Comprehensive Screening of Nutritional Supplements for WADA-Banned Substances Using High Resolution Mass Spectrometry <i>Astha Pandey, PhD*; Anirudha Dixit, MS; Disha Kothari, PhD; Abhishek Trivedi, MS</i>
7:30 pm – 9:00 pm	L12	The Opioid Crisis in Pakistan and Toxicological Interpretation: A Case Report <i>Muhammad Chaudhary, MPhil*</i>
7:30 pm – 9:00 pm	L13	WITHDRAWN

TOXICOLOGY

- 7:30 pm – 9:00 pm **L14** **The Underreporting of Psychoactive Adulterants of Illicit Drugs of Abuse in Toxicological Samples**
*Shayna Kasher, MSFS**
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 7:30 pm – 9:00 pm **L15** **A Comparison of Sample Preparation Techniques for the Analysis of Drugs of Abuse in Oral Fluids**
Jared Burkhardt; Samantha Herbick, MSFS*
- 7:30 pm – 9:00 pm **L16** **A Gas Chromatography/Mass Spectrometry Analysis of Tetrahydrozoline in Alcoholic Beverage Residue Related to Drug-Facilitated Sexual Assault**
Alyssa Hampton, BS; Ellen Mwenesongole, PhD*
- 7:30 pm – 9:00 pm **L17** **A Look at Nitazenes Our Lab Has Detected Across the Country From 2020 to 2024**
Stuart Kurtz, MS; Laureen Marinetti, PhD; Kevin Shanks, MS*
- 7:30 pm – 9:00 pm **L18** **A Ten-Year Retrospective Review of Death in Custody Toxicology Results From Jefferson County, Alabama**
Amy Theriault, DO; Karen Scott, PhD*
- 7:30 pm – 9:00 pm **L19** **Accidental Acute Intoxication With Gummies Containing Delta-8- Tetrahydrocannabinol**
Stjepan Brzica, MChem; Slavena Cukrov Bezbradica, PhD; Kristina Jurković, PhD; Martina Cvjetko Ljutić*
- 7:30 pm – 9:00 pm **L20** **An Assessment of Cross-Reactivity for Cannabinoids in Blood and Oral Fluid Using Enzyme Immunoassay Kits**
Sara Jablonski, MSFS; Curt Harper, PhD*
- 7:30 pm – 9:00 pm **L21** **An Evaluation of Enzyme-Linked Immunosorbent Assay (ELISA) Screening Kits for the Detection of Nitazene Analogs**
Amanda Pacana, MSFS; Britni Skillman, PhD*
- 7:30 pm – 9:00 pm **L22** **An Incident of Food Poisoning Attributed to Bongkreic Acid and a Forensic Examination of the Deceased in Taiwan**
*Chou Yihung, MS**
- 7:30 pm – 9:00 pm **L23** **Assessing the Stability of NPS Benzodiazepines in Blood, Urine, and Serum Using LC/QqQ/MS**
Savannah Baker, MS; Sara Walton, MS; Donna Papsun, MS; Alex Krotulski, PhD*
- 7:30 pm – 9:00 pm **L24** **Drug/Substance Toxicity-Related Deaths Examined at the West Tennessee Regional Forensic Center and Their Prescription Drug History: A Comparison of 2023 to 2013**
Madeleine Phan, BS; Ibrahim Ortanca, MD*
- 7:30 pm – 9:00 pm **L25** **Evaluating Extraction Parameters for the Detection of Chronic and Single-Dose Drug Exposure in Forensic Hair Analysis Using Design of Experiments**
Kaylyn Keith, BS; Anthony DeCaprio, PhD; Mariana Colome Pena*
- 7:30 pm – 9:00 pm **L26** **Evaluation of the Cross-Reactivity of 27 Parent and 26 Metabolite Tetrahydrocannabinol Analogs Using a Tetrahydrocannabinol Carboxylic Acid ELISA and HEIA Kit**
Taylor Yates, BS; Justin Poklis, BS; Alaina Holt, PhD; Ciena Bayard, BS; Michelle Peace, PhD; Stephen Raso, PhD*

TOXICOLOGY

- 7:30 pm – 9:00 pm **L27** **A Forensic Analysis of Environmental Fate and Biodegradation of Benzodiazepines in Synthetic Wastewater Using SPE-LC/MS**
*Ali Alawi, MS**
- 7:30 pm – 9:00 pm **L28** **Gabapentin Detection and Trends in Alabama Toxicology Cases (2017–2023)**
Belicia Sutton, MSFS;* *Curt Harper, PhD;* *Taylor Williams*
- 7:30 pm – 9:00 pm **L29** **Improving Liquid Chromatography/Mass Spectrometry Sensitivity for Barbiturates**
Ethan Khandaker, BA;* *William Campbell, PhD*
- 7:30 pm – 9:00 pm **L30** **Matrix-Matched Standards for Quantitative Elemental and Molecular Analysis of Hair in Forensic Toxicology**
Kaitlyn Bonilla, MS;* *Ashley Fox;* *Chloe Phillips, BS;* *Matthieu Baudelet, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 7:30 pm – 9:00 pm **L31** **Modification of a Liquid Chromatography/Tandem Mass Spectrometry Method Targeting Lysergic Acid Diethylamide and Its Primary Metabolite to Include Nine Analogs**
Amy Patton, PhD;* *Erin Karschner, PhD;* *Jeffrey Walterscheid, PhD;* *Jason Garcia, PhD*
- 7:30 pm – 9:00 pm **L32** **Old vs. New: A Novel Approach to Blood Alcohol Analysis In the Modern Day Forensic Laboratory.**
*Timothy Fassette, MS**
- 7:30 pm – 9:00 pm **L33** **Profiling Heavy Metals in Kratom Powder Purchased in Southeastern Pennsylvania and Southern New Jersey**
Xavia Pough;* *Tom Gluodenis, PhD*
- 7:30 pm – 9:00 pm **L34** **The Quantitation of an Oral Fluid Drug Panel, Including THC, Using High Resolution Accurate-Mass (HRAM) Orbitrap Mass Spectrometry**
Courtney Patterson, MPS;* *Kerry Hassell, PhD*
- 7:30 pm – 9:00 pm **L35** **Rapid Development of Analytical Methods and Prediction of Retention Times for Inhalants of Abuse on GC Stationary Phases Using Web-Based Modeling Software**
Jessi Collier, BS;* *Whitney Dudek-Salisbury, MS*
- 7:30 pm – 9:00 pm **L36** **The Detection and Quantitation of Alcohol in Packed Red Blood Cells**
Jordan Keller, BS;* *Connor Gailliot, BAS;* *Justin Poklis, BS;* *Carrol Nanco, MCLS;* *Carl Wolf, PhD;* *Grace Williams, PhD*
- 7:30 pm – 9:00 pm **L37** **The Extraction, Isolation, and Analysis of Clonazepam From Blood Using the High-Performance Thin-Layer Chromatography (HPTLC) Technique in Different Solvent Systems**
Sunil Sunil, MS;* *A.K Jaiswal, PhD*
- 7:30 pm – 9:00 pm **L38** **The Postmortem Distribution of the Synthetic Cathinone MDPHP in a Fatal Intoxication Case**
Andrea Costantino, MD;* *Emma Croce, MS*;* *Alexandra Dimitrova, RF*;* *Fabio Vaiano, PhD*;* *Ilenia Bianchi, PhD;* *Vilma Pinchi, PhD;* *Martina Focardi, MD*
- 7:30 pm – 9:00 pm **L39** **The Validation of an Analytical Method for the Quantitation of Xylazine in Human Hair**
*Andre Sukta, MSFS**

TOXICOLOGY

Thursday

Annual Lectureship in Toxicology

8:00 am – 8:15 am		Welcome & Introductions
8:15 am – 9:15 am		Invited Lectureship <i>Michael Baumann, PhD</i> <i>National Institute on Drug Abuse</i>
9:15 am – 9:45 am	L40	An Update on Standards Development Activities in Forensic Toxicology <i>Marc LeBeau, PhD*</i>
9:45 am – 10:00 am	L41	Smith vs. Arizona and Strategies to Support the Admissibility of Toxicology Testimony: Don't Stop Reading at Page 18 <i>M.J. Menendez, JD*</i> ; <i>Barry Logan, PhD*</i>
10:00 am – 10:15 am		BREAK

Postmortem Toxicology and Drug Adulteration

10:15 am – 10:30 am	L42	Beyond the Green Thumb—The Role of Technology in a Case of Suicide by Pesticide Poisoning <i>Luca Diani, MD*</i> ; <i>Giada Rovito, MD*</i> ; <i>Laura Camilla Gasparini, MD</i> ; <i>Irene Pradelle, MD</i> ; <i>Matilde Rujú, MD</i> ; <i>Donata Favretto, MS</i> ; <i>Negar Eftekhari, PhD</i> ; <i>Carmela Vaccaro, MS</i> ; <i>Matteo Marti, MS</i> ; <i>Margherita Neri, MD, PhD</i>
10:30 am – 10:45 am	L43	Comparisons of Blood, Vitreous Fluid, and Urine (When Available): Drug Screen Findings in Over 100 Cases <i>Laureen Marinetti, PhD*</i>
10:45 am – 11:00 am	L44	The Determination of Measurement Uncertainty of Non-Routine Measurements in Forensic Toxicological Casework <i>Ingrid Bosman, PhD*</i> ; <i>Dick-Paul Kloos, PhD</i> ; <i>Camille van Dijk, MS</i> ; <i>Ivo Alberink, PhD</i>
11:00 am – 11:15 am	L45	Evaluating the Pharmacokinetics of Xylazine in Humans: A Paired Forensic and Clinical Model <i>Alex Krotulski, PhD*</i> ; <i>Sara Walton, MS</i> ; <i>Brittany Chapman, BS</i> ; <i>Patricia Martinez, MD</i> ; <i>Aidan Hampson, PhD</i> ; <i>Jyothi Polackal, BS</i> ; <i>Deborah Olabisi, MD</i> ; <i>John Nguyen, BSN</i> ; <i>John Broach, MD</i> ; <i>Brianna Stang, MS</i> ; <i>Alyssa Reyes, MS</i> ; <i>Barry Logan, PhD</i>
11:15 am – 11:30 am	L46	Paired Toxicology Assays for the Quantitation of Medetomidine and the Differentiation of Dexmedetomidine and Levomedetomidine <i>Sara Walton, MS*</i> ; <i>Brianna Stang, MS</i> ; <i>Alex Krotulski, PhD</i> ; <i>Sherri Kacinko, PhD</i> ; <i>Barry Logan, PhD</i>
11:00 am – 1:00 pm		BREAK

TOXICOLOGY

Multidisciplinary Session: Pathology/Biology and Toxicology

1:00 pm – 1:15 pm	L47	Two Fatalities Involving Hydroxychloroquine <i>Teresa Gray, PhD*</i> ; <i>Jennifer Ross, MD</i> ; <i>Marianne Beynon, MD</i>
1:15 pm – 1:30 pm	L48	An Unexpected Fatal Methadone Ingestion in a Child <i>Jordan Taylor, MD*</i>
1:30 pm – 1:45 pm	L49	A Toxicological and Pathological Re-Evaluation of Media-Reported Mitragynine (Kratom) Deaths in Florida <i>Marilyn Huestis, PhD*</i> ; <i>Karl Williams, MD</i>
1:45 pm – 2:00 pm	L50	Endogenous Carbon Monoxide Due to Hemolytic Anemia: A Forensic Red Herring <i>Orianna Thomas, MSFS*</i> ; <i>Sandra Bishop-Freeman, PhD</i>
2:00 pm – 2:15 pm	I66	Drug-Related Deaths in the Elderly: A Five-Year Overview of Western Michigan <i>Abigail Grande, MPH*</i> ; <i>Gemma Harkin, MPH</i> ; <i>Bo Collins, MPH</i> ; <i>Amanda Fisher-Hubbard, MD</i>
2:15 pm – 2:30 pm	I67	Fatal Intoxications vs. Congenital Cardiac Disorders in Sudden Death: Where to Draw the Line? <i>Alexandra Dimitrova, RF*</i> ; <i>Simone Grassi, MD</i> ; <i>Fabio Vaiano, PhD</i> ; <i>Vincenzo Arena, MD</i> ; <i>Oscar Campuzano, MD</i> ; <i>Sabina Strano Rossi, PhD</i> ; <i>Ramon Brugada, MD</i> ; <i>Antonio Oliva, MD, PhD</i>
2:30 pm – 2:45 pm	I68	Illicit Drug Deaths in Decedents Over 60 Years of Age in the City and County of San Francisco From 2020 to 2024 <i>Ellen Moffatt, MD*</i> ; <i>Luke Rodda, PhD</i> ; <i>Anson Tsang, MS</i>
2:45 pm – 3:00 pm	I69	Sodium Azide/Nitrite Suicides in the Netherlands Between 2015 and 2022 <i>Karen van den Hondel, PhD*</i> ; <i>Dominique van Pelt, MS</i> ; <i>Lizanne Schweren, PhD</i> ; <i>Manon Ceelen, PhD</i>
3:00 pm – 3:15 pm	I70	Fatal Drug Intoxication in the Pediatric Population of El Paso, Texas <i>Romina Malerba, MD</i> ; <i>Alejandro Partida Contreras, MD*</i> ; <i>Adam Gonzalez, MD</i> ; <i>Mario Rascon, MD</i>
3:15 pm – 3:30 pm		BREAK

Toxicology Special Session: Drugs and Driving

3:30 pm – 3:45 pm	L51	Recommendations for Drug Testing in Driving Under the Influence of Drugs (DUID) and Motor Vehicle Fatality Cases—2025 Update <i>Amanda D’Orazio, MS, D-AFBT-FT*</i> ; <i>Barry Logan, PhD</i> ; <i>Amanda Mohr, MS</i> ; <i>Ayako Chan-Hosokawa, MS</i> ; <i>Curt Harper, PhD</i> ; <i>Marilyn Huestis, PhD</i> ; <i>Sarah Kerrigan, PhD</i> ; <i>Jennifer Limoges, MS</i> ; <i>Amy Miles, BS</i> ; <i>Colleen Scarneo, MS</i> ; <i>Karen Scott, PhD</i>
3:45 pm – 4:00 pm	L52	New York’s Drug Recognition Expert (DRE) Oral Fluid Field Certifications <i>Jennifer Limoges, MS*</i>
4:00 pm – 4:15 pm	L53	How High Will It Go? The Alarming Rise of Fentanyl Tolerance <i>Ayako Chan-Hosokawa, MS*</i> ; <i>Zachary Shaner</i>

TOXICOLOGY

4:15 pm – 4:30 pm	L54	Driving Under the Influence Snapshot: Uncovering Drug Prevalence Trends in Washington, DC <i>Kimberley Heine, MFS*; Samantha Tolliver, PhD</i>
4:30 pm – 4:45 pm	L55	Drug Use by Drivers in Fatal Traffic Crashes <i>Amanda Mohr, MS*; Grace Cieri, MS; James Gill, MD; Barry Logan, PhD</i>
4:45 pm – 5:00 pm	L56	Impaired Driving Cases With Gabapentin <i>Nicholas Tiscione, MS*; Edward Zumaeta, MS</i>

Friday

Novel Psychoactive Substances

8:00 am – 8:15 am	L57	2024 Novel Psychoactive Substance Trends and a Comparison Against NPS Discovery Scope Recommendations <i>Donna Papsun, MS*; Alex Krotulski, PhD; Barry Logan, PhD</i>
8:15 am – 8:30 am	L58	Metabolic Profiling of the Semi-Synthetic Tetrahydrocannabinols (THCs), Delta 10-THC, and Delta 6a,10a-THC, Using Human Liver Microsomes and LC/MS <i>Nathan Layle, MS*; Jonathon Bassman, MS; Marc Gregerson, PhD; Jeffrey Williams, MS; Donna Iula, PhD</i>
8:30 am – 8:45 am	L59	Cytochrome P450-Mediated Metabolism of Isotonitazene, a Novel Synthetic 2-Benzylbenzimidazole Opioid <i>Madison Schackmuth, PhD*; Sarah Kerrigan, PhD</i> <i>(FSF Emerging Forensic Scientist Award Oral Presentation)</i>
8:45 am – 9:00 am	L60	Metabolite Profile Commonalities of Methoxylated Fentanyl Analogs <i>Jillian Morgan, MS*; Candice Bridge, PhD</i>
9:00 am – 9:15 am	L61	Novel Psychoactive Substance Presence in Fentanyl/Norfentanyl-Positive Clinical Urine Specimens <i>Theresa Meli, MS*; Jillian Neifeld, MS; Sarah Bartock, PhD</i>
9:15 am – 9:30 am	L62	The Prevalence of p-Fluorofentanyl and Xylazine in Postmortem Fentanyl Casework: A Three-Year Retrospective Study <i>Marco Ballotari, PhD*; Michael Truver, PhD; Jennifer Hoyer, MS; Bruce Goldberger, PhD; Chris Chronister, PhD</i>
9:30 am – 9:45 am	L63	The Detection of Novel Psychoactive Substances in Urine Specimens From a Large United States Prison System <i>Jillian Neifeld, MS*; Theresa Meli, MS; Sarah Bartock, PhD</i>
9:45 am – 10:00 am	L64	Two Fatal Cases Involving N-Ethylpentadone in a Secured Forensic Psychiatric Clinic <i>Jeroen Roosendaal, PhD*; Ingrid Bosman, PhD; Pieter Van Driessche, MD; Janneke Hulshof, PhD; Bas van de Velde, MS; Theo Klein, PhD; Kristof Maudens, PhD</i>
10:00 am – 10:15 am		BREAK

TOXICOLOGY

Alcohol & General Forensic Toxicology

- 10:15 am – 10:30 am **L65** **Insights Into Phosphatidylethanol (PEth) 16:0/18:1 Formation and Degradation Analysis by Supercritical Fluid Chromatography-Tandem Mass Spectrometry**
*Munchelou Gomonit, BS**; *Markus Roman, MS*; *Britni Skillman, PhD*; *Michael Truver, PhD*;
Robert Kronstrand, PhD
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 10:30 am – 10:45 am **L66** **Alcohol Extrapolation: Contentions Within the Scientific and Legal Systems**
*Kira Bochard, MScFS**; *Lynne Seborowski, JD*; *John Brick, PhD*
(FSF Emerging Forensic Scientist Award Oral Presentation)
- 10:45 am – 11:00 am **L67** **Performing Blood Alcohol Calculations According to ASB 122 Using a Simple Spreadsheet**
*Rebecca Hartman, PhD**; *Svante Vikingsson, PhD*
- 11:00 am – 11:15 am **L68** **Drug-Facilitated Crime: A Seven-Year Review of Drug Positivity**
*Meaghan Hessler, MSFS**; *Sherri Kacinko, PhD*; *Barry Logan, PhD*
- 11:15 am – 11:30 am **L69** **An Investigation Into the Utility of Creatinine and the Submaxillary Gland Androgen-Regulated Protein 3B as Adulteration Biomarkers and Normalization Factors in Oral Fluid**
*Marta Concheiro-Guisan, PhD**; *Christopher McGrowder, BS*; *Alejandro Ocampo, MS*;
Mechthild Prinz, PhD
- 11:30 am – 1:00 pm **BREAK**

Toxicology Special Session: Pediatric Toxicology

- 1:00 pm – 3:00 pm **L70** **Postmortem Pediatric Forensic Toxicology: Children Are Not Small Adults**
Nikolas Lemos, PhD; *Timothy Rohrig, PhD*

LAST WORD SOCIETY

Thursday

Moderator: *Kenneth Melson, JD*

Co-Moderator: *Carla Noziglia, MS*

- | | | |
|-------------------|------------|--|
| 8:00 pm – 8:20 pm | LW1 | The Doll and Its Maker: The Tale of Three Men Who Shaped Modern Forensic Practice Told Through Their Forensic Casework
<i>Brian Gestring, MS*</i> |
| 8:20 pm – 8:40 pm | LW2 | The Lampshades and Pocket Knife Pouch From the Buchenwald Concentration Camp Are Made From Human Skin
<i>Mark Benecke, PhD*</i> ; <i>Antoaneta Trommer, MSc</i> ; <i>Sandra Stenzel, PhD</i> ;
<i>Kristina Baumjohann, MSc</i> ; <i>Holm Kirsten, MSc</i> |
| 8:40 pm – 9:00 pm | LW3 | Weaponizing Psychiatry: Not a Thing of the Past
<i>Corina Freitas, MD*</i> ; <i>George Annas, MD</i> ; <i>Carmen Nichita, MD</i> |
| 9:00 pm – 9:20 pm | LW4 | (Un)solving Jack the Ripper: How Bias and Prejudice Shaped the Search for the Whitechapel Killer
<i>Matteo Borrini, PhD*</i> |
| 9:20 pm – 9:40 pm | LW5 | The Survivors of the Battle of Shiloh—A Photo Legacy
<i>Colleen Fitzpatrick, PhD*</i> |

YFSF POSTER SESSION

Wednesday

Poster Session

- 11:30 am – 1:00 pm **Y1** **Assessing the Accuracy and Precision of Crime Scene Measurements Obtained From Apple LiDAR Scans**
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **Y2** **Utilizing Honey Bees (*Apis Mellifera*) as a Surveillance and Monitoring Technique for Bacterial Pathogens in Specific Environments**
Jordan Walter, BSc; James Creecy, PhD*
- 11:30 am – 1:00 pm **Y3** **Human Profiling: The Application of the Oral Microbiome in the Prediction of Geographic Origin**
Nengi Ogbanga, PhD; Andrew Nelson, PhD; Darren Smith, PhD; Noemi Procopio, PhD*
- 11:30 am – 1:00 pm **Y4** **Understanding Postmortem Changes in the Porcine Muscle Metabolome for Postmortem Interval Estimation**
Maria Elena Chiappetta, MSc; Sara Locorriere, BSc; Peter Cross, MSc; Andrea Bonicelli, PhD; Noemi Procopio, PhD*
- 11:30 am – 1:00 pm **Y5** **The Rearing and Forensic Use of *Calliphora Vomitoria* Blow Fly Larvae**
Isabelle Cucinotta, BS; Heather Coyle, PhD*
- 11:30 am – 1:00 pm **Y6** **Psychiatry Resident Compliance With the Informed Consent Process for Voluntary Psychiatric Hospitalization**
Cecilia Zemanek, MD; James Knoll, MD*
- 11:30 am – 1:00 pm **Y7** **Detecting Peri- and Post-Menopausal Bone Changes Utilizing Micro-CT for Forensic Anthropology**
Theresa De Cree, MS; Shelby Garza, MA; Emily Brooks, MS; Emma Giacomello, MA (FSF Emerging Forensic Scientist Award Poster Presentation)*
- 11:30 am – 1:00 pm **Y8** **Breaking the Silence: A Study of the Efficacy of Diverse Interrogation Methods**
*Rayna Yang**
- 11:30 am – 1:00 pm **Y9** **Visualizing Risk Factors of Missingness: How Spatial Software Can Illuminate Structural Violence**
Sarajane Smith-Escudero, BA; Jesse Goliath, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)*
- 11:30 am – 1:00 pm **Y10** **Gendered Language Discourse in Forensic Sciences Proceedings**
Samantha Unwin, BA; Samantha Blatt, PhD; Jose Sanchez, BS; Elizabeth Redd, PhD*
- 11:30 am – 1:00 pm **Y11** **A Quantitative Analysis of Explosive Taggants in Forensic Samples Using Total Vaporization-Headspace/Gas Chromatography/Mass Spectrometry (TV- HS/GC/MS)**
Alexis Hecker, MS; John Goodpaster, PhD; Jacqueline Boulet*
- 11:30 am – 1:00 pm **Y12** **Fingerprint Age Determination Using Spectrometry Imaging by Analyzing and Comparing the Degradation of Specific Compounds Within the Fingerprint Residue in Crime Scene and Surrounding Areas**
*Esmael Mahmud, BSc**

YFSF POSTER SESSION

- 11:30 am – 1:00 pm **Y13** **Non-Human Proxies in Human Skeletal Research: Some Sampling and Treatment Considerations**
*Dakota Bell, MS**; *Luis Cabo, MS*; *Francisco Medina Paz, PhD*; *Sara C. Zapico, PhD*;
Joe Adserias-Garriga, PhD
- 11:30 am – 1:00 pm **Y14** **To Scale or Not to Scale: The Accuracy and Impact Behind Scaling Three-Dimensional (3D) Models**
*Ashley Paris, BS**; *Micki Besse, MS*; *Savanna Agilar, MS*; *Heather Walsh-Haney, PhD*
- 11:30 am – 1:00 pm **Y15** **A Composition of Decomposition in Three Varying Conditions Involving Body Coverage Using Pig Carcasses**
*Greta Zahn, BA**; *Teja Vayuvegula, BAS*; *Emily Rancourt, MSFS*; *An-Di Yim, PhD*;
Joseph Dizinno, DDS
- 11:30 am – 1:00 pm **Y16** **Designing Cerium-Doped Copper Oxide-Based Nanozymes for Microfluidic Sensing of Pesticides**
*Aditi Kishor Dhamne, MSc**
- 11:30 am – 1:00 pm **Y17** **An Evaluation of Optimal Pretreatment and Quantitative Method Pairings for the Analysis of GC/MS Data From Weathered Gasoline**
*Grace Boyer**; *Mary Gregg, PhD*
- 11:30 am – 1:00 pm **Y18** **Integrating Machine Learning and ATR/FTIR Spectroscopy for Geographical Origin Identification to Combat Illegal Wood Trafficking**
*Akanksha Sharma, MS**; *Vishal Sharma, PhD*
- 11:30 am – 1:00 pm **Y19** **Optimizing OdoPlex Primers for Use in Pennsylvania Elk**
*Tianna Warner, BS**; *Mitchell Holland, PhD*; *Nicole Chinnici, DHSc*; *Jason Brooks, PhD*
- 11:30 am – 1:00 pm **Y20** **An Investigation Into the Feasibility of ICP/OES With Discriminant Function Analysis for the Forensic Characterization of Red Lipstick Samples**
*Caroline Wisler, BS**; *Ellen Hondrogiannis, PhD*
- 11:30 am – 1:00 pm **Y21** **Transforming Bioarchaeology: Computer Vision for Sex Identification in Skeletal Remains**
*Kate Collette, BA**
- 11:30 am – 1:00 pm **Y22** **Investigating the Limits of Low-Input DNA Libraries for Genome Sequencing of *Cryptosporidium***
*Katherine Hshieh, BS**; *Jenny Maloney, PhD*; *Aleksey Molokin, MSc*
- 11:30 am – 1:00 pm **Y23** **A Civil War Field Hospital: STR Analysis of Samples Collected From a Bloody Surgical Table**
*Alyssa Spillar, BS**; *Natalie Spencer, BS*; *Kristin Mossé, MS*; *J. McClintock, PhD*
- 11:30 am – 1:00 pm **Y24** **Cartridge Casings in Forensic Science: An Analyzation and Comparison of Cartridge Casings Fired From Unknown and Known Firearms**
*Anna Sommerville, BS**; *Kristin Mossé, MS*
- 11:30 am – 1:00 pm **Y25** **Pen Ink Analysis Via Raman Spectroscopy**
*Alex Potter, BSc**; *Ellen Hondrogiannis, PhD*; *Mary Sanjini Devadas, PhD*
- 11:30 am – 1:00 pm **Y26** **A Gas Chromatography/Mass Spectrometry and Pyrolysis Gas Chromatography/Mass Spectrometry Analysis of Lubricant and Spermicide in Condoms and Personal Lubricants**
*Laura Cross**

YFSF POSTER SESSION

11:30 am – 1:00 pm	Y27	Evaluating the General Acceptance of Race-Neutral Statistical Analyses of CODIS Loci <i>Isabelle Reed*</i> ; James Creecy, PhD
11:30 am – 1:00 pm	Y28	Utilizing Fragmentation of the Gentueri CollectEject Swab for CODIS Upload <i>Hannah Schaeffer, BS*</i> ; Pamela Marshall, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	Y29	Evaluating the Reliability of the Megyesi Total Body Scoring Method on People of Color <i>Eliana Gutierrez, MA*</i> ; Danny Wescott, PhD
11:30 am – 1:00 pm	Y30	The Characterization and Quantification of Cell-Free DNA in Touch Samples <i>Veronica Poole*</i> ; Michael Marciano, PhD
11:30 am – 1:00 pm	Y31	A Robustness Analysis of High-Dimensional Consensus (HDC) Mass Spectra in Forensic Drug Identification <i>Briana Capistran, PhD</i> ; Wencheng Zhong, MEng*; Amudhan Krishnaswamy Usha, PhD; Anthony Kearsley, PhD
11:30 am – 1:00 pm	Y32	Maximum Likelihood Techniques for Discriminating Mass Spectra of Isomers <i>Amudhan Krishnaswamy Usha, PhD*</i> ; Briana Capistran, PhD; Anthony Kearsley, PhD
11:30 am – 1:00 pm	Y33	The Persistence of Trace DNA Samples in a Carjacked Scenario <i>Daniel Leitholf, BS*</i> ; Bas Kokshoorn, PhD; Fabio Oldoni, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)
11:30 am – 1:00 pm	Y34	The Effect of Ethanol on GHB UDP-Glucuronosyltransferase Activity <i>Julie Loison, BS*</i> ; Robert Powers, PhD
11:30 am – 1:00 pm	Y35	Problematic Exclusionary Differences: The Tyranny of Universal Standards for Determining Exclusionary Differences <i>Janean Hanka, MS*</i> ; JoAnn Buscaglia, PhD; Jack Hietpas, PhD; Danica Ommen, PhD; Christopher Saunders, PhD
11:30 am – 1:00 pm	Y36	An Investigation of the Impact of the Fire Debris Sample Extraction Process on Latent Fingerprints <i>Hope Hardman, BS*</i> ; Robyn Lewis, BS; Derek Hardy, BA; Kimberly Kunkler, PhD
11:30 am – 1:00 pm	Y37	Using Historical Biocultural Variables and Vitamin D Deficiency to Assist With Biological Profiles <i>Kristy Henson, MS*</i>
11:30 am – 1:00 pm	Y38	The Impact of Different Environments on DNA Degradation in Decomposing Mammalian Specimens <i>McKenzie Lamm*</i> ; Kristy Henson, MS
11:30 am – 1:00 pm	Y39	An LC/MS/MS Analysis of Novel Psychoactive Arylcyclohexylamines in Blood <i>Sean Lordo, BS*</i> ; Sara Walton, MS; Michael Truver, PhD; Alex Krotulski, PhD; Anthony Costantino, PhD
11:30 am – 1:00 pm	Y40	Investigating the Ability to Generate DNA Profiles From Swabs of the Body Surface Utilizing Rapid DNA Technology: A Pilot Study <i>Nicole Clayton, BS*</i> ; Kaitlyn Glavee, BA; Krista Latham, PhD; Jami Sego, MS; Stephen Nawrocki, PhD

YFSF POSTER SESSION

- 11:30 am – 1:00 pm **Y41** **The Development of a Quantitative Method for the Analysis of Illicit and Novel Benzodiazepines in Tablets Using Ultra-Performance Liquid Chromatography Coupled With Triple Quadrupole Mass Spectrometry**
Brielle Etze, BS;* *Joshua DeBord, PhD;* *Alex Krotulski, PhD;* *Heather Harris, JD*
- 11:30 am – 1:00 pm **Y42** **DNA in Drugs: An Interdisciplinary Approach to Identify Drugs and the DNA Within**
Jaycie Esteban, BS;* *Lindsay Kotchey, MS;* *Joshua DeBord, PhD;* *Joshua Kotchey, MSFS;* *Fabio Oldoni, PhD;* *Heather Harris, JD*
- 11:30 am – 1:00 pm **Y43** **LC/QqQ/MS Method Development and Validation for the Quantitative Analysis of Drugs and Their Metabolites in Postmortem Blood**
Allison Blocker, BS;* *Amanda Mohr, MS;* *Brittany Casey, PhD;* *Anthony Costantino, PhD*
- 11:30 am – 1:00 pm **Y44** **A 12-Month Study on the Storage Conditions of Ignitable Liquids on Carbon Strips Used for Forensic Fire Debris Analysis**
Imani Peat;* *Amanda Burkhart, PhD*
- 11:30 am – 1:00 pm **Y45** **An Analysis of Locally Purchased $\Delta 8$ -Tetrahydrocannabinol Products Via Gas and Liquid Chromatography**
Austin Vest;* *Amanda Burkhart, PhD*
- 11:30 am – 1:00 pm **Y46** **An Investigation of DNA Contribution From Trace Samples Recovered From a Hammer Used in a Simulated Assault Scenario**
Hope Rozycki, BS;* *Bas Kokshoorn, PhD;* *Mechthild Prinz, PhD;* *Fabio Oldoni, PhD*
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **Y47** **The People Who Do Forensic Anthropology: Inferences From Interviews With Ten Forensic Anthropologists**
*Valerie Arroyo, BA**
- 11:30 am – 1:00 pm **Y48** **Mapping Mortality: A Decade's Review of Drug Usage in Maryland (2014–2024)**
Nicholas Boire, MD;* *Stephanie Dean, MD;* *Rebecca Phipps, PhD*
- 11:30 am – 1:00 pm **Y49** **Forensic Analysis of PDFs: The Role of Peritus in Standardization and Reproducibility**
Dineusa Maria do Amaral;* *Cristiane Barbosa**
- 11:30 am – 1:00 pm **Y50** **Echoes of a Shotgun: Unraveling the Forensic and Clinical Mystery of Multiple Gunshot Wounds in a 26-Year-Old Male**
Treasa James, MBBS;* *Akhilesh Pathak, MD*

Thursday

Poster Session

- 11:30 am – 1:00 pm **Y51** **An Assessment of Postmortem Interval by Analyzing Cellular Changes in Bone Marrow in Autopsy Cases: An Observational Study**
Treasa James, MBBS;* *Akhilesh Pathak, MD*
- 11:30 am – 1:00 pm **Y52** **The Extraction, Amplification, and Analysis of Human DNA Recovered From Carrion Larvae and Adult Flies (*Sarcophaga Bullata*)**
Katie Long, BS;* *Kristy Henson, MS*

YFSF POSTER SESSION

- 11:30 am – 1:00 pm **Y53** **CODIS-Eligible DNA Collection From Sexual Assault Victims**
*Ella Noha**; Abimbola Famurewa, MPH; Jenny Black, BSN; Rebecca Vieh, MS;
Nancy Downing, PhD
- 11:30 am – 1:00 pm **Y54** **Age Dynamics in the Violence Reporting and Examination Process for Female Victims in Santa Catarina, Brazil (2021–2024)**
*Ingrid Knochenhauer de Souza Mendes, MEng**; Túlio Leal Corrêa
- 11:30 am – 1:00 pm **Y55** **The Early Identification of Respiratory Illnesses in Infants/Children in Medicolegal Death Investigation Practice**
*Carletta Dunn, MS**
- 11:30 am – 1:00 pm **Y56** **Analyzing the Photo-Oxidation Effects of UV on the Optical Properties and Vibrational Spectra of Synthetic Fibers**
*Vicky Wang, BS**; Walter Rowe, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 am – 1:00 pm **Y57** **A Comparison of Confiscated Vaping Products From Virginia Schools From 2019–2020 to 2022–2024**
*Meredith Buckmire**; Kelsey Moss, BS; Alaina Holt, PhD; Ashleigh Outhous, MS;
Justin Poklis, BS; Caroline Cobb, PhD; Michelle Peace, PhD
- 11:30 am – 1:00 pm **Y58** **Fetal Pig Decomposition in Western Pennsylvania: A Characterization of Burial Environment and the Decomposition Process in a Western Pennsylvania Non-Human Outdoor Decomposition Facility**
*Dakota Dickerson, BA**
- 11:30 am – 1:00 pm **Y59** **A Novel Technique to Identify Impurities Recovered With DNA Swabbing From Unfired Brass Ammunition**
*AJ Troyer, BSFS**; Desiree Bliss, BS; Sangeetha Balabhadra, PhD; Khalid Lodhi, DSc
- 11:30 am – 1:00 pm **Y60** **A Comprehensive Study of 3D Scanning and Mapping Technology in Forensic Investigations: Accuracy, Efficiency, and Volume**
*Emma Mancuso, BS (expected May 2025)**; Jessica Abbott, PhD
- 11:30 am – 1:00 pm **Y61** **Using the Truncated Normal Distribution for Value of Evidence in the Forensic Identification of Source Problems**
*Dylan Borchert, MS**; Semhar Michael, PhD; Christopher Saunders, PhD
- 11:30 am – 1:00 pm **Y62** **A Qualitative and Quantitative Analysis of Heavy Metals in Topical Cannabis Pain Relief Products**
*Sarah Murphy, BS**; Marisia Fikiet, PhD; Alyssa Marsico, PhD
- 11:30 am – 1:00 pm **Y63** **The Identification and Quantification of Illicit Drugs in Blood Using Stir Bar Sorptive Extraction and LC/QqQ/MS**
*Abigail Noll, BS**; Stephanie Wetzel, PhD; Sean Fischer, PhD; Ashley Ebert, PhD
- 11:30 am – 1:00 pm **Y64** **Optimizing Simultaneous DNA, RNA, and Protein Extraction From Human Teeth: The Effects of Incubation Time and Environmental Factors**
*Maria Castagnola, MA**; Mayaas Hassan, BA; Alixs Pujols, BS; Shelby Feirstein, MS;
Luis Cabo, MS; Joe Adserias-Garriga, PhD; Sara C. Zapico, PhD

YFSF POSTER SESSION

- 11:30 am – 1:00 pm **Y65** **The Influence of Heat on Animal Fiber Transformation: Macroscopical and Microscopical Approaches**
Hwan Hee Lee, BS; Walter Rowe, PhD*
- 11:30 am – 1:00 pm **Y66** **A Portable Microfluidic Biochip for the Simultaneous On-Site Detection of Streptococcus Pneumoniae and Bordetella Pertussis for Forensic Pathology Investigation**
Angel Gutierrez Ruiz; Ariana Almanza*; Xiujun Li, PhD*
- 11:30 am – 1:00 pm **Y67** **Investigating Without A Badge: How Civilian Detectives Influence Forensic Science and Law Enforcement**
*Emily Lentsch, BS**
- 11:30 am – 1:00 pm **Y68** **The Effects of Anxiety and Depression on Adolescent Offender Behavior**
Maylynn Burns; Rose Danek, PhD*
- 11:30 am – 1:00 pm **Y69** **Posthumous Sperm Viability: Exploring the Impact of Time Since Death for Forensic and Reproductive Applications in India**
Mrinal Patnaik, MD; Raghvendra Vidua, MD; Arneet Arora, MD; Ashwani Tandon, MD*
- 11:30 am – 1:00 pm **Y70** **Isolating Novel DNA Methylomic Bone Signatures for Age Estimation in Fresh and Forensic Samples**
Luke W. Gent, Mrs, BSc; Edward Schwalbe, PhD; Dean Thompson, PhD; Noemi Procopio, PhD*
- 11:30 am – 1:00 pm **Y81** **Volatile Organic Compounds (VOC) of Decomposition of Tissues Exposed to Diphenhydramine and Ibuprofen Influence on Fly Attraction**
Mei Conlon; Ashley Almeida, BS; Jovina Monteiro, BS; Samantha Sawyer, PhD*
- 11:30 am – 1:00 pm **Y82** **How Do Muzzle Velocity, Bullet Mass, and Overall Kinetic Energy Influence Skeletal Fracture Initiation and Propagation Patterns?**
Delaney Edwards, MA; Mariyam Isa, PhD*

Friday

Poster Session

- 11:30 am – 1:00 pm **Y71** **The Variation of Aerosolized Nicotine as Ethanol Concentration Increases in E-Cigarette Formulations**
Jessemia Meekins, BS; Justin Poklis, BS; Michelle Peace, PhD; Abby Veaser, MFS*
- 11:30 am – 1:00 pm **Y72** **An Analysis of the Incidence of Selected Opioids Seized Across Canada, 2018–2022**
Bella Lehtamaki-Croiser, BSc; Matthew Leon, BSc; James Watterson, PhD*
- 11:30 am – 1:00 pm **Y73** **The Unsupervised Learning of Individuals in Keystroke Dynamics Via Semi-Supervised Multilayer Mixture Models**
Andrew Simpson, MS; Semhar Michael, PhD*
- 11:30 am – 1:00 pm **Y74** **An Analysis of Human DNA Extraction From Plants in a Mock Burial**
Rebecca Sines, BS; Lyndsie Ferrara, PhD; Sheree Hughes, PhD; Pamela Marshall, PhD*
- 11:30 am – 1:00 pm **Y75** **Examining the Presence of Foreign DNA on Neck Swabs**
Alexa Gonzalez Morales, BS; Lyndsie Ferrara, PhD*

YFSF POSTER SESSION

- 11:30 am – 1:00 pm **Y76** **The Persistence of Human eDNA in Air**
*Pamela Marshall, PhD; Lyndsie Ferrara, PhD; Kayla Houghton, BS**
- 11:30 am – 1:00 pm **Y77** **The Development of a Multilocus Sequence Typing Scheme for Characterizing Geographically Distributed *Yarrowia Lipolytica* Strains**
Renea Douglas, BSc; James Crill, BAS*
- 11:30 am – 1:00 pm **Y78** **Subjective to Objective: An Investigation of Manual and Digital Qualitative Color Change Tools**
Giavanna Bassi, BS; Savanna Agilar, MS; Micki Besse, MS; Heather Walsh-Haney, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)*
- 11:30 am – 1:00 pm **Y79** **The Application of ATR/FTIR Spectroscopy for Differentiation of Liquid Cosmetic Foundations**
*Kelly Elkins, PhD; Jaden Force, BS**
- 11:30 am – 1:00 pm **Y80** **The Effect the Distance Between the Sample and Charcoal Strip and the Type of Passive Headspace System Have on Overall Chromatographic Patterns of Ignitable Liquid Residues**
Emily Gondek, BS; Ellen Hondrogiannis, PhD*

PROGRAM COMMITTEE FINANCIAL DISCLOSURE

As a sponsor of continuing education, the American Academy of Forensic Sciences (AAFS) must ensure balance, independence, objectivity, and scientific rigor in all its educational activities. All faculty participating in a sponsoring activity are expected to disclose any significant financial interest or other relationship: (1) with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services discussed in an educational presentation; and (2) with any commercial supporters of the activity. (Significant financial interest or other relationships can include such things as grants or research support, employee, consultant, major stockholder, member of speaker's bureaus, etc.) AAFS has an established policy regarding conflicts of interest that includes decisions the Program Committee members may make in selecting content for the Annual Scientific Meeting Program. By serving on the committee, regardless of the role, each member has agreed to comply with Section 1.4.7. of the AAFS *Policy and Procedure Manual*.

To serve on the 2024–25 Program Committees, it is required that relevant AAFS staff members, program committee members, and/or reviewers complete a Financial Disclosure Form before being provided access to review submissions for the program. For continuing education accreditation purposes, the disclosed relationships are published below so learners are aware of the nature of any relationships that may impact the selection of presentations for the program. If a committee member failed to provide complete disclosure of a relevant financial interest or relationship, the committee member or reviewer was not allowed to serve. The executed Faculty Disclosure Forms are on file in the AAFS Office.

De Crise, Dean

Lilly (Non-Mutual Funds Stock Ownership/Stock Options)

Pope, Katharine

Forensics Found, LLC (Employee/Owner)

Volz, Jessica

The Deep South Center for Occupational Health and Safety (Grant/Research Support)

AUTHOR FINANCIAL DISCLOSURE

As an accredited provider of Continuing Medical Education, the American Academy of Forensic Sciences requires speakers to disclose any real or apparent conflict of interest they may have related to the content of their presentation(s). The existence of commercial or financial interest of authors related to the subject matter of their presentation(s) should not be construed as implying bias or decreasing the value of their presentation(s). However, disclosure should help participants form their own judgments. AAFS and the Program Committee review the submissions to ensure that the content is educational and not a commercial presentation for companies and their products. Participants may notify AAFS by email (meetings@aafs.org) should any presentation be considered solely a commercial endorsement presentation. Notification should include presentation number/ID (e.g., BS10, E100, W30) and speaker name.

If an author failed to provide complete disclosure of the discussion of commercial products, a relationship with the manufacturer including employee/employer relationship, sources of support for the research project, and/or the discussion of unlabeled or unapproved uses of pharmaceuticals/medical devices, the presentation was not accepted. Authors are required to disclose at the beginning of each presentation any information disclosed and listed below. Copies of the executed disclosure forms are kept on file in the AAFS office.

The following presenting authors have disclosed financial relationships with commercial entities.

A

Adams, Nathaniel – G15, G23
Forensic Bioinformatic Services: Employee / Owner
Allan, William – B138, G22
Cybergenetics: Employee / Owner
Ang, Jason – Y1
FARO Technologies Inc.: They provided hardware & software access
Recon 3D Inc.: They provided software access & assistance
Anna, Franzoni – B144, F9
Copan Italia Spa: Employee / Owner

B

Bandy, Tabitha – W24
BODE Technology: Employee / Owner
Bartock, Sarah – L61, L63
Quest Diagnostics: Employee / Owner
Bassman, Jonathon – L58
Cayman Chemical: Employee / Owner
Berkland, Haley – B166
Restek Corporation: Employee / Owner
Bernet, William – J11
Charles C Thomas, Publishers: Royalties
Beyerl, Zack – B137
Bode Technology: Employee / Owner
Bracamontes, Jennifer – B138, B202, G22
Cybergenetics: Employee / Owner
Burkhart, Jared – L15
Restek Corporation: Employee / Owner
Restek Corporation: Non-Mutual funds Stock Ownership/
Stock Options

C

Campbell, William – L29
Phase Analytical Technology: Employee / Owner
Carrillo, Kayli – B38
Thermo Fisher Scientific: Grant/Research Support
Casey, Brittany – Y43
NMS Labs: Employee / Owner
Chan-Hosokawa, Ayako – L51, L53
NMS Labs: Employee / Owner
Chaski, Carole – D28, D31, D33, W4
ALIAS Technology LLC: Employee / Owner
Collier, Jessi – L35
Restek Corporation: Employee / Owner

D

Danser, Kari – B202
Cybergenetics: Employee / Owner
Devesse, Laurence – B142, W11
QIAGEN: Employee / Owner
Dinova-Wimmer, Wendy – C26
Adobe Systems Federal/Adobe: Employee / Owner
Adobe: Employee / Owner
Dudek-Salisbury, Whitney – L35
Restek Corporation: Employee / Owner

E

Elifritz, Jamie – W8
Forensic Radiology Group: Employee / Owner
Epstein, Brandon – C24, DD3, S2, W4
Medex Forensics Inc.: Employee / Owner

F

Fassette, Timothy – L32
Thermo Fisher Scientific: Employee / Owner
Feldman, Andrew – B187
NexGen Forensic Sciences, Inc.: Employee / Owner
Fera, Vjola – J1
Institute of forensic medicine of albania: Grant/Research Support
Fikiet, Marisia – B210, B65, F25, K19, Y62
SupreMEtric: Consultant/Advisory Board
Fisher, David – F58
CRC Press: Royalties
Fontani, Marco – C28
Amped Software: Employee / Owner
Fuller, Debbie – B180
Refana Inc: Employee / Owner

G

Gregerson, Marc – L58
Cayman Chemical: Employee / Owner
Grgicak, Catherine – B199, B200
Rutgers University: Patent Holder/Royalties
Rutgers University: Patent Holder/Royalties
Grover, Justin – C3
The MITRE Corporation: Employee / Owner
Guido, Mark – C3
The MITRE Corporation: Employee / Owner

AUTHOR FINANCIAL DISCLOSURE

H

Hardman, Hope – Y36
Arrowhead Forensics: Our university received donated equipment

Hartman, Rebecca – L67
Elsevier: Honorarium for serving as section editor

Helmbrecht, Lukas – D5
Lumetallix B.V.: Employee / Owner

Herbick, Samantha – L15
Restek Corporation: Employee / Owner
Restek Corporation: Non-Mutual funds Stock Ownership/
Stock Options

Hessler, Meaghan – L68
NMS Labs: Employee / Owner

Huestis, Marilyn – L49, L51
American Kratom Association : Consultant/Advisory Board
American Kratom Association : travel expenses
DellaTerra Pharmaceuticals: Consultant/Advisory Board

I

Iula, Donna – L58
Cayman Chemical: Employee / Owner
Cayman Chemical: Employee / Owner

J

Jackson, Glen – B148, B164, B219, B228, F31
John Wiley & Sons, Inc.: Consultant/Advisory Board

Jerian, Martino – C28
Amped Software: Employee / Owner

K

Kharal, Ashfaq – CB8
HAWK Forensic Research AND Awareness Society: Employee /
Owner

Kacinko, Sherri – L46, L68
NMS Labs: Employee / Owner

Kasher, Shayna – L14
NMS Labs: Employee / Owner

Khandaker, Ethan – L29
Advanced Materials Technology: An employee of this company is
on my advisory committee; they have provided HPLC columns for my
research
Phase Analytical Technology: An owner of this company is my primary
investigator; they have provided several HPLC columns for my
research.

Koss, Abigail – F24
Tofwerk USA: Employee / Owner

Kotkin, Melissa – B142
QIAGEN: Employee / Owner

Krane, Dan – G15, G23
Forensic Bioinformatic Services: Employee / Owner

Kunkler, Kimberly – Y36
Arrowhead Forensics: Our university received donated equipment.

L

Layle, Nathan – L58
Cayman Chemical: Employee / Owner

Leary, Pauline – B179, B180, F25, K19
Noble: Employee / Owner

Lee, Jinhee – LS1
Crime Lab Design: Employee / Owner

Legler, Matthew – B138, B202
Cybergenetics: Employee / Owner

Lin, Jeffrey – B187
NexGen Forensic Science, Inc.: Employee / Owner

Lokits, Kirk – B156
Agilent Technologies: Employee / Owner

Lord, Kevin – W11
DNA Labs International: Employee / Owner
Intermountain Forensics: Employee / Owner
Saber Investigations: Employee / Owner

Lun, Desmond – B199, B200
Rutgers University: Patent Holder/Royalties
SoftGenetics, LLC: Patent Holder/Royalties

Lyons, Bertram – C24
Medex Forensics: Employee / Owner

M

Marinetti, Laureen – L17, L43
Axis Forensic Toxicology: Employee / Owner

Mazuchowski, Edward – W8
HNL Lab Medicine: Employee / Owner

McCord, Bruce – B135, B192, B196
QIAGEN: Grant/Research Support

Mealy, Jamia – B195
Bode Technology: Employee / Owner

Meli, Theresa – L61, L63
Quest Diagnostics: Employee / Owner

Mohr, Ken – LS1
Crime Lab Design: Employee / Owner

Morgan, Scott – LS1
Crime Lab Design: Employee / Owner

N

Naughton, Kristen – B195
Bode Technology: Employee / Owner

Neifeld, Jillian – L61, L63
Quest Diagnostics: Employee / Owner

Noorduyn, Wim – D5
Lumetallix B.V.: Grant/Research Support

O

Odom, Nicole – C27, C6
Medex Forensics: Employee / Owner

Oefelein, Rachel – W11
DNA Labs International: Employee / Owner

Ogbanga, Nengi – I45, Y3
COPAN DIAGNOSTICS: Grant/Research Support

Olckers, Antonel – W13
DNAbiotec: Employee / Owner

AUTHOR FINANCIAL DISCLOSURE

Olrogg, Sadie – B168
Center for Advanced Research in Forensic Science: Grant/Research Support

P

Palenik, Christopher – I64
Microtrace LLC: Employee / Owner
Perlin, Jonathan – B138
Cybergenetics: Employee / Owner
Perlin, Mark – B138, B202, G22
Cybergenetics: Employee / Owner
Cybergenetics: Patent Holder/Royalties
Pope, Katharine – A99, W16
Forensics Found: Employee / Owner

R

Radgen-Morvant, Isabelle – B180
NIRLAB: Employee / Owner
Rosenblatt, Itai – H8
Bright Forensic Innovations: Employee / Owner
Rosenblum, Michael – F59
Evolution Trial Design, Inc: Employee / Owner
Rosso, Michele – B144, F9
Copan Italia Spa: Employee / Owner
Rutherford, Jeff – C8
Magnet Forensics: Employee / Owner

S

Sawyer, Blake – C28
Amped Software: Employee / Owner
Scanlan, Timothy – F82
Forensic Analysis, Consulting, and Training : Employee / Owner
Schlieper, Maik – B32
SERATEC Gesellschaft für Biotechnologie mbH: Employee / Owner
Sciarretta, Marybeth – W11
DNA Labs International: Employee / Owner
Speck, Patricia – W13
MyEcoHealth: Consultant/Advisory Board
Sriram, Trupti – B195
Bode Technology: Employee / Owner
Stadler, Christian – B80
SERATEC GmbH: Employee / Owner
Subhashini, Nidhi – B76, F21
SERATEC GmbH: Employee / Owner
Sukta, Andre – L39
USDTL: Employee / Owner

V

Van Buren, Mandi – W11
DNA Labs International: Employee / Owner

W

Williams, Jeffrey – L58
Cayman Chemical: Employee / Owner
Williams, Karl – L49
American Kratom Association: Consultant/Advisory Board

KEY WORD INDEX

Δ8-THC - L19
Δ9-THC Isomers - D24
(hu)MANid - A16
.45 caliber revolver - B18
2,6-dimethylphenylisothiocyanate - D8
3,4-methylenedioxy-α-pyrrolidinohexano
phenone; MDPHP; fatal intoxication - L38
3-chloropropylisothiocyanate - D8
3D Models - A130
3D Printing - B15
3D Technology - A8, A9, A13, A33, A53,
A57, A66, A69, A102, A103, A145, A150,
B52, B58, B107, B108, B226, D25, F51,
I14, Y1, Y14, Y60
3D Models - F8
3D Reconstruction - I57

A

AAFS - F81
ADHD - J6
AI - A120
AI Risks - F37
ATLAS.ti - Y10
ATR FTIR Spectroscopy - Y79
Ablation Procedure - I17
Absorption - B26, B168, L3
Accelerants - F30
Accident - B119, D12, F73, I23, I100
Accreditation - B127, B167, DD5, F43, F82
Accuracy - A5, B61, B109, B131, C30, D31,
F19, F59, H6, W12
Activated Charcoal - B53
Activity Level - A109, A110, B186, B190,
G13, G14, W14
Acute Mechanical Asphyxia - I25
Admissibility - DD3, G22, G27, I41
Adulterants - B223, L14, L39, L46, Y72
Adverse Childhood Experience - J28
Age & Sex - A50
Age Estimation - A4, A5, A6, A7, A8, A9,
A49, A56, A131, A132, A134, B21, B155,
H17, Y7
Age Estimation in the Living - A133
Age Progression - A32
Age-at-Death - A1, Y70
Age-at-Death Estimation - A2
Agitation - J15
Air Filtration - Y76
Aircraft Crash - A74
Ajnala Skeletal Remains - H7
Alcohol - J9, L36, L65, L66
Alcohol Calculations - W10
Algorithm Comparison - B110
Algorithmic Bias - B136
Algorithmic Fairness - B125, Y35

Algorithms - W18, Y32
Alternative Light Sources - A96
Analog - B151, B157, B158
Analytical Chemistry - B95
Anatomical Variants - A34
Anatomical method - A22
Ancestral - B3, B115
Ancestral Remains - B117
Ancestry Estimation - A15
Anchorage - D15
Ancient DNA Analysis - LW2
Android™ - C7, C10
Animal - I6
Animal Abuse - B29
Animal Remains - Y38
Animal Fibers - Y65
Antemortem - A106, A108, W1
Anthropology - A7, A8, A9, A12, A15, A17,
A18, A23, A29, A41, A42, A45, A46, A54,
A55, A57, A58, A63, A72, A74, A76, A78,
A87, A98, A103, A105, A108, A120, A122,
A135, A136, A138, A140, A144, A145,
A149, A150, F6, H14, I74, W1, Y37
Anti-Doping Forensics - L11
Anxiety - Y68
Aortic Dissection - L5
Aortic Rupture - I10
App - C10
Application - G26
Approximate Matching - C14
Aquaporin - I78
Archaeology - A63, Y21
Arrhythmia - I25
Arson - B219, F10, F31
Arthur Conan Doyle - LW1
Articulation - A37
Artificial Intelligence - A30, A52, A54, A55,
A57, A58, A68, A144, B9, B20, B47, B147,
C16, C27, C28, C30, C31, C33, DD3, D22,
D30, D31, D32, E9, F33, F34, F36, F37,
F39, F40, G1, G21, G24, G25, G26, H8, I59,
J2, J13, J34, L8, W4, W15, W26, Y21
Artificial Intelligence Bias - I116
Arylcyclohexylamines - Y39
ASB - A137, F79, F81, L40
Asphyxiation - F70, J1
Assault Scenario - Y46
Asthma - I87
Asylum - F39
Asylum Seekers - J29
Athletes - I31
Atrial fibrillation - I17
Attorneys - K22, W7
Attribution - B10
Audio Analysis - D26
Augmented Reality - F58
Authorship Analysis - D32

Autofluorescence - B13
Automated - K8
Automated Algorithms - C21
Automation - B38, K24, L31
Autophagy - I104
Autopsy - F72, I11, I13, I18, I21, I23, I28,
I32, I34, I56, I58, I63, I76, I77, I86, I88,
I91, I96, I100, I103, I105, I117, J1, J3, Y51,
Y69
Autopsy Medicine - I93
Autopsy techniques - I73
Awareness - C4

B

BDNF - I75
BERT - F32
BLOOD - L37
Backlogs - B6, B30, B41, B72, B144, B194,
F9
Bacteroides - B135
Ballistics - B58, B66, B111, F51, F93
Baltimore - F67
Base of Skull Parameters - A21
Bathtub - D18
Bayesian Statistics - A133
Bayesian Network - B186
Behavioral Science - C33, E6, LW3
Benzodiazepines - Y41
Best Practices - A85, L67
Bias - A147, CB1, C4, E14, W27
Biometric Review - H9
Biocultural Theory - A46
Biological Profile - A6, A24, A128
Biological Distance - A126
Biological Evidence - B69
Biological Profile - A129, A143
Biological Profile Estimation - A16
Biomarkers - B187, I107, L3
Biosecurity - Y2
Biotope - B17
Bipartite Surface - A37
Blood Alcohol Concentration - L6, L7, L32,
L35, L67
Blood Screening - L36
Blood-Borne Infection - I76
Bloodstains - D3, I55
Blow Flies - I49
Blow Fly - I51
Blow Fly Larvae - Y5
Blowfly Developmental Stage - I7
Blunt Force - A112, A115
Bodily Fluid - B29, B32, B36, B43, B72, B76,
F6, F23
Body Weight Prediction - B79
Body Fluid Analysis - B192

KEY WORD INDEX

Bone - A7, A43, A49, A87, B116, Y7, Y13
Bone Remodeling - A1
Bone Marrow - Y51
Bongkreic Acid - L22
Borderline Personality Disorder - J17
Botany - I24
Brady - G16
Brass Ammunition - Y59
Brazilian Federal Police - B185
Breathwork - DD4
Bruising - E8
Buccal Swab - B144, F9
Built Environment - I1
Bullet - B112
Burial - A64
Burn - I71
Burned Bone - A91

C

CCTV - F83
CDI - A44
CODIS - E3, Y28
CODiS - F97
COVID-19 - B19, G3
CPR - I95
CSAM Investigations - C35
CSI Effect - J32
CT Scan - I58
Cable Tie - I38
Cadaver - I42
Cadaver Dog - A76, F18, G32, W12
Calculations - L66
Calliphora vicina - I43
Camera - F104
Canada - A79
Canine Detection - F25
Canine Training Aids - B101
Canine Mauling - I50
Canines - B29, B104, F89, F90
Cannabinoids - B8, B148, B169, B172, B181, B224, F4, L20, L26, L58, Y45, Y57, Y62
Cannabis - B225, B226, K19
Carbon Monoxide - I22
Cardiac - I11
Cardiac Death - I65, I89, I109, J1
Cardiac Genetics - I93
Cardiac Surgery - I16, I17
Cardiac Tamponade - I10
Cardiomyopathy - I67
Career - I81
Career Pathways - Y47
Carjacking - Y33
Cartridge Casings - B37, B202, Y24
Case Archival - A19

Casework - A39, A143, B6, B132, D1, F44, F98, F99, I8, K26, L28, W16, Y19
Cause of Death - F85, I32, I96, L49
Cell Identification - B39
Central Nervous System Trauma - W17
Central Venous Catheter - D23
Certification - C20
Chain of Evidence - CB8, H2, Y49
Channelopathy - I67
Characteristics - A64
Charred Body - I71
Chemical Analysis - F1
Chemical Damage - B114
Chemical Maceration - A43
Chemical Profiling - B91
Chemical Products - F10
Chemical Sensor - B27
Chemistry - A44, K18, K21, K25
Chemometrics - B91, Y17
Child Abuse - E17, E17, F2, F73, F109, G25, W1
China - A136
Chirality - L27
Chocolate - B227
Choking - F71, I34
Christal Violet - K14
Chromatography - B129, B157, B173, D4, F15, F29, L3, L7, L9, L15, L16, L32, Y11
Cigarette paper - B23
Civil Damages - J8
Civil War - LW5
Civil Claim - H1
Civil Rights - J12
Clandestine - A63
Classification - B49
Clinical Forensic Medicine - J29
Clinical - L46
Clinical Risk Management - D22
Clonazepam - L37
Clustering - Y73
Cocaine - I21
Cocaine Abuse - L5
Code - C7
Cognitive - E14
Cognitive Biases - J18
Cold Case - A48, B88, F47, F53, F99, F107, H2, K9, LW4, W3
Collaboration - B86
Color - A91
Color Test - B163, B169
Commingling - A72
Commodification - A142
Compact Bone Histomorphometry - A2
Companion Cases - I61
Comparison - K8, Y78
Competence to Stand Trial - J12
Complication - I80

Comprehensive Forensic Care - E18
Computational Linguistics - D33
Computed Tomography - A53, A69, A103, A110, A124, A127, A133, I14, W8
Conclusions - K28
Concrete - B141
Contamination - D6, W24
Contemporaneous - K10
Conviction - F75
Cooperation - G4
Coping Mechanisms - A99
Copyright Infringement - D33
Coronary Artery Anomalies - I93
Coroner - F80, F100, F105
Coroner - F38
Cortical Porosity - A59
Cosmetic - Y79
Cost - J30
Court - F67, G3, G15, J4, J7, K22, W21
Cranial Trauma - A119
Cranial Morphology - A126
Cranioetrics - A125, A127
Crash - D13
Creatinine - L69
Cremains - A86
Cremations - I99
Crime Gun Intelligence - F111
Crime Laboratory - B138, F42, F44, F45, F66, F82
Crime Laboratory Records - G9
Crime Prevention - CB8, J33
Crime Scene Investigation - B20, B66, B76, B147, B215, D5, F20, F29, F42, F54, F58, F62, F78, F85, I29, W5, Y1, Y12
Crime Scene Samples - B195
Crime Scene Scanning - F92
Criminal Behavior - J17, J37
Criminalistics - B20, B74, B76, B81, B89, B203, B208, B212, F111, K2, K18, K21, K23, K25, W19
Cross-Reactivity - L26
Cross-Contamination - B62
Cross-Reactivity - L20
Cuticular Hydrocarbons - I7
Cutoffs - L51
Cyber Forensics - C7, C14
Cyber Crime - C34
Cyber Treats - G2
Cybersecurity - G2

D

D-dimer - B80
DART-MS - B51
DFA - Y79
DFC - L68

KEY WORD INDEX

- DNA - A31, B7, B43, B80, B116, B143, B144, B145, B146, B190, B203, C16, DD6, F9, F13, F22, F55, G14, G15, G23, I4, I9, W5, Y13, Y19, Y33, Y38, Y74
- DNA Analysis - Y23
- DNA Methylation - A1
- DNA Mixture - B33
- DNA Preservation - A61
- DNA Quantification - B33
- DNA Quantitation - B31
- DNA Extraction - Y5
- DNA Metabarcoding - B2, B140
- DNA Quantification - B35
- DRE Training - L52
- DSP2 Method - A10
- DUID - L51, L56
- DarkWeb - C13
- Data - B112, B124, B139, CB3, C9, F101, G23
- Data Elements - F38
- Database - CB2, F97
- Database Systems - C17
- Daubert* - G24, G28
- De novo Mutation - I83
- Death - I68
- Death Investigation - B214, D1, F46, F63, F107, F108, F112, I40, I46, I56, W22
- Decision Making - J27
- Decomposition - A28, A78, A79, A80, A82, A83, A88, B17, F46, F50, F103, H15, I3, I4, I8, I44, I45, Y29, Y38, Y58
- Deep Learning - A134, C28
- Deepfakes - C28, C29
- Degradation - B75
- Degraded DNA - B40
- Demographic Data - A147
- Dengue - I98
- Dental Age - H16
- Dental DNA - H12
- Dental Identification - H2, H5, H13, H14, H15
- Dental Materials - A132
- Dental Remains - A95
- Dental Malpractice in Radiology - H1
- Dental Pulp Tissue - H11
- Depression - Y68
- Derivative Spectroscopy - B97
- Designer Benzodiazepines - L27
- Detection - B105
- Detector Dogs - B100, B101, B102
- Development - Y68
- Diagnosis - I19
- Dichloromethane - B28
- Dielectric Barrier Discharge Ionization - B94
- Differential DNA Extraction - B71
- Differential Extraction - B44, B73
- Digital Atlas - W23
- Digital Evidence - CB8, C1, C6, C8, C18, C23, C24, C33, E2, F6, G4, G25, K17
- Digital Forensic Examiner - C32
- Digital PCR - B135
- Digital and Multimedia Forensics - C22
- Digital Database - A138
- Digital Forensics - C4, C35, Y73
- Digital Investigations - C17
- Dimension Reduction - I54
- Direct Analysis in Real Time (DART®) - B158, B159, B229
- Direct PCR Amplification - B72
- Direct Sample Introduction (DSI) - B172
- Direct to DNA - B31, B41
- Disaster - A30, E4, I58
- Disaster Victim Identification - A61
- Disaster Victim Investigation - A26
- Disclosure - G16
- Discovery - G9
- Discrediting Handwriting Opinions - W25
- Discrimination - B210
- Discussion - K28
- Dismemberment - A92, A121, A135
- Distributions - I49
- Diversity - A98, E7, L51, Y29
- Document Analysis - K11, K13, K17, K27, Y49
- Document Examination - K16
- Documented Skeletal Collections - A147
- Dog - F79
- Dog Bites - H6
- Driving Under the Influence - B226, J9, L4, L54
- Drone - D17
- Drowning - B214, I5, I28, I78
- Drug - I70
- Drug Abuse - I68, L10, L15, L35, Y48
- Drug Analysis - B21, B89, B92, B93, B98, B159, B160, B167, B180, B182, B184, F15, F24, L9, L16, L29, L33, L43, L61, L63, Y72
- Drug Checking - B223
- Drug Chemistry - B178, Y42
- Drug Recognition Expert (DRE) - L52
- Drug Trends - L68
- Drug Toxicity - I61
- Drugs - L55
- Drugs of Abuse - B166
- Duquenois Test - B163
- Dyadic Deaths - I101
- E**
- E-Cigarettes - Y57, Y71
- E-Commerce - A142
- ELISA/HEIA - L26
- Edentulous - A16
- Edmond Locard - LW1
- Education - B122, B204, DD1, F57, F60, F61, F65, G14, H4, I81, W4, W15, Y6, Y55
- Ehr - J31
- Elder Abuse - A50, F108, J10, W23
- Elderly - I66, I68
- Electronic Health Record Technology - E1
- Electronic Storage Devices - F25
- Electronic Medical Records - J31
- Emerging Drugs - B96
- Emotional Intelligence - J28
- Empirical Testing - D20
- Endogenous Carbon Monoxide - L50
- Energy Dispersive Spectroscopy - Y59
- Engineer Consultancy - D23
- Engineering - D1, D9, D13, D28
- Enhanced Trauma Informed Policing - J28
- Entomology - B25, F13, F52, I8, I9, I44, I52, I53, Y5, Y81
- Entomotoxicology - I43, Y81
- Entrance Wounds - A117
- Environment - A81, A149, D10, F63
- Epidemiology - L10
- Epigenetics - B77
- Error - C1, W2
- Error Rate - A143, G7, G20, G22, I115, W26
- Ethanol - L6, L35, L54, Y71
- Ethanol-Glucuronidation - Y34
- Ethics - A150, B85, DD6, D9, F34, F78, J26, J31
- Ethnopsychiatry - J29
- European AI Act - F37
- Evaluation - G7
- Evidence - G27, G28, I113
- Evidence Evaluation - A122, C25, D28, G29, H6, W14, Y61
- Evidence Handling - B63
- Evidence Interpretation - B125, Y35
- Examination - E11, K13, Y53
- Examiner Accuracy - G7
- Excited Delirium - CB1, I25
- Excited Delirium Syndrome - J15
- Exclusionary Difference - B125, Y35
- Exome Sequencing - I109
- Experimental Research - A111
- Expert Testimony - DD3, F65, F114, G10, G13, G27, G28, K20, K22, L41, W10, W19, W21
- Expert Witness - CB1
- Explosion - B48, D7
- Explosive Detecting Canines - F91
- Extraction - B68, B70, B181, B201, F91, L25, Y52, Y80
- Extraction Solvents - B28

KEY WORD INDEX

F

FSPs Performance - B128
FTIR - B118
Fabric Damage - B213
Facial Features - F83
Facial Identification - A28, C19, C20, C21
Facial Recognition - C19
Facial Reconstruction - A66, A68
Factor Analysis - A125
Failure Analysis - D4
Fairness - B136, G16
Fake - K19
Fall From Height - F113, I16
Falls - D22
Families - B139
Fatal intoxication - L38
Femicide - E15, J2, J3, J7
Fentanyl - B10, B90, B91, B92, B158, L24, L53, L60, L61, L62
Fentanyl Analogs - B150
Fentanyl Detection - B101
Fentanyl Precursors - B102
Fibers - B64, Y56
Field Deployable - B149, F24
File Format Forensics - C27
Fingerprint - B61, B128, B133, B152, B162
Fingerprint Identification - B61, B88, B131, F46, F48, F75
Fingerprint Residue - B129
Fingerprint Distortion - F48
Fingerprint Examination - F48
Fire - A62, F88, I35
Fire Debris Analysis - B47, B217, F29, F31, Y17, Y36, Y44, Y80
Fire Investigation - F27, F30, F94
Fire Propagation Apparatus - D2
Fire-Death scenario - A151
Firearm Examination - B56
Firearms - B52, B58, B106, B108, B109, B111, F17, G20, I39, Y24, Y50
Firearms Toolmark Comparison - G19
Firework Injuries - F14
Fireworks - F14
Fitness for Duty Evaluation - F41
Flies - F30
Floral Powder - B133
Florida Panhandle - I102
Flow Cytometry - B13, B39, I54
Flow Visualization - F89
Flunitrazepam - I43
Fluorescence - B34, B50, D5, F115
Fly Larvae - Y52
Food Poisoning - L22
Footwear Evidence - D27
Foreign Objects - I64

Forensic - F27, I29, L18
Forensic Accreditation - G30
Forensic Age Estimation - A2
Forensic Analysis - A32, A89, A53, A124, A126, B23, B24, B26, B43, B59, B60, B64, B78, B203, B214, B222, C10, C12, D13, E16, F35, F36, F72, F114, I106, L19, L32, W18, W20, Y12, Y20, Y31, Y49, Y54, Y82
Forensic Anthropology - A11, A27, A39, A47, A60, A97, A109, A113, A119, A130, A134, A148, Y14, Y15, Y47
Forensic Archaeology - A74, A100
Forensic Archival Methods - A138
Forensic Art - A68
Forensic Assessment - J12
Forensic Biometrics - A4, F19, G1, I72
Forensic Chemistry - B95
Forensic DNA - B1, B3, B5, B11, B30, B35, B37, B38, B67, B69, B70, B73, B81, B82, B83, B84, B85, B86, B88, B123, B139, B141, B142, B143, B188, B192, B193, B198, B200, CB6, E3, F16, F49, F53, F97, G13, W2, W11, W14, W24, Y27, Y46, Y52, Y53, Y64, Y75, Y76
Forensic DNA Analysis - Y40, Y42
Forensic DNA Phenotyping - B79
Forensic Engineering - D30
Forensic Entomology - F50, I49, I52, I55
Forensic Epidemiologist - I62
Forensic Fractography - A60
Forensic Genealogy - F95
Forensic Genetic Genealogy - CB5
Forensic Imaging - B109, C19, C23, D25, E13, I14, W8, Y7, Y50
Forensic Intelligence - C14, F111
Forensic Investigation - B193, CB3, C8, E8, E17, F69, F87, J3, J20, L6, Y25, Y60, Y67
Forensic Investigative Genetic Genealogy - DD6
Forensic Library - B60
Forensic Lubricants - B28
Forensic Medicine - I69
Forensic Medicine Education - I111
Forensic Metrology - D29
Forensic Microbiome - CB7
Forensic Nursing - E2, E4, E6, E10, E11, E12, E13, E16, E18
Forensic Nursing Documentation - E1
Forensic Nursing Education - E9
Forensic Odontology - H3, H4, H5, H7, H8, H9, H10, H13, H17
Forensic Pathology - F8, I5, I13, I91, W8, W17
Forensic Pipeline - C3
Forensic Practices - F87
Forensic Professionals - DD1, F72, F114, I81

Forensic Psychiatry - F36, F70, J7, J10, J13, J14, J16, J18, J20, J24, J25, J26, J27, J30, LW3, W7, Y6
Forensic Reconstruction - F64, F84
Forensic Science - B24, B34, B52, B117, B173, CB4, C8, C23, DD4, D26, F32, F34, F60, F103, F110, G5, G6, G8, G11, G12, G17, G18, G21, G31, I24, I31, I35, I47, I73, I97, I115, J21, K11, W4, W15, W27, Y12, Y23, Y24
Forensic Significance - A45
Forensic Soil Analysis - B65
Forensic Taphonomy - F84
Forensic Training - A146
Forensic Toxicology - H10, I67, L5, L22, L44, Y63
Forensics - C9, I50
Forgotten Baby Syndrome - J22
Fracture Behavior - A59
Fracture Type - A59
Fragmentation - Y28
Fragments - H15
Francisco Pizarro - Y14
Fraud - B152, J10
Freshwater - A82
Front of Skull Parameters - A21

G

GC-MS - B154, B218, B230, I7, Y4, Y17, Y44, Y45
GC/MS - B47, D2
GCMS - B51
GDNF - I75
GHB-Glucuronidation - Y34
GSR - D5
GSR Prevalence - B63
GSW - I11
Gabapentin - L28, L56
Game - E4
Garmin® Flexible and Interoperable Data Transfer (FIT) Protocol Files - C11
Gas Chromatography - B55, B105
Gas Chromatography-Mass Spectrometry (GC-MS) - B172
Gas Chromatography-Vacuum Ultraviolet Spectroscopy - B97
Gasoline - B219, F31, I35, Y80
Gender - A13, A107, F76, Y10
Gender-Based violence - E15
Genealogy - A70, A71, B85, B86, B87, F96, W5
General Self-Efficacy Belief - J23
Generalist - B122, F47
Generative AI - D34

KEY WORD INDEX

Generative Artificial Intelligence - I116
Genetic Ancestry - B117
Genetics - A70, A71, B12, B77, B87, B143,
F99, I79, I109, Y77
Genturi CollectEject™ Swab - Y28
Geographical - Y3
Geographical Location - Y18
Geologic Materials - B2
Geometric Morphometrics - A67
Geospatial Analysis - Y9
Geospatial Mapping - A48
Ghost Guns - B15
Glass - B22, B211, Y61
Glock Switch - B56
Gold - D10
Golf - I102
Gorham-Stout Syndrome - I59
Gout - I80
Grants - F45
Green Chemistry - B183
Gross Negligence - H1
Guidelines - L51
Gummies - B181
Gun Shot Residue - B45, B55, B59, B66,
B111, B217, B220, B221, F17, Y50
Gunshot Residue (GSR) - B63
Gunshot Trauma - A117, Y82

H

HPLC - K14
HPTLC - L37
Hair - B134, L25, L30, L39
Hair Shaft - B40
Hallucinogens - B182
Handguns - F11, F28, I99
Handwriting - K1, K4, K6, K8, K10, K12, K15,
K17
Hazardous - F10
Head Trauma - I39
Head Poses - C21
Headspace Analysis - B103
Headspace Gas Chromatography - L36
Heart - I40
Heart Rupture - I16
Heat - Y65
Heat Stroke - I12
Heat-Related Illness - I12
Heavy Metals - Y62
Hemophilia A - I83
Hemorrhagic Shock - F113
Hemorrhagic Shock - D23
Hemp - B153, B161, B224
Hepatic Laceration - I26
Heroin - I42

Herpes - I84
Hidden Crimes - I114
Hidden Intoxication - F2
High Blood Concentration - L53
High Resolution - L34
High-Resolution Mass Spectrometry
(HRMS) - L11
High-Resolution X-ray Computed
Tomography - A109
High Speed Imaging - F93
Histochemical - I26
Histological - F14, I78, I88, I106, Y13
Histomorphological Changes of Dental
Pulp - H12
Historical - Y23
History - F75
Homicide - F53, I30, I72, J5
Honey Bees - Y2
Hospitalization - Y6
HSP - I21
Human Factors - B130, G10, W2
Human Identification - A75, A107, B114,
Y40
Human Remains - A40, A71, A76, A89,
B103, B115, B141, F18, Y76
Human Rights - A26, A140, E7, E12, F39,
G4, I113
Human Skeletal Remains - A96
Human Variation - A14, A123
Human Decomposition - B216
Human Identification - F95
Human Remains Sales - A142
Human Scent - B16
Hydrogen - B153
Hydrogen Sulfide - I19, I37
Hydroxychloroquine - L47
Hyperthermia - I103
Hypoplastic Coronary Artery Disease - I85
Hypothermia - I27

I

Identification - A23, A25, A27, A41, A42,
A62, A66, A69, A73, A84, A86, A108, B5,
B113, F21, F107, I4, I72, I74
Ignitable Liquids - B51, B218
Ignition - F28
Illicit Drug Identification - Y31
Illicit Drugs - B179
Image Comparisons - C22
Imagery - C26
Imaging - B155, B215, D6
Immigration - J25
Immunoassay - L20, L21
Immunohistochemical - I26

Impaired Driving - J6, L56
Implementation - S1
Imputability - J37
In Vitro - L59
In-Custody Death - J20, L18
Incident Recovery - C3
Inclusion - A98
Inconclusive - G20
Indigenous - E10
Infant - I86
Infant Death - I82, Y55
Influenza - I85
Informatics - K23
Injury - D18
Injury Biomechanics - D19
Injury Mechanisms - D19
Injustice - LW4
Ink Analysis - K27, Y25
Ink Line - K5
Inorganic - B59
Insanity - J26
Insect Artifacts - I55
Interdisciplinary Work - J38
Inter-Device Error - A36
Inter-Rater Reliability - J18
Interagency Cooperation - F49
Interdisciplinary - F3, J35, Y42
Interdisciplinary Learning - I111
Interdisciplinary work - J38
Interindividual Sexual Trait Expression - A14
Interlaboratory Comparison - B128
Interlaboratory Study - B154
Internal Limiting Membrane - I94
International - A100, I112, S1
Interobserver - A118
Interpretation - B108, B189, B221, G29
Interrogation - Y8
Intervention Strategies - I33
Interview - B204
Intimate Partner Violence - E15
Intoxication - I70, J21, L48
Intra- and Inter-Observer Reliability - A67
Intra-Observer Error - A36
Intrafamilial crimes - I101
Investigation - C13
Investigative Genetics - B199
Investigative genetic genealogy - A101
IRIS - A19
ISFG minimum range - B4
Isobutane Hash Oil - B185
Isomers - Y32
Istanbul Convention - E18

KEY WORD INDEX

J

Job - B204
Job Satisfaction - J23
Joint Outline - A37
Joseph Bell - LW1
Judicial - D9, G32, L41
Judicial Autopsy - I114
Junk Science - J11
Jurors - J8
Justice - B188, F69
Juvenile - A33, A35

K

Kerf - A92
Key-Value Stores - C2
Kratom - B165
Kumho - D28

L

Lab-on-a-Disc - B71
Laboratory - D4, F57, L57
Laboratory Strategy - A75
LAMP (Loop-mediated isothermal amplification) - Y66
Lange's Folds - I94
Language - W19, Y10
Laser - L30
Laser Sheet Scattering - B220
Latent Prints - B126, B127, B130, B132, B133, B147, B155, B162, Y36
Law - L41, W7
Law Enforcement - B195, C20, F19, F69
Lay Control Groups - G19
LC-MS - L60, Y45
LC-MS/MS - L14
LC/MS/MS - Y63
LC3-II - I104
LCMS - L27
Lead - L1
Leather - D3
Legacy Data - B189
Legal - L66
Legal System - F110
LIBS - A90
LiDAR - F8, Y1
Lightning - I63
Likelihood Ratio - B136, B186, Y61
Lima Beans - Y74
Linguistics - D32, D34
Lipid Profiling - F22

Liquid Chromatography - B166, B171, B183, B224, L29, L31, L65, Y41
Lithium-Ion - F88
Load Marks - D14
Load cell - D20
Long Bones - A20, A117
Low DNA - B36, B187, B198, B201, Y22, Y30, Y75
Low Energy Ionization - B156
Lower Limb Pain - I36
LSD - L31
Lubricants - Y26
Lucilia Mexicana - I53
Lung Float - I92

M

Machine Learning - A52, A54, A56, A58, A80, A120, A129, A144, A145, B23, B64, B98, B121, B215, D26, F23, F26, F35, G10, G24, W18, W20, Y3, Y18, Y21, Y70
Machine Learning Assisted Age Estimation - H16
Macromorphoscopic Traits - A123, A125
Male DNA - B44
Malingering - J8
Malpractice - I77
Maltreatment - F109
Mandibular Radiographic Parameters - H9
Manner of Death - F108, I90
Marijuana - B153, B161
Mass Casualty Event - F49
Mass Disaster - B207, F106, H3, H8, Y64
Mass Disaster Response - A146
Mass Fatality - A75, CB2, F106
Mass Graves - I45
Mass Spectrometry - B57, B90, B93, B99, B120, B134, B148, B149, B150, B156, B170, B182, B219, F1, F24, L29, L58, Y11, Y32, Y57
Massacres - A40, A140
Maternal Mortality - I90
Maxillary Sinus - A67
May Thurner Syndrome - I36
MDI - L46
Measurement uncertainty - B123, L44
Medetomidine - B223
Media - J32
Media Dissemination - F87
Medical Care Accessibility - J36
Medical Examiner - F38, F80, F96, F105, I56, I60, I110, I117
Medical Examiner and Coroner - F102
Medical Faculty Curriculum Türkiye - I111
Medical Liability - J4
Medical Malpractice - I116
Medicolegal Death Investigation - F38, F80, F88, F100, F101, F102, F104, F105, H13, I1, I110, I115, I117
Medicolegal Significance - A38
Memory - J5, J16
Mental Health - DD4
Mental Health Diversion - J17
Mental Health Support - C32
Metabolism - L58, L59
Metabolite - I46, L60, Y43
Metabolomics - I107, Y4
Metallic Staining - A90
Metals - B10, L33
Methadone - L48
Method Agreement - A112
Method Development - A52, B54, B84, B166, B171, B230, F4, I48, L25, Y20, Y41, Y43
Method Validation - A5, A128, A131, G19
Methodology - A113
Methods - A18
Methylation - Y70
Metrics - B145
Micro-CT Imaging - F92
Microanalysis - I64
Microbial - B196, I44, Y77
Microbial Forensics - B192
Microbiology - CB7, F68, I82, Y2
Microfluidic Device - Y66
Microfluidics - B78, Y16
MicroRNA Analysis - B79
Microscopy - B46, B209, F115, I64, LW2, Y65
Migrants - A25, A26, A51, A106, I113
Military - W3
Mineral Identification - B65
Minerals - B209, D10
Minimally Invasive Autopsy - I73
Miscarriage of Justice - CB6
Misconceptions - G26
Missing Children - F84
Missing Persons - A29, A32, A51, A100, B83, J19, W16, Y9
Missing White Woman Syndrome - J19
Mitigation - C1
Mitochondrial DNA - B115, B135, B137, I3
Mitragyna Diversifolia - B165
Mitragyna Hirsuta - B165
Mixture Analysis - B137, B188, B191, B202
Mixture of Pollen Grains - I54
MNI - CB2
Mobile Device - B45, C6, C9, C12, C18
Mobile Forensics - C5

KEY WORD INDEX

Mock Trial - W21
Modeling - A29, B164
Modified Firearms - B56
Mold - A121
Molecular Imprinting - B27
Molecular Testing - F16
Morbidity - I80
MorphoPASSE - A11
Morphological Analysis - F83
Morphology - B140, F13
Morphopasse - A12
Mortality - I102
Motor Vehicle - I22
Motorcycle - I23
Movie Set – B18
MPS - B201
Multidisciplinary - A101, CB4, F100, I71, I112, W12
Multifaceted Approach - H7
Multimedia - C25, C26, C27, C29
Multimedia Forensic Examiner - C32
Multispectral imaging - K16
Mummification - A77
Munsell Soil Color Analysis - Y78
Murder - A102, CB6, F71, F86, I99, J24
Muscle - L2
Mushroom - B227
Muzzle Flash - F28
Myocardial Interstitial Fibrosis - I103
Myocarditis - I98

N

NanoLCMS - B170
Nanozymes - Y16
National Security – G2
NCRB - I33
N-ethylpentadone - L64
Neck Injury - I65
Necrobiome - CB7, F12
Neglect - F109
Neonatal - I84
Neural Network - B87
Neuroimaging - J37
Neuropathology - W17
New Psychoactive Substances - B60
Next Generation Sequencing - B1, B77, B137, B142, B187, I3, W11, Y22
NFPA 921 - F94
NGS - B4
Nicotine – Y71
NIST - B120, F33, G5, G6, G8, G11, G12, G17, G18, G31, W6
Nitazenes - B95, B178, L17, L59
Nitrate - I18
NoSQL database forensics - C2

Non-Detonable explosive training aid - F90
Non-Human DNA - B2
Non-Routine Analyses - L44
Nonhuman Analogues - A148
Nonhuman Remains - A38, A39
Normalization Factor - L69
Novel Psychoactive Substances - B24, B148, B156, B164, B228, J33, L57, L63, W22, Y39
Novel Synthetic Opioids - B151, B157, L21, Y48
Novel Training Aids - B102
NPS - L17, L23, L64
Nucleic Acid Extraction - B36
Nutrient Foramen - A24
Nutritional Supplements - L11

O

Occupational Incidents - I19, L1
Ocean - B113
Odor - D7
Odor Signature - F25
Offensive Security - C13
Omics - I41, I45
On-Site Detection – Y16
Onboard Camera - D12
One Way Transfer - C3
Online Sexual Grooming - C34
Operationalize - E1
Opioid Crisis - L12
Opioids - Y48, Y72
Oral Fluid - L15, L34, L52, L69
Oral Health - A47
Oral Microbiota - F68, Y3
Oral Swabs – E5
OSAC - A137, B124, F81, L40
OSAC & ASB - K7
OSAC Proposed Standard - C22
Osteoclast - A65
Osteogenesis Imperfecta - A116
Osteometry - A36
Outdoor Crime Scenes - F54
Outsourcing - B6
Overdose - B92, I66, L24, L49
Overkill - I29
Overkilling - I30
Oviposition - I51

P

Paediatric - L70
Pain - E11
Paint - B212
Palynology - F22
Paper - B152

Parachuting Accidents - B14
Paradoxical Undressing - I27
Parapet - D15
Parasites - Y22
Parental Alienation - J11
Passive Headspace Extraction – Y44
PCRS - B210
Pediatric - I70, I82, I87, I88, I92, I96, I97, L48
Pediatric Emergency - F73
Peer Review - J11
Peer-to-Peer Grooming - C34
Pelvis' fractures - B14
Pen Inks - K14
Penetrating Atherosclerotic Ulcer - I10
Penetrating Traumatic Brain Injury - I57
Pennsylvania - Y58
Perjury - J5
Permeability - B62
Personal Identification - A31, A72, B197
Personnel Safety - F56
Pesticide - L42
Pharmacokinetics – L45
PHD ETDC - F64
Phoenix Canal Murders - CB5
Photo Analysis - LW5
Photogrammetry - A64, A119, D16, D17
Photography - E2, F104, H5, H14, K9, K20
Phytocannabinoids - D24
Pig Decomposition - Y15
Pigs - Y58
Pipeline - B84
Placental and Perinatal Pathology - I91
Plagiarism - D31, D33
Plant - B11, B12
Plastic Explosives – B53
PMI - A44, A104, I48, Y4
PMMA - D2
Point-of-Care Test - I76
Point-of-Need - F21
Poisoning - F74
Police - J23
Police Casework - F92
Police and Forensic Psychology - E6, F41
Policy - C31
Pollen - B140
Polydrug - L12
Polysubstance Use - L62
Population - A17, A18, B3
Population Affinity - A123, A124
Population Frequency - A34
Portable Chemical Sensing Instrument - B27
Portable Optical Devices - B19
Positional Isomers - B96
Positive Identification - A55
Post Traumatic Stress Disorder - J14

KEY WORD INDEX

Postmortem - I62, L17, L43, L47, L64, L65, L70, W22, Y39, Y43
Postmortem Alcohol Concentration - L2
Postmortem Blood - B80
Postmortem Computed Tomography - A20
Postmortem Diagnosis - I5, I15
Postmortem Interval - A65, A80, A81, A82, A83, A114, H11, H12, I2, I9, I41, I42, I46, I47, Y51
Postmortem Microbiology - I108
Postmortem Predation - I50
Postcranial Skeleton - A46
Postmortem Toxicology - L50, L55
Predation - I6
Predictive Policing - F5
Pregnancy - I89, I90
Pregnant Inmates - J36
Presumptive Blood Test - D3
Preteen - J35
Pretensioner - D14
Prevalence - L62
Prevention - Y55
Printing - K26
Privacy Laws - G1
Probabilistic Clustering - B199
Probabilistic Genotyping - B82, B146, B189, B191, B200, B202, G22
Probability - B112, W9
Probability of Wrong Decision - D29
Procalcitonin - I108
Process Maps - F94
Professional Development - S2, Y47
Professional Responsibility - B126, F61
Proficiency Testing - B138, F62
Programs and Training - F110
Projectile Trauma - A118
Prop Gun - B18
Propane - D7
Protein Degradation - I2
Proteins - I48
Proteomics - B75, B134, F98
Protocol Verification - B191
Provenance - A84
PSA - B32
Psilocin - B227
Psychoactive Substances - I20
Psychological Behavior - C6, J6, J9, J27, J33, J34
Psychological Profiles - Y8
Psychology of Testimony - J38
Puberty - A35
Public Defense - F5
Public Opinion - A141, J32, Y27
Pull Force - D20
Pyrolysis - Y26
Python - B211

Q

QIAxcel - B35
qPCR - B33
Quality - G30
Quality Assurance - A97, B100, B127, B205, F3, F44, F57, F82, L7
Quality Control - DD5, W24
Quality Management System - F43
Quantitation - B70, B175, Y74
Quantitative Evidence - B107, Y11
Questioned Documents - K1, K2, K3, K5, K7, K9, K10, K12, K13, K15, K18, K19, K20, K21, K23, K25, K26, K27, K28

R

Radicalization - J34
Radiocarbon Dating - A45
Radiological Reconstruction - A116
Radiology - A4, A132, I74, I95
Railway - I24
Raman Microscopy - B48, B184
Raman Spectroscopy - B9, B21, B49, B50, B65, B179, B184, B210, F23, L42, Y25
Rapid DNA - B42, B145, B193, B194, B195, B207, F16, Y40
Rapid Drug Screening - B99, B159, B160
Rapid Gas Chromatography-Mass Spectrometry - B175
Rare Diseases - I59
Razor - D18
Reclined Occupants - D19
Reconstruction - C2, D17, F51, F86, F93
Recovered Memory - J16
Recovery - B68
Reference Locality - C15
Reference-Free Identification - B90
Regression Analysis - K12
Reliability - G30, W25, Y29
Remains - F85
Reporting - B74
Reproductive - Y69
Reproductive Justice - J36
Research - C30, C31, D30, F17, F45, F66, F103, K24, Y67
Residual Odor - F1
Resiliency - A99
Resolution - A110
Restraint - F70
Restraint-Related Deaths - J15
Retrograde Extrapolation - L67
Retrograde Extrapolation - W10
Retrospective Study - B7, I60
Rib Fractures - I95

Ricin - B12
Risk Assessment - F40, J13
River - I28
RNA Degradation - H11
Rock Squirrel - A94

S

Saliva - F68
Sampling - W6
Saw Marks - A92
Scanning Electron Microscopy - L42
Scavenging - A93, A94, I6, I51
Scene Investigation - B180, C12, F52, F63, I22, I52, I61, I63, W3
Schizophrenia - I34
Scientific Evidence - F59, K11
Scientific Method - W13
Scope Recommendations - L57
Scope Reduction - C15
Score Likelihood Ratios - B131, C25
Scores - B121
Screening Methods - F41, K1, L21
Search - A96
Search and Recovery - A51, A95, B103, B113, F106
Seasonality - A77
Seat Belt - D14
Seized Drug Analysis - B97, B149
Seized Drugs - B9, B11, B57, B94, B100, B154, B168, B171, B175, B180, B183, B222, B228, B229, B230, W6, Y31
Self Strangulation - I38
Semen - B68, B75
Semenogelin - B32
Semi-Synthetic Cannabinoids - L19
Sensor Dog - B104
Separation - D24
SEPSIS - I108
Sequence of intersecting lines - K16
Sequencing - B196, W11, Y77
Serial Killer - LW4
Serology - B67
SERS - B179
Sex Assessment - A12, A13, A15, A35, A128
Sex Estimation - A10, A11, A14, A24, A129, A130
Sexual Crimes - B42, B71, B81, B196, E3, E7, E13, E16, F35, F76, L16, Y53
Sexual Assault - E5, E14
Sharp Force - A121
Shiloh - LW5
Shotgun - F11
Signature Identification - B34, B93, W20
Simulated Arrests - B221
Simulation - D16

KEY WORD INDEX

- Single-Cell - B82, B200
Single-Cell Genetics - B199
Site Inspection - F113
Skeletal Damage - A65
Skeletal Fracture - W23
Skeletal Incompleteness - A19
Skeletal Remains - A90, A105, A115, A136, B114, B116, F27, F52, F55, Y37, Y78
Skeletal Trauma - A50, A148
Skeletal Age - H16
Skeletal Morphology - A38
Skull Fractures - A116
Skydiver - B14
SLC4A3 - I79
Sleep Activity Artifacts - C11
Smartwatch Forensics - C11
Smokeless Powders - B105
Social Justice - LW3, Y9
Social Media - A141, C24, Y67
Social Science Research - CB4
Social and Structural Determinants of Health - A47
Social Networking - C5
Social Networking Digital Artifacts - C35
Sodium Nitrite - F74
Sodiumazide - I69
Soft Tissue - A83
Software - A17, B142, C16, D27, F101, I106, K4, K6, K24, L8
Soil Analysis - A88, B22, B54, B209
Soil Microbial Community - F12
Soil Microbiome - F50
Soil Vapor - B216
Solid Copper Bullets - B110
Solid Phase Microextraction - B26, B168, G32
Source Tracing - B49
Southeastern U.S. - A104
Species Identification - B13
Species Determination - B25
Species-Specific Chemical Signatures - B25
Specimen - LW2, L43
Spectral Libraries - B120
Spectrophotometer - A91
Spectroscopy - A86, A87, B46, B54, B98, B173, F26, I47, L30
Sperm Cell Recovery - B73
SpermX - B44
Spermatozoa - B31
SPME - B16 Spermicides - Y26
Spine - A33
Spontaneous Splenic Rupture - I83
Stabbing - F112
Stability - B55, L23
Stable Isotope Analysis - A40, A42, A43, A84, A85, A101
Stable Isotopes - A41
Standard - F79
Standard Operating Procedures - A97
Standard Operating Procedures - F3
Standardization - K3
Standards - A137, B67, B106, B124, B126, B130, B206, B208, B217, B222, C18, C26, DD1, F40, F61, F78, H4, I110, K7, L40, S1, W25, Y36
Standards Development - F81
State Oversight - G9
Statistical Comparison - B150
Statistics - CB3, D27, G29, K4, K6, W9, W26, Y20, Y27, Y56
Stature - A23, A135
Stature Estimation - A21, A22
Stigma - J30
Stir Bar Sorptive Extraction - Y63
STR Profiles - B1, B38, B194, Y30
STRs - B4, B7, B40, B198, Y46
Strangulation - E8, Y75
Streamlining - B41
Streptococcus Pneumoniae & Bordetella Pertussis - Y66
Stress - A6
Structural Violence - A48, A104
Student Success - F60
Student Training - A85
Students - S2
Subadult - A131
Subadult Stature Estimation - A20
Substance Abuse - A49, I66, L9
Substances of Abuse - H10
Sudden Cardiac Death - I13, I31, I67, I79
Sudden Death - I12, I15, I65, I85, I89, I107, I112
Suicide - F11, F71, F74, I18, I33, I37, I38, I39, I40, I57, I69, I75, I97, J4, J21, J35
Surveillance - B178, F5, I62
Survey - B206
Swab - B69
SWGDRUG - B89
Sydney Declaration - B122, W13
Synthetic Cannabinoids - I20
Synthetic Marijuana - I20
Synthetic Cathinone - L38
Syrian Refugees - J22
Systemic Review - F43
- T**
- Taggants - B53
Takotsubo Syndrome - I15
Tandem Mass Spectrometry - B19, B151, B160, B161, B164, B228
Taphonomy - A77, A78, A79, A81, A89, A93, A94, A95, A114, A141, B5, F12, I1, Y15
Tattoo - F47
Tattoo Marks - A27
Technology - F67, LS1, W27
Technology Transition - A30, B132, B205, F33, F42, F66, G21
Technology Use - F102
Teens - B8
Teeth - H17, Y64
Temperature - A62, I2
Temperature Measurement - A151
Tencent QQ - C5
Terminal Burrowing - I27
Terminology - K3
Test Strips - B99
Testimony - B74
Tetrahydrocannabinol - B225, L4
Texas - I53
Textiles - B213
THC - L54
THC Concentrate - B185
Thermal Alteration - A60
Thermal Damage - A61
Thermocouple - A151
Thin Layer Chromatography - F4
Three-Dimensional Scanning - B110
Thrombosis - I36, I105
Time Reduction - C15
Time of Death - F112, Y69
Time-of-Flight Mass Spectrometry - B94
Time Since Deposition - B39
Tire Marks - B119
Tissue Analysis - I105
T-Lymphoblastic Lymphoma - I87
Tolerance - L53
Toner - K5
Tool Analysis - C17
Toolmarks - A149, B15, B106, B107
Topic Modeling - F32
Topical Skincare - Y62
Touch DNA - B197, F20
Touch Microbiome - B197
Touch Sample - B37, B57, Y59
Touch/Trace - B190
Toxicity - I32, L1, L10, L24, L33, L47, L49
Toxicological Analyses - L2
Toxicology - I37, L8, L12, L14, L18, L23, L28, L34, L68, L70, Y34, Y81
Trace - Y33
Trace Analysis - B22, B45, B46, B48, B119, B129, B162, B208, B211, B212, B213, 115, Y30, Y56
Trace Evidence - B118, B121
Traces - W13

KEY WORD INDEX

Traffic Accident - L4
Traffic Fatalities - L55
Training - B167, B206, F65
Training Aids - B62
Training Aid Containment - F89
Transcriptomics - B78
Transformation - LS1
Transgender - A107
Transnational disappearance - F95
Transparency - A56
Trauma - A73, A93, A106, A112, A114, A115, A122
Trauma Analysis - A111, A113, A118, Y82
Trauma Interpretation - A111
Traumatic Brain Injury - I104
Traumatic Death - I114
Traumatic Life Events - J14, J24
True Crime Podcasts - J19
Tumor - I86
Turkey - J22
Type 1 Borosilicate Vial - B50
Typewriters - K2
Typewriting - K15
Tyre Rubber - B118

U

UHPLC Separations - B96
Uncertainty - D29
Unexpected Death - I77, I98
Unidentified Persons - A25, A31, A70, A105, B83, B207, F55, F96, W16, Y37
Uniform approach - B123
Unknown - A73
Unsolved - A102
Unsupervised learning - Y73
Urine - L61
UV-Vis Spectroscopy - B163
UV-Vis spectroscopy - B169

V

Vaccine - G3
Validation - B104, B138, B146, B205, B218, B229, DD5, F59, G5, G6, G8, G11, G12, G17, G18, G23, G31, L39, L45, W9
Validity and Reliability - A10
Vape - B225
Vaping - B8
Vehicle Processing - F20
Vehicle Speed - D12
Veracity - D34
Vertebra - A22
Vertebrae - A34
Vicarious Trauma - A99

Victim Age Profile - Y54
Victim Identification - A28, B42, H3, I100
Victim-Offender Relationship - I101
Video Analysis - B220, C24, C29, D16, Y8
Violence Against Women - E10, F76, J2, J25, Y54
Violent Deaths - F54
Violent crime - I30
Virginity Testing - E12
Virtual Anthropology - A127
Virtual Reality - A146, D25, E9, F58, F62
Virus - I84
Visualization - D6, G15
Vitreoretinal Traction - I94
VOCs - B216
Volatile Organic Compounds - A88
Volatile organic compounds - F91
Volatiles - B16, B17, F18, F90

W

Warm Autoimmune Hemolytic Anemia - L50
Wastewater-Based Epidemiology - F15
Water Deaths - I60
Wildlife Forensics - F21, F98, Y19
Wind Loads - D15
Wood Identification - F26, Y18
Wrongful Conviction - F64, F86, I92

X

Xenobiotics Substances - F2
Xylazine - B170, D8, L45, L63

Y

YFSF - Y60
Young Professionals - S2
Youth Gangs - F56
Youth Violence - F56
Y-STR - CB5, E5
Y-Screening - B30

PRESENTING AUTHOR INDEX

The presenting author index can provide a quick reference to find when and in what section presenting authors are scheduled to present at the 2025 Annual Scientific Conference. The reference table below assists you in finding the section in which the presentation will be given. Letters correspond to the scientific discipline/section in which the presentation is being made while the number corresponds to the numerical sequence of the presentation within the section.

A	Anthropology	K	Questioned Documents
B	Criminalistics	L	Toxicology
C	Digital & Multimedia Sciences	LW	Last Word Society
D	Engineering & Applied Sciences	Y	YFSF Poster
E	Forensic Nursing Science	CB	Case Break Session
F	General	DD	Deep-Dive Session
G	Jurisprudence	LS	Luncheon Seminar
H	Odontology	S	Special Session
I	Pathology/Biology	W	Workshop
J	Psychiatry & Behavioral Science		

A

AAalbers, Sanne - B1
Abejide, Tolulope Bayode - F30
Acosta Arias, Bellaniry - J13
Adams, Bradley - W1
Adams, Chris - W3
Adams, Elise - A104
Adams, Nathaniel - G15, G23
Addison, Annie - I28
Adedayo, Oluwasola Mary - C17
Adefalu, Olufunlola - J13
Adelberg, Kendra - D5
Adeoye, Alexandra - B164
Adnan, Atif - F97
Adolphi, Natalie - W8
Adserias-Garriga, Joe - H17, S2
Agilar, Savanna - A108
Ahn, Yoo Min - I18
Ahrendsen, Jared - W17
Aichenbaum, Yaakov - J11
Akiyama, Cliff - F56
Alawi, Ali - L27
Albergoni, Marcello - G2
Alberink, Ivo - B123
Alberto Hiraldo, Ruben - I85
Alempijevic, Djordje - I112, I113
Alghafri, Rashed - B81
Ali-Gombe, Aisha - C7
Alipour Yengejeh, Amir - F32
Alkan, Nevzat - J22
Alladio, Eugenio - B215
Allan, William - B138
Allinson, Savanah - B226
Almanza, Ariana - Y66
Almela, Ángela - D34
Alvarez Wright, Amanda - H3, H13
Ambrosius, Teresa - S1
Amin, Mohamed - B21
Anderson, Alaina - F65
Anderson, Bruce - A70
Ang, Jason - Y1
Anna, Franzoni - B144, F9

Antonelli, Lillian - A148
Appel, Nicolette - A127
Appley, Meghan - B99
Aquila, Isabella - I24, I31, I35, I73, J21
Ariani, Chiara - F8, F70, I79
Arroyo, Valerie - Y47
Arunkumar, Ponni - W17
Aschheim, Kenneth - H4, H8
Ayas, Gökem - J24, J27

B

Baer, Erica - J8
Baiandurova, Anfisa - W17
Baker, Andrew - I117, W1
Baker, Savannah - L23
Baldari, Benedetta - I72
Ballinger, Kenzie - B184
Ballotari, Marco - L62
Bandy, Tabitha - W24
Banks, Petra - A115
Bansal, Yogender - I88
Barber, Jayda - B183
Barcus, Hannah - W16
Barisic-Jaman, Berislav - D12
Barnas, Jillian - CB4
Barron, Virginia - W24
Bartman, Tim - W3
Bassendale, Megan - A30
Bassi, Giavanna - Y78
Battimiello, Valentina - J33
Baudeflet, Matthieu - B119
Bayer-Broring, Carolyn - K26
Belcher, William - A100
Bell, Dakota - Y13
Bell, Leah - A82
Bellair, Colin - G10
Belna, Jennifer - B37
Benecke, Mark - LW2
Bennett, Krista - A134
Bentil, Edward - B10
Berkland, Haley - B166
Berneschi, Giulia - F8
Bernet, William - J11
Besse, Micki - A138
Best, Kaleigh - A14
Best, Safiya - B28
Beyerl, Zack - B137
Bhaloo, Zain - K5, W20
Bhati, Kajol - B61, B133
Bhatt, Sushil - F6
Bhembe, Qhawe - B199
Bianchi, Ilenia - H10, H12, H16
Bihun, Tatiana - F63
Blair, Cooper - B15
Blankenship, Susan - F62
Bless, Bethany - I22
Blocker, Allison - Y43
Bobka, Laurel - W6
Bochard, Kira - L66
Bodwal, Jatin - I109
Boechler, Hayle - B141
Boire, Nicholas - L10, Y48
Bolhofner, Katelyn - W21, W23
Bollé, Timothy - C14
Bolte IV, John - D19
Bolzan, Filippo - I40
Bonetti, Jennifer - B98
Bonicelli, Andrea - I45
Bonilla, Kaitlyn - L30
Boopasiri, Slun - I54
Borchert, Dylan - Y61
Borko, Zelalem Markos - J23
Borrelli, Mia - B178
Borrini, Matteo - A68, A149, LW4
Bosman, Ingrid - L44
Boster, Joshua - F20
Bowen, Gabriel - A41
Boyd, Derek - A128
Boyd, Donna - W1
Boyer, Grace - Y17
Bracamontes, Jennifer - G22
Brasi, Cristina - J34
Brenner, Charles - B188
Brink, Farah - W1
Brooker, Monica - J28

PRESENTING AUTHOR INDEX

Brown, Katherine - W5
Browning, Haylie - B104
Bryand, Kelsie - W5
Brzica, Stjepan - L19
Bublil, Nurit - F49
Buckmire, Meredith - Y57
Buehne, Jonathan - I87
Buikstra, Jane - W23
Bülbül, İlayda - K25

Buongiorno, Luigi - J15, J18
Burkhart, Jared - L15
Burns, Maylynn - Y68
Buscaglia, JoAnn - B125, G7, G29
Buscarello, Alexzandrea - B155
Busey, Thomas - B131
Bush, Mark - W16
Butler, Ella - F108
Butler, John - G12
Butt, Moin Ahmad - F69
Buxa, Lydia - B162
Buzzini, Patrick - B212, W13
Byrd, Alyssa - I50
Byrd, Jason - F81, W15

C

C. Zapico, Sara - A1, B80, S2
Cablk, Mary - G32, W12
Caceres, Sarah - B95
Calafiore, Jasmine - I31
Callahan, Michael - D16
Callegari, Enrica - I71
Campagna, Shawn - F1, G32, W12
Campbell, Timothy - K24
Can, Melike İlayda - K18
Candela, Andres - I102
Canellas, Marc - C16, G25
Canellas, Maureen - E8
Cano, Kris - DD1
Cantu, Cesar - I53
Capistran, Briana - B218
Cardasis, William - J35
Cardinale, Andrea Nicola - J15
Carew, Rachael - A150
Carpano, Francesco - I21
Carrillo, Kayli - B38
Carriquiry, Alicia - W26
Carter, David - I1
Casale, Anna Maria - J5
Casey, Eoghan - C1
Cassman, Alexia - B171
Castagnola, Maria - Y64
Castellani, Rudolph - W17
Casula, Chiara - F70, F113
Cavise, Joseph - G16
Cecannecchia, Camilla - J4, J7
Cha, Ha-Eun - F68
Chambers, Taylor - B78
Champion, Samantha - W17
Chan-Hosokawa, Ayako - L53
Chandran, Aswini - I108
Chaski, Carole - D31, D33, W4
Chaudhary, Muhammad - L12
Chaves, John - J14
Cheng, Ya-Chih - B181
Chepren, Stacey - F88
Chernesky, Taqiyah - B111
Chiappetta, Maria Elena - Y4
Chighine, Alberto - I46
Cho, Sohee - B139
Christy, Brenda - B217
Chu, Elaine - A131
Chute, Jason - B193
Cianci, Vincenzo - I10
Cioffi, Andrea - J4, J7
Cipolloni, Luigi - I75
Cisternino, Andrea - I83
Claassen, Brittany - B63
Clarke, Chris - D13
Clayton, Nicole - Y40
Coberly, Sam - A73
Coble, Michael - B83
Cole, Mary - A59
Cole, Stephanie - A35, A92
Coleman, Donna - W7
Collette, Kate - Y21
Collier, Jessi - L35
Collini, Federica - I114
Collins, Dr. Peter - J16
Collins, Joanna - S2
Collins, Megan - F53
Collord-Stalder, Hailey - A86
Colucci, Angela - I26
Colón Hernández, Nahimarys - I11, I81
Concato, Monica - I57
Concheiro-Guisan, Marta - L69
Conlon, Mei - Y81
Connon, Catherine - DD6
Conte, Jillian - B67, B69
Cordasco, Fabrizio - I31, J21
Cornelison, Jered - W1
Corsetti, Deanna - F47
Costantino, Andrea - F109, I25, I59, L38
Cottengim, Carri - F101
Cotton, Robin - B73
Couch, Alleigh - B157, B161
Crimmins, Danielle - CB4
Croce, Emma - L38
Cross, Laura - Y26
Cuchara-Blagmon, Breanna - I39
Cucinotta, Isabelle - Y5
Cuellar, Maria - F59
Cuerrier-Richer, Elisabeth - A79
Curtotti, Donatella - G1, G2, G4

D

Da Silva, Thiago Augusto - E4
Dalzell, Kourtney - B221

Dang, Emily Yen - B194
Danser, Kari - B202
Dargan, Rushali - B105
Das, Siddhartha - A21
Davidson, Marion - A97, A130, F3
Davis, Mary - A64, W12
Dayar, Şura - K23
De Alcaraz-Fossoul, Josep - K19
De Cree, Theresa - Y7
De Donno, Giorgio - A4
De La Paz, Jade - A146
De Simone, Stefania - I75
De Sousa, Marcos Antonio - F77
De gabriele, Giovanni - F85
DeAngelo, Theresa - W15
DeBord, Joshua - B92
DeHeer, Kate - B31
DeMarco, Lawrence - J11
Decker, Summer - W8
Dedouit, Fabrice - W8
Delgado, Thomas A. - A52
Delger, Dana - G8
Denn, Max - B223
DesPortes, Betty Layne - W21
Desiderio, Vincent - B124
Devesse, Laurence - B142, W11
Dhabbah, Abdulrhman - F10
Dhamne, Aditi Kishor - Y16
Di Fazio, Aldo - F71
Di Maria, Stefano - I82
Di Nunzio, Michele - B197
Di Trani, Sara - I38
Di Vella, Giancarlo - J10
Diaczuk, Peter - B18
Diani, Luca - F36, L42
Diaz, Francisco - F43
Dickerson, Dakota - Y58
Dimitrova, Alexandra - I67, L38
Dinh, Ut - B146
Dinova-Wimmer, Wendy - C26
Ditto, Phillip - A54
Do Amaral, Dineusa Maria - Y49
Dodson, Leslie - W3
Dominguez González, Tania - B42
Dominguez, Victoria M - A1, S2
Dominko, Karin - A122
Domitrovich, Stephanie - CB1
Domitrovitch, Stephanie - J11
Donato, Laura - A32
D'Oca, Caroline - B24
D'Orazio, Amanda - L51
Douglas, Renea - Y77
Downs, Jcu - W4
Dunham, ChristiAna - A110
Dunn, Bret - I103
Dunn, Carletta - Y55
Dunn, Frankie - A133
Dunn, Rhian - A147
Dunn, Tim - D7

PRESENTING AUTHOR INDEX

E

Eacott, Victoria - A76
Easter, Michael - W3
Eckenrode, Brian - B216
Eddy, Gloria - A5
Edgar, Heather - A18
Edmunds, Kimberly - B57
Edwards, Delaney - Y82
Ehmann, H. Ross - B227
Eldon-Edington, Joanna - B94
Eldridge, Heidi - B126, B130, B177
Elifritz, Jamie - W8
Elkins, Kelly - B206, W15
Ellefsen, Kayla - W22
Ellingham, Sarah - S2
Ely, Susan - I117
Emery, Julia - I2
Epstein, Brandon - C24, DD3, S2, W4
Erisman, Edward - B120
Esteban, Jaycie - Y42
Etim, Sylvia - B135
Etze, Brielle - Y41

F

Fabrello, Chiara - I29
Faisal, Eman - A145
Farhadi, Pegah - B143
Fassette, Timothy - L32
Faust, Bethany - I34
Feirstein, Shelby - A89, B5
Fenske, Regan - B187
Fera, Vjola - J1
Feras, Khalid - B53, B59, B60, F29
Fernandes, Marcio - F87
Ferragut, Julie - B6
Ferrara, Michela - F71
Ferrell, Jamie - E1, E9
Ferrell, Morgan - A129
Ferrero, Alessandro - D29
Figueroa, Alexa - B25
Finlayson, Janet - A37
Fiordigigli, Addio - B55
Fisher, David - F58
Fitzpatrick, Colleen - B84, CB5, LW5
Flaherty, Taylor M. - A13
Fleischman, Julie - A137
Flouri, Despoina - A25
Focardi, Martina - F2, F109
Fontani, Marco - C28
Forbes, Thomas - F24
Force, Jaden - Y79
Ford, Russell - B95
Forry, Erin - G17, S1
Fortney, Amber - W15
Fracassi, Ilaria - I30
Francaviglia, Martina - F72, I13, I15
Franceschetti, Lorenzo - J29
Franck, Darren - D15, D20

Franz, Gunnar - D24
Frasier, Tuesday - A93
Fredericks, Jamie - B72
Freitas, Corina - LW3, W7
Friday, Samuel - F25
Frisch, Mark - B154
Fukuda, Haruki - D25, I14
Fulginiti, PhD, D-ABFA, Laura - W21, W23
Fulp, Kaitlyn - A114
Furton, Kenneth - B27, F79

G

Galano Cruz, Olisdey - B43
Gallegos, Shawna - F89, F90
Galvan, Ella - B179
Gamette, Matthew - B204, B205, E3
Ganninger, Chaney - F31
Garavan, David - W22
Garcia, Lynn - G13, G20
Garcia, Susana - B35
Garofano, Luciano - CB6, J38
Gary, Kevin - W23
Garza, Shelby - A109
Gehring, Kendall - A39
Gell, Dara - I92
Geniuk, Matt - W3
Gent, Luke - Y70
Geradts, Zeno - C29, C30
Gestring, Brian - A99, G30, LW1
Getz, Sara - A45
Ghamlouch, Alessandro - I36
Ghemrawi, Mirna - B77, B201, S2
Giacani, Elena - I78
Giacomello, Emma - A83
Gill, James - I117
Gino, Sarah - E15
Gittelson, Simone - B186, W14
Gitto, Lorenzo - W17
Glavee, Kaitlyn - A142
Glynn, Claire - B85
Goden, Christopher - A112
Goecker, Zachary - B75
Goff, Mark - K1, K9
Goffredo, Vito Maria - I86
Goia, Sofia - F92
Gomes, Alcir - B185
Gomonit, Munchelou - L65
Gondek, Emily - Y80
Gong, Yufeng - C5
Gonzalez Morales, Alexa - Y75
Gori, Valentina - F2
Grande, Abigail - I66
Gray, Teresa - L47
Greco, Daigoro - F18
Grgicak, Catherine - B200
Grover, Justin - C3
Gruenthal-Rankin, Ariel - A48
Gualtieri, Saverio - I24, I35, I73
Guerini, Marta - I25, I59

Guido, Mark - C3
Gunther, Wendy - I99
Gupta, Shalini - H11
Gürol, Ayşe - E17
Guthrie, William - W6
Gutierrez Ayala, Carlos - F64, F84
Gutierrez Ruiz, Angel - Y66
Gutierrez, Eliana - Y29
Gutierrez, Richard - G19

H

Ha, James - G32, W12
Hainsworth, Sarah - D18
Hall, Ashley - B190
Hampton, Alyssa - L16
Hampton, Sydney - B46
Hanka, Janean - B125, Y35
Hans, Krystal - I8
Harcke, Howard - W8
Harden, Angela - A111
Hardin, Savannah - I62
Harding, Brett - F100
Harding, Patrick - W10
Hardman, Hope - Y36
Hardwick, Emma - B151
Harrell, Michael - I91
Harris, Christina - I42
Harris, Jacob - A50, W23
Harris, Jane - A28, A88
Harris, Will - F15
Hartman, Rebecca - L67
Hartnett-McCann, Kristen - W21
Hartung, Kathryn - F17
Hassett, Natali - B110
Heartsill, Chris - W10
Hecker, Alexis - Y11
Heckerroth, Jonathan - W20
Heine, Kimberley - L54
Hellwig, Danny - W11
Henson, Kristy - Y37
Herbst, Brian - D13
Hernandez, Pedro - W3
Hessler, Meaghan - L68
Hetzke, Jacob - B36
Hewitt, Terry-Dawn - F94
Hicklin, R Austin - G7
Hicks, Elauna - A12
Hietpas, Jack - G29
Hill, April - F61
Ho, Marissa - B175
Hobbs, Maryann - S2
Hoblock, Courtney - E10
Hodges, Javier - B49
Hoffman, Riley - F13
Hofland, Samantha - A71
Hofmann, Heike - W26
Hogan, Kayla - B62
Hogg, Morghan - A90
Holcombe, Savannah - A123

PRESENTING AUTHOR INDEX

Holmes, Jeffrey - D28, G26
Hopkinson, Krystyna - F82
Houck, Max - F114
Houghton, Kayla - Y76
Hshieh, Katherine - Y22
Hu, Xiao - C9
Huang, Ting-Yu - B47
Huestis, Marilyn - L49
Huffine, Edwin - F76
Hughes, Clinton - G14
Hughes, Cris - A143
Hughes, Nicolas - G16
Hulse, Courtney - A60
Hunkeler, Robert - F52, F106
Hunter, Cheryl - S2
Hüsrevoğlu, Yaren Hande - K2

I

Iacoponi, Naomi - B14, F14, F113
Iancu, Lavinia - I43
Ibrahim, Samiah - K8, S1
Iera, Jaclyn - B89
Ignagni, Gianluca - G2
Isa, Mariyam - A118
Isaac, Carolyn - A55, W1
Ivan, Jerković - A144
lyde, Nicholas - B17

J

Jablonski, Sara - L20
Jackson, Glen - B228
Jackson, Nickolyn - A78
Jackson, Nicole - I117
Jaimes, Isabel - E11
James, Treasa - Y50, Y51
Jamshaid, Tahir - B60, F29
Jarrell, Heather - W8
Jarvis, Hannah - I6, I61, I63
Javan, Gulnaz - I42
Jayawardana, Galpayage Dona Thouli - nan
Jeong, Yangseung - A22
Jernigan, Nicholas - B48
Johnson, Bryan - W16
Johnson, Luke - E16, F35
Johnson, Steven - C20
Johnson, Tracey - F66
Jones, John Paul - G6, G8
Jones, Kate - B13
Jones, Keisha - DD4
Joo, Eunah - B107
Joos, Megan - B165
Jorden, Michelle - W17
Joseph, Skylar - A51
Joslyn, Mandy - F12
Juarez, Chelsey - A91
Jutila, Alexander - I7

K

Kabir, Abuzar - L3
Kaegi, Valeria - E18
Kalafut, Tim - B189, W14
Kalfoglou, Ersi - I111
Kammrath, Brooke - B180
Kamnikar, Kelly - A124, A126
Kang, Tae Mo - I52
Kaplan, Molly - F107
Karabiyik, Umit - C5, C9, C11
Karsten, Jordan - A15
Kasher, Shayna - L14
Kaur Bhambara, Amandeep - B7, B133
Kaur, Jasmine - B65
Kaur, Ramandeep - F19
Keith, Kaylyn - L25
Keller, Calvin - D8
Keller, Jordan - L36
Kendell, Ashley - A62
Kennedy, Jarrah - W2
Kennedy, Roderick - W25
Kessler, Michael - F78
Keyes, Kelly - F38, F80
Khandaker, Ethan - L29
Kharal, Ashfaq - CB8
Kilcarr, Molly - A78
Kim, Daye - B147
Kim, Dong-ho - A103
Kim, Ga Eun - I76
Kim, Moon-Young - I3
Kimmerle, Erin - A63
King, Emily - F46, F112
Kingsbury, Stephanie - K27
Kinneary, Madelyn - F74
Kintz, David - F103
Kishbaugh, Janine - E5
Klaes, Alexandra - A10
Klemm, Maggie - A36
Knochenhauer de Souza Mendes, Ingrid - J2, Y54
Koch, Sandra - B208, G6
Koester, Maci - B182
Kolev, Yanko - W13
Kolpan, Katharine - A57
Kostanian, George - I84
Kostelecky, Nicolas - I90
Krishnaswamy Usha, Amudhan - Y32
Krotulski, Alex - L45, W22
Kulbacki, Kevin - K7
Kumisaka, Kento - B54
Kuroda, Drew - B210
Kurtz, Stuart - L17

L

La Lande, Ava - L7
Lacey, Douglas - S2
Lambrigger, Taylor - A84

Lamm, McKenzie - Y38
Landrie, Rachael - F104
Lanfranchi, Anthony - A31
Lanster, Steven - H15
Latham, Jason - C23
Laura, Cirillo - A132
LaVake, Samantha - A119
LaVena, Hannah - B172
Layle, Nathan - L58
LeBeau, Marc - L40, W10
Ledergerber, Thomas - B220
Ledić, Andrea - K12, K14, K16
Lednev, Igor - F23
Lee, Beomseok - B71
Lee, Chichi - DD3
Lee, Dong Yeon - I5
Lee, Hwan Hee - Y65
Lee, Jinhee - LS1
Lee, Steven - S2
Legron Rodriguez, Tamra - F57
Lehtimaki-Croisier, Bella - Y72
Leitholf, Daniel - Y33
Lemay, Marie - B163, B169
Lemos, Nikolas - L70
Lenahan, Danielle - J36
Lentsch, Emily - Y67
Lesciotto, Kate - A11
Lettner, Kimberly - B79
Lewis, Andra - F54
Li, Xiujun - B203
Liddicoat, Laura - W10
Liggins, Christany - B158
Lima, Vinicius - B20
Limoges, Jennifer - L52, W10
Lin, Yu-Chih - B152
Lindquist, Christina - F81, F99
Listi, Ginesse - A95
Livingston, Kristen - A87
Lo, Martin - A56
Lochner, Riley - I56
Logan, Barry - B93, L41
Logan, Caighley - F27
Loison, Julie - Y34
Lokits, Kirk - B156
Londino-Smolar, Gina - F60, W4, W15
Long, Katie - Y52
Long, Lisa - J25
Long, Nicole - A101
Lord, Kevin - W11
Lordo, Sean - Y39
Love, Jennifer - F43
Loveridge, Olivia - A102
Luna, Paola - I58
Lund, Steven - G18, W26
Lusa, Vincenzo - J5
Lydon, Caitlin - B39
Lyons, Bertram - C24

PRESENTING AUTHOR INDEX

M

Machado, Darcy - B41
Mack, Gregory - J28
Mack, Jenaye - F11
Macorano, Enrica - A2, A116
MacStudy, Martin - B115
Madrid, Michelle - W2
Magdaleno, Sarahy - D3
Maggi, Rebecca - F8
Mahmud, Esmael - Y12
Maier, Anna - A86
Maisetta, Gabriella - D23, F70, I79
Malhotra, Bhavye - C17
Malone, Christina - C26, S2
Maloney, Katherine - I117
Mancuso, Emma - Y60
Manta, Anna Maria - J20
Marcacci, Ilaria - D23
Marchand, Kailee - B50
Marchesini, Damiano - I77
Marciano, Michael - W4
Marinetti, Laureen - L43
Marisei, Mariagrazia - L5
Martin, Daniel - W21
Martin, Mikalaa - B207
Marzaioli, Antonio - I116
Mattei, Aldo - B128
Matulis, Nina - C11, C35
Mayol, Maria - B52
Mazuchowski, Edward - W8
McClary, Carl - K3, K28
McCord, Bruce - B192
McCoy, Mark - F110
McCrane, Samantha - A107
McDonald Jr, Gary - W21
McGrath, Jonathan - B100, B101, B102, CB4
McKee-Zech, Hayden - I51
McKinnell, Dante - J19
McMillen, Hannah - B219
Medeiros, Jose - D30
Meekins, Jessemia - Y71
Mehlman, Alexa - B97
Mehmeti, Venera - E12
Meiklejohn, Kelly - B2, B140, C22
Melançon, Kathryn - I4
Melchers, Amber - I89
Mele, Federica - H5
Meli, Theresa - L61
Melillo, Stephanie - A69
Menendez, Mj - L41
Mertz, Lisa - B86
Messenger, Olivia - A24
Messer, Diana - W1
Metz, Tom - B90
Michael, Semhar - B136
Miles, Leslie - E16
Mileva, Biliana - I12, I27
Militi, Maria Chiara - I73
Miller, Heidi - W5

Millington, Olivia - I95
Minervino, Aline - F95
Mink, Kirsten - A29
Miranda, Michelle - W13
Mischak, Nicole - B137
Miyamoto, Sheridan - E13
Moffatt, Ellen - I68, I80
Mogle, Mark - S1
Mohammed, Linton - K11, K13, W9, W20, W25
Mohr, Amanda - L55
Mohr, Ken - LS1
Moini, Mehdi - B170
Mondello, Cristina - I10
Mones, Vinalon - B198
Montana, Angelo - I47
Montanari, Eva - I47
Montero, Shirly - B22, B211
Morgan, Jillian - L60
Morgan, Scott - LS1
Morningstar, Angel - C33
Morton, Kaylee - D2
Mozayani, Ashraf - C12
Mullen, Lauren - B70
Murphy, Sarah - Y62

N

Nakhaeizadeh, Sherry - A58
Nandagopalan, Mitha - G24
Napoletano, Gabriele - I17
Naseer, Abid - B9
Nasir, Huma - B44
Nau, Anna-Maria - A54
Neff, Vanessa - W3
Neifeld, Jillian - L63
New, Briana - A125
Newell, Lara - F55, W16
Nguyen, Athena - D4
Noha, Ella - Y53
Noll, Abigail - Y63
Northrup, Andrew - F67
Nowlin, Rylene - B204
Nunes, Gabriel - C13
Nuzum, William - CB1

O

Oaks, McKenna - B148
OBrien, Meg - K10
OBurke, James - F41
Occhipinti, Carla - J37
Odom, Nicole - C6, C27
Oefelein, Rachel - W11
Ogbanga, Nengi - Y3
Oh, Yujin - F16
Oiyemhonlan Halbert, Etuaje - J12
Okesanjo, Omotinuola - E14
Olckers, Antonel - W13
Oldoni, Fabio - B3

Ologg, Sadie - B168
Olson, Larry - K15, K20
Omeasoo, Haley - A139
Ommen, Danica - B121, K6
Onyejike, Darlington - A44
Onyekwelu-Udoka, Lucky - D26
Ortiz, Meishshialette - I58
Osborne, Niki - F40, W2
Özer, Dilan - K21

P

P.S, Muhammad Safar - CB7
Pacana, Amanda - L21
Palenik, Christopher - I64
Palermo, Paolo - I101
Pallante, Antonio - J3
Palmiere, Cristian - J6, J9, L4
Palmiotto, Andrea - A74
Pandey, Astha - L11
Pantè, Grazia Giulia - I13, I15, J3
Papsun, Donna - L57
Paranaiba, Renato - B12
Parchake, Manoj - F7, F73
Parikh, Snehal - L9
Paris, Ashley - Y14
Park, Chan-Seong - D1
Parker, Blanca - B112
Parmelee, Kevin - F48, F58, F86
Parrott, Jonathan - I9
Partida Contreras, Alejandro - I19, I70, I93
Pascale, Natascha - F71
Passalacqua, Nicholas - A38
Patch, Michelle - W27
Patchan, Kathleen - J26
Pathak, Professor Dr. Akhilesh - A66, B214
Patnaik, Mrinal - Y69
Patra, Dr Ambika - A135
Patterson, Courtney - L34
Patton, Amy - L31
Pavanelli, David - D10
Peat, Imani - Y44
Peer, Michal - A75
Pérez, Amadeo - F4
Perez, Biannet - A140
Perrault Uptmor, Katelynn - B129
Peters, Morgan - B82
Petreca, Victor - E6, E10, W27
Phan, Madeleine - L24
Pienkowski, David - W4
Pieri, Maria - J33, L2, L8
Pigaiani, Nicola - I105
Pinacchi, Maria Paola - F72, I13, I15
Pinckard, J. Keith - DD1, I110
Pink, Christine - A49
Pittner, Stefan - I48
Poole, Veronica - Y30
Pope, Katharine - A99, W16
Poplinski, Lindsay - J12
Porta, David - D14

PRESENTING AUTHOR INDEX

Porterfield, Caitlin - F110
Pottage, Katie - F83
Potter, Alex - Y25
Pough, Xavia - L33
Poulos, Christopher - B19
Poulton, Baillie - F51
Pradelle, Irene - I106
Prat, Sebastien - J30
Prescott, Lake - B30
Procopio, Noemi - I41
Prokesch, Emily - G19
Prothero, Jack - W6
Pudvah, Emily - E10

Q

Quan, Edward - I20
Quigley-McBride, Adele - B104, B130
Quinter, Alexis - B8

R

Radaelli, Davide - I104, I107
Raddatz, Meagan - W15
Rahn, Alexandra - B150
Ramasamy, Reeya - C34
Ramirez Torres, Andrea - B196
Ramotowski, Robert - G17
Ranadive, Anjali - W19
Randolph, Jennifer - W16
Rasmussen, Jessica - B167
Reck, Sophia - A81
Reed, Isabelle - Y27
Reinders, Stephanie - K4
Rhodes, Ciara - B116
Ricchezza, Giulia - L6
Richetelli, Nicole - G7
Ringenberg, Tatiana - C34
Rippy, Michelle - F105
Risinger, Michael - W25
Rissi, Nancy - W16
Rivers, David - I55
Robinson, Elizabeth - B149
Robles, Madeline - A53
Roca, Gabriela - B32
Rockhold, Jenna - C11
Rodney, Tamar - W27
Rodriguez, Tiffany - B74, B213
Rodriguez-Cruz, Sandra - B229, W6
Rogers, Marcus - C11, C35
Rohrig, Timothy - L70
Rojas, Carolina - S1
Romanelli, Marta - F2
Rooms, Russell - E7
Roosendaal, Jeroen - L64
Roper-Miller, Jeri - F102
Rosenblum, Michael - F59
Ross, Karen - B86
Rountree, Angelic - B127
Roux, Claude - W13

Rovito, Giada - F36, L42
Roy, Tiffany - W19
Rozycki, Hope - Y46
Ruju, Matilde - F36, I106
Runge, Teresa - A67
Rutherford, Jeff - C8
Ryan, Erin - W5

S

Sablone, Sara - J15
Sacco, Matteo Antonio - I24, I31, I35, I73, J21
Sachman, Nicole - B56
Sajdak, Dale - W3
Sakelliadis, Emmanouil - I23
Salyards, Michael - W9, W26
San Nicolas, Alexander - L13
Sandikçi, Nurdan - B11
Sanger, Robert - B106
Sanger, Shivani - A17
Santamaria, Anna - G3
Saracevic, Larisa - H14
Saraf, Ashish - I33
Sarancha, Julianne - A43
Sauerwein, Kelly - G31
Savage, Catherine - W6
Scacciaferro, Hailey - A19
Scafide, Katherine - S2
Scalise, Carmen - J21
Schackmuth, Madison - L59
Schaeffer, Hannah - Y28
Schmid, John - DD5
Schmitz, Jennifer - F110
Schrode, Neal - B109
Schultz, Amanda - A7
Schwark, Thorsten - I96
Schweitzer, Carol - W16
Schwerer, Michael - I100
Sciarretta, Marybeth - W11
Scott, Christina - B4
Scotti, Veronica - F37
Scuotto, Adriana - J33
Seba, Jeremiah - B96
Sehrawat, Jagmahender Singh - A27, A40, H7, H9
Seidel, Andrew - A34, W21
Seigfried-Spellar, Kathryn - C32, C34, C35, W4
Seither, Joshua - W22
Semma Tamayo, Alexandra - A117
Seppini, Giuseppina - F34
Sersen, David - D17
Sessa, Francesco - F72, J3
Sgheiza, Valerie - A105, S2
Shah, Megha - H6
Shakeshaft, Ellen - A33
Shaprio, Aaron - W4
Sharma, Akanksha - F26, Y18
Sharma, Shivkant - B7
Sharma, Vishal - B23, B64, B118
Sheikh, Hasna - F39

Shelton, Donald - G28
Shennan, Chris - C4
Shepard, Claire - W15
Shetty, Prateek - DD4
Shi, Chen - C10
Shnaidman, Vivian - J31
Shoff, Elisa - W22
Silveira, David - A151
Simpson, Andrew - Y73
Sines, Rebecca - Y74
Singh, Nrashant - L1
Singi, Yatiraj - A23
Skene, Pate - G10
Smith, Alexander - A94
Smith, Ashley - A65, I94
Smith, Elizabeth - D32, H2
Smith, Joshua - W6
Smith, Madison - F115
Smith, Ryan - B169
Smith-Escudero, Sarajane - Y9
Smoljanović, Tina - B88
Snedeker, Jennifer - B114
Snidero, Beatrice - I98
Snyder, Sean - D16
Sommerville, Anna - Y24
Song, Liguó - B224
Soto, Victoria - A106
Spadazzi, Federica - J20
Spatola, Francesca - B41
Spaun, Nicole - C19
Speck, Patricia - W13
Spencer, Caitlyn - B68
Sperber, Arielle - A61
Spessard, Angela - W2
Spicer, Ashley - F98
Spies, Amy - I74
Spillar, Alyssa - Y23
Spina, Federica - D23, F70, J37
Spiros, Micayla - A46, A58
Sremack, Joseph - CB3
Sriram, Trupti - B195
Stacey, Janet - C31
Staymates, Matthew - B220, D6, F89
Steadman, Dawnie - G32, W12
Steel, Chad - C33
Steiger, Giada - A120
Stern, Hal - W9
Stern, Libby - B209
Stokes, Nancy - B113
Stone, Alex - B16
Strelka, Emily - B145
Subhashini, Nidhi - B76, F21
Sukta, Andre - L39
Suldovsky, Brianne - J32
Sulner, Andrew - K22, W25
Sumani, Khlea - H3, H13
Sunil, Sunil - L37
Sutton, Belicia - L28
Swenson, Victoria - A26
Swofford, Henry - G5, W4, W18

PRESENTING AUTHOR INDEX

T

Tajdin, Fiza - B160
Tan, Clarissa - C24
Tarozi, Ilaria - I97
Tatsumi, Kanayo - I117
Taylor, Daniel - I60
Taylor, Jordan - L48
Taylor, Lois - F50
Taylor, Melissa - F33, G11, G17, G21, W2
Taylor, Samira - F44
Tegtmeyer Hawke, Rylan - A72
Teitelbaum, Jeff - F75
Thali, Michael J. - W8
Therault, Amy - L18
Thomas, Leah - B45
Thomas, Orianna - L50
Thompson, Christopher - S2
Thompson, Olivia - A96
Tichinin, Alina - A85
Tiscione, Nicholas - L56
Tomlin, Leigh - G9
Tornese, Lorenzo - I10
Towns, Keshonna - B159
Townsend, Alysia - B29
Trent, Teagan - B58
Treves, Biancamaria - I16
Trevino, Amariah - A20
Trevino, Joe - F111
Trimble, Jack - F22
Tripi, Dalila - J20
Troyer, Aj - Y59
Truppi, Joseph - B191
Tsai, Andy - W1
Tumram, Niles - I32
Tupik, Sherri - B95, B173
Twene, Christopher - B117
Tyagi, Sonali - C32

U

Unger, Carter - A113
Unwin, Samantha - Y10
Upadhyaya, Himanshi - F91
Urbanova, Petra - C21
Uribe, Paul - I115

V

Vacca, Alex - A77
Vaiano, Fabio - L38
Vaira, Michele - CB6
Valentine, Julie - E3, E16, F35
Valerio, Raymond - G27
Van Buren, Mandi - W11
Van den Heuvel, C. Elisa - K8
Van den Hondel, Karen - I69
VanBaarle, Alexis - A121
Vastrick, Dirk - S2

Velho, Jesus - B66
Veltri, Jessica - W3
Venkatasubramanian, Gautham - D27
Venter, Casper - W13
Verdoorn, Alex - F96
Verdoorn, Briana - F5
Verostick, Kirsten - A42
Verrina, Maria Cristina - I24
Vest, Austin - Y45
Vilar, Gustavo - C15
Villegas, Agatha - B153
Vinci, Annachiara - I37
Visci, Paolo - D22
Visi, Giacomo - F70
Vitale, Giulia - H1
Volpini, Laura - J38
Volz, Jessica - W13
Vorbürger, Theodore - G18
Voudouri, Mariana - F28

W

Walker, Ivy - B132
Walls, Chip - W22
Walraven, Tracy - C18
Walsh-Haney, Heather - CB2
Walter, Jordan - Y2
Walton, Sara - L46
Wang, Julia - B33
Wang, Vicky - Y56
Warner, Tianna - Y19
Waters, Kelly - I44
Waxenbaum, Erin - A98
Weaver, Michael - B230
Weedn, Victor - I65
Weidner, Lauren - I49
Weisensee, Katherine - A80
Westberry, Kimberly - W18
Whaley, Fantasia - B103
Wheatley, Natasha - B184
Wheeler-Moore, Alesia - F42
White, Alice - B174
White, Lauren - F93
Whitney, Jessica - B87
Wier, Cheryl - E2
Williams, Anna - A141
Williams, Joyce - E4, W27
Williams, Rhys - A8, A9
Willis, Sheila - B122, W14
Wilson, Walter - B225
Winburn, Allysha - A47
Winokur, Agnes - B74, B91, B222, S1, W18
Wise, Natalie - A16
Wisler, Caroline - Y20
Wittman, Karen - W10
Wolfe, Gabrielle - B34
Wolford, Bryce - W3
Wooton, Elaine - K17
Word, Charlotte - DD5, W24
Worrell, Erin - W22

Y

Yang, Rayna - Y8
Yates, Taylor - L26
Yihung, Chou - L22
Yin, Isabel - J17
Yu, Jorn - W4

Z

Zagarria, Hope - W2
Zahn, Greta - Y15
Zaldivar Eyre, Fernando - B26
Zaney, Mary - W22
Zarwell, Lucas - F45
Zemanek, Cecilia - Y6
Zhang, Mengliang - B51
Zhang, Qun - A136
Zhang, Ying - W15
Zhang, Zheng - B134
Zhao, Holly - B40
Zheng, Xiaoyu - B106, B108
Zhong, Wencheng - Y31
Zia, Muhammad Abdul Moiz - C2
Zirpoli, Patrick - W5
Zjalic, James - C25
Znachko, Caroline - A6
Zoch, Victor - D9



BRING YOUR OWN SLIDES (PowerPoint®) BYOS.ppt

Wednesday Evening: 8:00 p.m. - 10:00 p.m.

In order to keep BYOS.ppt informal, fun, and informative for the large and diverse audience, here are a few things to keep in mind for the BYOS.ppt program at the 2025 AAFS Annual Scientific Conference in Baltimore, MD:

- Presentations must be in PowerPoint® format.
- Proposals must be submitted on this form accompanied by a “6-slides-per-page” printout of the presentation and an electronic copy on CD or flash drive.
- BYOS is not intended as a forum to present scientific papers. It is designed as a means to present interesting information and/or unusual case(s) that may be educational and blended with humor.
- Speakers should plan on 10 minutes in which to present their material.
- Material being presented in other parts of the AAFS scientific program will not be accepted at BYOS.ppt.
- Tables, charts, and graphs should be avoided, making every effort to use slides of scenes, bodily findings, and evidence.

This completed form, a “6-slides-per-page” printout, and the electronic presentation copy should be delivered to the on-site AAFS Registration Desk by 4:00 p.m. on Wednesday, February 19, 2025. Presentations will be selected and scheduled based on perceived interest to the audience and in the order in which the completed submissions are received. This form and required printout are needed to organize the BYOS.ppt program and to allow appropriate allocation of continuing education credit.

BYOS PROGRAM FORM

Name and Degree(s): _____

Job Title: _____

Place of Employment: _____

AAFS Section Affiliation (if none, write “none”): _____

The presentation is being offered primarily to:

- Solicit input/advice on a challenging case
- Present interesting information or case(s) for education purposes
- Entertainment

Presentation is:

- A single case
- A series of cases with a common topic
- Multiple cases with unrelated topics
- Other (please specify): _____

Briefly describe the material to be presented: _____

What are the major points to be emphasized?: _____

How will the attendees benefit from this presentation?: _____

Is there commercial interest in the material being discussed?: No Yes (if yes, please describe): _____

How much presentation time is required?: _____ minutes How many PowerPoint® slides will be shown?: _____

Presenter’s local hotel: _____ Room #: _____ Phone #: _____

U.S. Cell Phone: _____ Email you can access while at the meeting: _____

The BYOS agenda, scheduled presentation times, and continuing education credit hours will be posted near the BYOS meeting room.

AAFS STAFF USE ONLY: Date Received: _____ Time: _____