



PROGRAM



February 19-24, 2024

Denver, Colorado

Colorado Convention Center

#AAFS2024



TABLE OF CONTENTS

Officers & Officials	3
Program Committee	3
General Information	4
Sexual Misconduct Resources and Information	5
Conference Extras	6
Awards	7
Section Awards	8
Business Meetings	9
Financial Contributors	10
Continuing Education	11
Diversity and Inclusion in Forensic Sciences Forum and Reception	13
Mentor Program Breakfast	13
Student Academy	14
Forensic Science Education Programs Accreditation Commission Session	16
Young Forensic Scientists Forum Special Session	17
Interdisciplinary Symposium	20
Keynote Address	22
Plenary Session	23
Justice Talks Case Break Sessions	25
Luncheon Seminars	33
Workshops	37
Scientific Sessions	
Anthropology	76
Criminalistics	89
Digital & Multimedia Sciences	105
Engineering & Applied Sciences	109
Forensic Nursing Science	114
General	117
Jurisprudence	132
Odontology	136
Pathology/Biology	140
Psychiatry & Behavioral Science	153
Questioned Documents	156
Toxicology	158
Last Word Society	165
YFSF Poster Sessions	166
Key Word Index	172
Presenting Author Index	181
Bring Your Own Slides Form	188

OFFICERS AND OFFICIALS

Officers

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

Directors

Anthropology: Gregory Berg, PhD
Criminalistics: Matthew Wood, PhD
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: Dean De Crisce, MD
Questioned Documents: Linton Mohammed, PhD
Toxicology: Dan Anderson, MS

Section Officers

Anthropology

Chair: Krista Latham, PhD
Secretary: Debra Zinni, PhD

Criminalistics

Chair: Peter Diaczuk, PhD
Secretary: Sheree Hughes, PhD

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: Joyce Williams, DNP
Secretary: Amy Carney, PhD

General

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

Jurisprudence

Chair: Virginia Barron, JD
Secretary: Terry-Dawn Hewitt, LLM

Odontology

Chair: Robin Ainsworth, DDS
Secretary: Denise Murmann, DDS

Pathology/Biology

Chair: Jennifer Pechal, PhD
Secretary: Owen Middleton, PhD

Psychiatry & Behavioral Science

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

Questioned Documents

Chair: James Green, BS
Secretary: Kevin Kulbacki, MSFS

Toxicology

Chair: Amanda Mohr, MSFS
Secretary: Diane Moore, PhD

2024 Program Committee

<i>Program Chair:</i>	Matthew Wood, PhD	<i>Anthropology:</i>	Teresa Wilson, PhD
<i>Program Co-Chair:</i>	Karen Rosenbaum, MD		Jaymelee Kim, PhD
<i>Plenary Session:</i>	Vincent Desiderio, Jr., MS	<i>Criminalistics:</i>	Agnes Winokur, MS
	Dean De Crisce, MD		Lynn Schneeweis, MS
<i>Justice Talks Sessions:</i>	Virginia Barron, JD	<i>Digital & Multimedia Sciences:</i>	Josh Brunty, ScD
	Stephanie Domitrovich, JD, PhD		Christina Malone, MSFS
<i>Poster Sessions:</i>	Marla Carroll, BS	<i>Engineering & Applied Sciences:</i>	Kurt Weiss, MS
	Melissa Connor, PhD	<i>Forensic Nursing Science:</i>	Kelly Berishaj, DNP
<i>Workshops:</i>	Murrell Godfrey, PhD		Laura La Cagnina, DNP
	Kevin Kulbacki, MSFS	<i>General:</i>	Erin Koester, MS
<i>Luncheon Seminars:</i>	Emily Gottfried, PhD		Brian Clark, MFS
	Carole Chaski, PhD	<i>Jurisprudence:</i>	Leigh Tomlin, JD
<i>Last Word Society:</i>	Kenneth Melson, JD		Colin Bellair, JD
	Carla Noziglia, MS	<i>Odontology:</i>	Phyllis Ho, DDS
<i>Bring Your Own Slides:</i>	J.C.U. Downs, MD	<i>Pathology/Biology:</i>	Lavinia Iancu, PhD
	Joseph Prahlow, MD	<i>Psychiatry & Behavioral Science:</i>	Corina Freitas, MD
<i>Student Academy:</i>	Lynn Schneeweis, MS		George Annas, MD, MPH
	Ginesse Listi, PhD	<i>Questioned Documents:</i>	Gina Hunter, BS
<i>Interdisciplinary Symposium:</i>	Jessica Volz, DNP		Brenda Lanners, BS
	Adam Freeman, DDS	<i>Toxicology:</i>	Dayong Lee, PhD
<i>Local Arrangements:</i>	Michala Stock, PhD		Erin Karschner, PhD

GENERAL INFORMATION

Registration Desk Hours

Sunday	February 18	1:00 PM	-	5:00 PM
Monday	February 19	6:45 AM	-	5:00 PM
Tuesday	February 20	6:45 AM	-	6:00 PM
Wednesday	February 21	6:45 AM	-	5:00 PM
Thursday	February 22	6:45 AM	-	5:00 PM
Friday	February 23	6:45 AM	-	4:00 PM
Saturday	February 24	7:30 AM	-	11:00 AM

Exhibit Hall Hours

Wednesday	February 21	11:30 AM	-	4:00 PM
Thursday	February 22	9:00 AM	-	2:00 PM
AAFS Reception	(Exhibits Open)	6:00 PM	-	8:00 PM
Friday	February 23	8:00 AM	-	12:00 PM

All times are in the U.S. Mountain 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: Registrants and presenters at the AAFS Annual 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 American Academy of Forensic Sciences.
- 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.
- Any type of misbehavior or heckling during a presentation will not be tolerated. Attendee will be escorted from the session.

Future AAFS Annual Conferences

2025 AAFS Annual Conference

February 17-22, 2025
Baltimore Convention Center
Baltimore, MD

2026 AAFS Annual Conference

February 9-14, 2026
Ernest N. Morial Convention Center
New Orleans, LA

2026 AAFS Annual Conference

February 15-20, 2027
Rosen Shingle Creek Convention Center
Orlando, FL

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. (https://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. (<https://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

Denver Victims of Sexual Assault Unit
720-913-6035

Denver Center for Crime Victims Unit
303-894-8000

Denver Police Department
720-913-2000

<https://denver.prelive.opencities.com/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Police-Department>

National Sexual Assault Hotline: 1-800-656-4673

National Domestic Violence Hotline: 1-800-799-7233

RAINN

<https://www.rainn.org/>

Resources include definitions, statistics, crisis line, and crisis chat.

National Sexual Violence Resource Center

<https://www.nsvrc.org/>

Resources for survivors, including definitions, where to get help, and post-assault recovery.

National Domestic Violence Hotline

<https://www.thehotline.org/>

Resources include definitions, local resources/legal aid, 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 2024 conference offers not only top-tier educational content, but a number of ways for you to enjoy Denver, 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 Conference:

SUNDAY – FEBRUARY 18 | 4:00 PM

AAFS Hockey Night



Arriving early in Denver? Kick off the conference with the Stanley Cup-winning Colorado Avalanche as they take on the Arizona Coyotes! AAFS attendees will have special seats for the game, along with pre-game food, drinks, and networking.

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. Tickets must be purchased by January 31. Transportation to the arena is not included.

Cost: \$150 per ticket

SUNDAY – FEBRUARY 18 | 7:00 PM

Film Screening – Just Mercy

Join AAFS for a special screening of *Just Mercy*, the powerful and thought-provoking 2019 biopic illustrating the true story of 2024 Keynote Speaker and renowned lawyer Bryan Stevenson and his history-making battle for justice for a wrongly condemned death row prisoner.

Cost: Free



MONDAY – FEBRUARY 19 | 2:00 PM

TUESDAY – FEBRUARY 20 | 2:00 PM

Facility Tour: Denver City/County Office of the Medical Examiner

Take a peek inside the world-class facility home to the Denver Medical Examiner/Coroner teams. Specially designed to support the City and County of Denver, the office investigates over 2,000 deaths annually. 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 1-1.5 hours. Transportation to/from the facility will be provided.

Special thanks to Denver Chief Medical Examiner James Caruso for partnering with us to offer this opportunity.

Cost: Free

FRIDAY – FEBRUARY 23 | 7:00 PM

Closing Celebration: “Party on the Peak”

We’re wrapping up the week with a special celebration, themed around the mountains and skiing of Colorado. Taking place Friday evening, your ticket includes music, food, entertainment, and more. Wear your best “chalet chic” or “flannel fun” 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: \$50 per ticket



AWARDS

R.B.H. Gradwohl Medallion

John D. McDowell, DDS, MS



Dr. McDowell is a Professor Emeritus from the University of Colorado School of Dental Medicine and is a retired professor from the University of Colorado School of Medicine. Dr. McDowell is board certified by the American Board of Forensic Odontology. He is presently associate medical examiner for the city and county of Denver, CO. He is a past president of the American Academy of Forensic Sciences (AAFS) and a Distinguished Fellow of the AAFS. Dr. McDowell is past chair of the Forensic Sciences Foundation, the AAFS Executive Committee, and many other positions within the AAFS. He has also served as President of the American Society of Forensic Odontology. He has been published extensively in the fields of diagnostic sciences, forensic odontology, pathology, domestic violence, and HIV and has contributed to radiology, dermatology, and otolaryngology textbooks.

Dr. McDowell has a long and distinguished career in academia and shared governance at the University of Colorado. He has served three terms as Chair of the Faculty Council of the University of Colorado System's four campuses, two terms as President of the Faculty at the Health Sciences Center, and three terms as President of the Faculty Senate at the University's School of Dental Medicine. He has received multiple teaching awards and has received the Professor of the Year Award. Because of his contributions to shared governance at the University, he was selected to be a one-year Administrative Fellow for the University of Colorado's Board of Regents.

Dr. McDowell operates a forensic odontology consulting firm, McDowell Professional Consulting, based in Castle Rock, CO. He has been an expert witness in many standard of care issues across the United States. He has worked with many local, state, regional, and federal agencies, including coroners' and medical examiners' offices. Although Dr. McDowell is retired from full-time teaching, he is still presently very active in providing continuing education courses.

Dr. McDowell is a retired colonel in the United States Army Reserves where he served in multiple command positions, including several years as a Command Dental Surgeon and as a United States Army Hospital Commander. He has received multiple awards from the Department of Defense, including the prestigious Legion of Merit Award. Dr. McDowell also has served as a consultant to the United States Senate's Subcommittee on Missing and Killed in Action.

Diversity, Equity, & Inclusion Award

Kate Spradley, PhD

FSF Humanitarian and Human Rights Resource Center's Clyde Snow Award

Nermin Sarajlić, MD, PhD

FSF Emerging Forensic Scientist Award

*Elaine Y. Chu, PhD
Ya-Chih Cheng, MS
Sara E. Walton, MS*

FSF Warren-Young Scholarship

Mark A. Peacock, MNS

FSF Henry C. Lee Scholarship

Calil Makhoul, MSc

FSF Jan S. Bashinski Criminalistics Graduate Thesis Assistance Grant

Natali Hassett

Young Forensic Scientists Forum Founder's Award

Zain M. Bhaloo, MSc

SECTION AWARDS

The Section Awards will be presented during Section Business Meetings on Wednesday, February 21.

Section Award Honorees

Anthropology Section's

J. Lawrence Angel Award
T. Dale Stewart Award
Ellis R. Kerley Research Award
Outstanding Mentorship Award
Diversity & Inclusion Award

Amber M. Plemons, PhD
Eugénia Cunha, PhD
Mary Elizabeth Cole, PhD
Nicholas P. Hermann, PhD
TBD

Criminalistics Section's

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

John J. Lentini, BA
Jennifer S. Mihalovich, MPH

Digital & Multimedia Sciences Section's

Outstanding Case Study Award
Carrie Morgan Whitcomb Outstanding Service Award
Outstanding Student Research Award

Nicole R. Odom, MSFS
Marla Englander Carroll, BS
Shinelle Hutchison, MSc

Engineering & Applied Sciences Section's

Founders Award
Andrew H. Payne, Jr. Special Achievement Award
Steven Charles Batterman Award

TBD
TBD
TBD

Forensic Nursing Science Section's

Forensic Nurse Scientist Award
Forensic Nurse Innovator Award

Katherine N. Scafide, PhD
Joyce P. Williams, DNP

General Section's

Robert Gaffney Achievement Award
Paul W. Kehres Meritorious Service Award

Anita Hasert, BS
Brian S. Clark, MFS

Jurisprudence Section's

Harold A. Feder Award

TBD

Odontology Section's

Reidar F. Sognaes Award

Gary M. Berman, DDS

Pathology/Biology Section's

Milton Helpern Award
Best Resident Paper Award
Award for Achievement in the Forensic Life Sciences

James R. Gill, MD
Finn M. Auld, BMBS
Sherah L. VanLaerhoven, PhD

Questioned Documents Section's

Maureen Casey-Owens Award

Andrea Ledić, Msc

Toxicology Section's

Rolla N. Harger Award
June K. Jones Scholarship Award
Best Poster Award

Joseph J. Saady, PhD
Munchelou M. Gomoni, BS
Rebecca Smith, MS

BUSINESS MEETINGS

Attend Your Section's Annual Business Meeting!

Wednesday, February 21		
1:00 PM	-	3:45 PM Criminalistics
1:30 PM	-	3:45 PM Forensic Nursing Science
1:30 PM	-	3:45 PM Pathology/Biology
2:00 PM	-	3:45 PM Anthropology
2:00 PM	-	3:45 PM Digital & Multimedia Sciences
2:00 PM	-	3:45 PM Engineering & Applied Sciences
2:00 PM	-	3:45 PM General
2:00 PM	-	3:45 PM Jurisprudence
2:00 PM	-	3:45 PM Odontology
2:00 PM	-	3:45 PM Psychiatry & Behavioral Science
2:00 PM	-	3:45 PM Questioned Documents
2:00 PM	-	3:45 PM Toxicology

All times are in the U.S. Mountain 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 21, at 4:15 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 2024-25 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 2025 AAFS Annual Scientific Conference in Baltimore, MD.

FINANCIAL CONTRIBUTORS

The American Academy of Forensic Sciences would like to thank the following for their contribution to the 76th Annual Scientific Conference:

GOLD SPONSOR



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 on the meeting Registration Form. CE Credit Request Forms will be available on the AAFS website. The completed forms must be returned to AAFS by the designated deadline.

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 44.75 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 44.75 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.

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.

DIVERSITY AND INCLUSION IN FORENSIC SCIENCE FORUM AND RECEPTION

Open to All Meeting Registrants

Tuesday, February 20, 2024

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.

Check back for speaker information.

MENTORSHIP PROGRAM BREAKFAST

Pre-Registration Encouraged

Wednesday, February 21, 2024

7:30 AM – 8:30 PM

The 2024 Mentorship Program Breakfast is for those who expressed an interest when registering for the conference. This breakfast will bring together those mentees and mentors who are willing to help guide personal growth within the individual AAFS sections.

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

STUDENT ACADEMY

Pre-Registration Required (\$25/Person)

Tuesday, February 20, 2024

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

Co-Chair:

Ginesse A. Listi, PhD

Louisiana State University
Baton Rouge, LA

Faculty:

Anthropology

Lauren R. Pharr Parks, PhD

Memphis, TN

Odontology:

Lillian A. Nawrocki, DDS

Orlando, FL

Pathology/Biology:

J.C.U. Downs, MD

forensiX, LLC

Savannah, GA

Criminalistics:

Kelly Knight, MS

George Mason University

Fairfax, VA

Psychiatry & Behavioral Science:

Emily D. Gottfried, PhD

Medical University of South Carolina

Charleston, SC

Digital & Multimedia Sciences:

Douglas Lacey, MS

BEK TEK LLC

Stafford, VA

Questioned Documents:

Cami Fuglsby, BS

South Dakota State University

Brookings, SD

Engineering & Applied Sciences:

Roy Crawford, BSME

R.R. Crawford Engineering, Inc.

Whitesburg, KY

Toxicology:

George F. Jackson, PhD

NJ Office of the Chief State Medical Examiner

Burlington Township, NJ

Forensic Nursing Science

TBD

General:

Natalie M. Borgan, MS

Flat Rock, MI

Ashraf Mozayani, PhD

Texas Southern University

Houston, TX

Jurisprudence:

M.J. Menendez, JD

Center For Science Res & Ed

Willow Grove, PA

STUDENT ACADEMY

Program:

9:00 AM - 9:10 AM	Introduction <i>Lynn A. Schneeweis, MS</i>
9:10 AM - 9:20 AM	Welcome <i>C. Ken Williams, MS, JD</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>J.C.U. Downs, MD</i>
	Anthropology <i>Lauren R. Pharr Parks, PhD</i>
	Odontology <i>Lilliiian A. Nawrocki, DDS</i>
	Toxicology <i>George Jackson, PhD; Ashraf Mozayani, PhD</i>
	Digital & Multimedia Sciences <i>Douglas Lacey, BS, MS</i>
	Forensic Nursing Science <i>TBD</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 Knight, MS</i>
	Questioned Documents <i>Cami Fuglsby, BS</i>
	Engineering & Applied Sciences <i>Roy Crawford, BSME</i>
	Psychiatry & Behavioral Science <i>Emily D. Gottfried, PhD</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 20, 2024

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:

Josh Brunty, ScD

Marshall University
Huntington, WV

Commissioner:

Sarah Seashols Williams, PhD

Virginia Commonwealth University
Richmond, VA

Commissioner:

Thomas Brettell, PhD

Cedar Crest College
Allentown, PA

Commissioner:

A. Karl Larsen, PhD

University of Illinois, Chicago
Chicago, IL

Commissioner:

Jason L. Schroeder, MS

Harris County Institute of Forensic Science
Houston, TX

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 one-day 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 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 academic programs have successfully completed the accreditation process since 2003. Additional information on FEPAC can be found on the FEPAC website: <https://www.aafs.org/FEPAC>.

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>Sarah Seashols Williams, 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>Josh Brunty, ScD</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>Jason L. Schroeder, MS</i>
12:15 PM - 12:45 PM	Questions and Answers <i>FEPAC Commissioners and Accreditation Coordinator</i>

YOUNG FORENSIC SCIENTISTS FORUM

Open to All Meeting Registrants—Pre-Registration Encouraged

S1 Oh, the Places You'll Go! Exploring the Paths to Justice for All

Tuesday, February 20, 2024

8:00 AM – 5:00 PM

CE Hours: 6.75

YFSF Chair:

Emily Rue, PhD

Chemist/Forensic Examiner

U.S. Army Criminal Investigation Division

Atlanta, GA

Presenters:

Joe Adserias Garriga, DDS, PhD

Assistant Professor

Department of Applied Forensic Sciences

Mercyhurst University

Erie, PA

Deirdre Amaro, MD

Chief Medical Examiner

Boone/Callaway County Medical

Examiner's Office

Columbia, MO

Jeremy Boone, MS

Sr. Field Application Scientist-HID

Thermo Fisher Scientific

Moseley, VA

Claire Cartozzo, PhD

DNA Analyst

Worldwide Counter Threat Solutions

Louisa, VA

Anna S. Duggar, PhD

Director of Forensic Chemistry

Assistant Professor

Loyola University New Orleans

New Orleans, LA

Davette Gadison, MA

Doctoral Candidate

Tulane University

Bangkok, Krung Thep, THAILAND

Beth S. Goodspeed, MS

Forensic Scientist IV

MA State Police Crime Laboratory

Bellingham, MA

Krystal R. Hans, PhD

Assistant Professor

Purdue University

West Lafayette, IN

Cheryl Hunter

Membership Coordinator

AAFS

Colorado Springs, CO

Alex J. Krotulski, PhD

Associate Director

CFSRE

Abington, PA

Katarzyna Michaud, MD

Senior Lectures and Privat-Docent

University of Lausanne

University Hospital in Lausanne

Lausanne, Vaud, SWITZERLAND

Marilyn Miller, EdD

Emeritus Professor

Virginia Commonwealth University

Chesterfield, VA

Michelle R. Peace, PhD

Professor

Virginia Commonwealth University

Richmond, VA

Dayla Rich, PhD

Forensic Chemist II

Union County Sheriff's Office

Monroe, NC

M. Gabriela Roca, PhD

Scientific Affair Coordinator

SERATEC mbH,

Goettingen, Niedersachsen, GERMANY

Christopher Thompson, MD

AAFS President-Elect

Associate Clinical Professor of Psychiatry

David Geffen School of Medicine at UCLA

Los Angeles, CA

Dirk M. Vastrick, BA

Owner, Dirk Vastrick Presents

Spokane Valley, WA

C. Ken Williams, MS, JD

AAFS President

Assistant Chief Forensic Scientist

NJSP Office of Forensic Sciences

Hamilton, NJ

Program Description: 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 play a unique role in promoting justice for all and advancing the field.

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

YOUNG FORENSIC SCIENTISTS FORUM

S1 Oh, the Places You'll Go! Exploring the Paths to Justice for All

Program Description cont.:

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 play 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.

Program:

8:00 AM - 8:20 AM	Introduction to the YFSF <i>Emily Rue, PhD</i>
8:20 AM - 8:40 AM	Membership in AAFS <i>Cheryl Hunter</i>
8:40 AM - 9:00 AM	My Journey to Justice for All <i>C. Ken Williams, MS, JD</i>
9:00 AM - 9:20 AM	Careers in Forensic Psychiatry <i>Christopher Thompson, MD</i>
9:20 AM - 9:40 AM	Investigating Forensics: Making a Case for Forensic Entomology as a Career <i>Krystal R. Hans, PhD</i>
9:40 AM - 10:00 AM	Forensic Pathology: In the Flesh <i>Deirdre Amaro, MD</i>
10:00 AM - 10:15 AM	BREAK
10:15 AM - 10:35 AM	Careers in Forensic Science Are Not All Created Equal—What Are the Options for a Young Scientist? <i>Alex J. Krotulski, PhD</i>
10:35 AM - 10:55 AM	Career Path of a Forensic Scientist: A Realistic Approach <i>Joe Adserias Garriga, DDS, PhD</i>
10:55 AM - 11:15 AM	Is Artificial Intelligence (AI) the Answer to Getting Hired Faster (and Better)? <i>Dirk M. Vastrick, BA</i>
11:15 AM - 11:55 AM	Resume Review Workshop <i>Dirk M. Vastrick, BA</i>
11:55 AM - 1:00 PM	BREAK
1:00 PM - 1:20 PM	From Fungi to Crime Scenes: A Lot of Places to Go and Learn! <i>M. Gabriela Roca, PhD</i>
1:20 PM - 1:40 PM	Life of a Forensic Scientist <i>Beth S. Goodspeed, MS</i>
1:40 PM - 2:00 PM	The Unbeaten Path: Making Unconventional Career Choices <i>Anna S. Duggar, PhD</i>

YOUNG FORENSIC SCIENTISTS FORUM

S1 Oh, the Places You'll Go! Exploring the Paths to Justice for All

Program cont.:

2:00 PM - 2:20 PM	Application of Forensic Sciences in International Settings <i>Davette Gadison, MA</i>
2:20 PM - 2:40 PM	The Heart and Justice <i>Katarzyna Michaud, MD</i>
2:40 PM - 2:55 PM	BREAK
2:55 PM - 3:15 PM	The Role of a Field Application Scientist <i>Jeremy Boone, MS</i>
3:15 PM - 3:35 PM	A Scientist at the Crime Scene? <i>Marilyn Miller, EdD</i>
3:35 PM - 3:55 PM	Visit Other Silos, Cross-Over Boundaries, and Break-Through Ceilings <i>Michelle R. Peace, PhD</i>
3:55 PM - 4:55 PM	Flash Mentoring/Mixer Session <i>Michelle R. Peace, PhD</i>
4:55 PM - 5:00 PM	Closing of the YFSF Special Session <i>Dayla Rich, PhD</i>

INTERDISCIPLINARY SYMPOSIUM

Open to All Meeting Registrants—Pre-Registration Encouraged

S2 With Liberty and Justice for All: The Role of Forensic Science in Truth and Fairness

Tuesday, February 20, 2024

1:00 PM – 5:00 PM

CE Hours: 3.5

Chair:

Jessica Volz, DNP

Clinical Director of Forensics
Adventist HealthCare
Shady Grove Medical Center,
Rockville, MD

Co-Chair:

Adam Freeman, DDS

Forensic Odontologist
Westport, CT
Brunswick, MD

Presenters:

Patrick Buzzini, PhD

Professor
Sam Houston State University
Huntsville, TX

Michelle D. Miranda, PhD

Associate Professor & Acting Director
The Center for Criminal Justice Studies
Farmingdale State College [SUNY]
Farmingdale, NY

Sarah P. Chu, MS

Director of Policy and Reform
Perlmutter Center for Legal Justice
New York, NY

Antonel Olckers, PhD

President, African Forensic Sciences Academy (AFSA)
CEO, DNAbiotec (Pty) Ltd,
Pretoria, Gauteng, SOUTH AFRICA

Bernice B. Donald, JD

Judge (Retired)
Resolute Systems LLC
Eads, TN

Iain Pretty, BDS, PhD

Forensic Consultant
Manchester Science Park
Manchester, England, UNITED KINGDOM

Keith Inman, MCrim

Associate Professor
Cal State East Bay
Hayward, CA

Claude Roux, PhD

Director, UTS Centre for Forensic Science
President, International Association of Forensic Sciences
University of Technology Sydney
Ultimo, New South Wales, AUSTRALIA

Program Description: This half-day Interdisciplinary Symposium will discuss the influence of forensic science on the concept of Justice for All. Presentations on forensic science's foundational principles, ethics, and evolving definitions will be explored through an in-depth discussion of the Sydney Declaration. The importance of scientific rigor and the role of truthful and transparent application of forensic science knowledge in ensuring the preservation of fair and just judicial and humanitarian outcomes will be highlighted by presenters discussing the innocence work and wrongful convictions. The last half of the symposium will be focused on understanding similarities and differences in the past and current real-world application and role of forensic sciences to the justice system in the United States, the United Kingdom, and South Africa/Africa. The aspiration of working toward a world where there is Justice for All is in the hearts of many forensic scientists. This presentation will discuss the application of forensic science to the basic human right of access to justice and open discussion about the future of the intersection of societal needs, science, and law.

Educational Objectives: Upon completion of this workshop, attendees will: (1) articulate the basic principles outlined in the Sydney Declaration and describe its significance; (2) discuss reasons why scientific rigor and truthful, transparent application of science in forensic disciplines is critical to ensuring justice; and (3) explain some of the similarities and differences in the application of forensic sciences to justice in the United States, United Kingdom, Australia, and South Africa/Africa.

INTERDISCIPLINARY SYMPOSIUM

S2 With Liberty and Justice for All: The Role of Forensic Science in Truth and Fairness

Program:

1:00 PM – 1:45 PM	The Sydney Declaration: The Essence of Forensic Science
1:45 PM – 2:15 PM	Open Discussion of the Sydney Declaration
2:15 PM – 2:30 PM	BREAK
2:30 PM – 3:15 PM	The Innocence Project: The Role of Scientific Rigor, Transparency, and Integrity in Justice
3:15 PM – 4:00 PM	Questions and Answers About the Innocence Project
4:00 PM – 4:15 PM	BREAK
4:15 PM – 5:00 PM	Panel Discussion: The Role, Ethical Considerations, and Application of the Forensic Sciences in the Justice System: The United States, the United Kingdom, Australia, and South Africa/Africa

KEYNOTE ADDRESS

Open to All Meeting Registrants

Wednesday, February 21, 2024

8:30 AM – 9:30 AM



Bryan Stevenson

Montgomery, AL

Bryan Stevenson is the founder and Executive Director of the Equal Justice Initiative (EJI), a human rights organization in Montgomery, AL. Under his leadership, EJI has won major legal challenges eliminating excessive and unfair sentencing, exonerating innocent death row prisoners, confronting abuse of the incarcerated and the mentally ill, and aiding children prosecuted as adults. He is a graduate of the Harvard Law School and the Harvard School of Government.

Mr. Stevenson has argued and won multiple cases at the United States Supreme Court, including a 2019 ruling protecting condemned prisoners who suffer from dementia and a landmark 2012 ruling that banned mandatory life-imprisonment-without-parole sentences for all children 17 or younger. Mr. Stevenson and his staff have won reversals, relief, or release from prison for over 135 wrongly condemned prisoners on death row and won relief for hundreds of others wrongly convicted or unfairly sentenced.

Mr. Stevenson has initiated major new anti-poverty and anti-discrimination efforts that challenge inequality in America. He led the creation of two highly acclaimed cultural sites that opened in 2018: the Legacy Museum and the National Memorial for Peace and Justice. These new national landmark institutions chronicle the legacy of slavery, lynching, and racial segregation, and the connection to mass incarceration and contemporary issues of racial bias.

Mr. Stevenson's work has won him numerous awards and he has received over 40 honorary doctoral degrees, including degrees from Harvard, Yale, Princeton, the University of Pennsylvania, and Oxford University. He is the author of the critically acclaimed *New York Times* bestseller, *Just Mercy*, which was named by *Time Magazine* as one of the 10 Best Books of Nonfiction for 2014 and has been awarded several honors, including the American Library Association's Carnegie Medal for best nonfiction book of 2015 and a 2015 NAACP Image Award. *Just Mercy* was recently adapted as a major motion picture. AAFS will present a free screening of the film on Sunday, February 18, at 7:00 PM.

PLENARY SESSION

Open to All Meeting Registrants

Wednesday, February 21, 2024

10:00 AM – 11:30 AM

CE Hours: 1.5

Welcoming Remarks



The Intersection of Science and Justice: Does Forensic Science Have a Role in Ensuring Justice for All?

C. Ken Williams, JD, MS

President

American Academy of Forensic Sciences

Cherry Hill, NJ

Plenary Session Chair:

Vincent J. Desiderio, Jr., MS

U.S. Postal Inspection Service

Lovettsville, VA

Plenary Session Co-Chair:

Dean De Crisce, MD

Psychiatrist, Special Treatment Unit

Elizabeth, NJ

Speakers

Hon. Bernice Donald, JD

Federal Judge (retired)

Memphis, TN

Tiffany Roy, JD, MSFS

Forensic DNA Analyst

ForensicAid

West Palm Beach, FL

Sarah Chu, PhD

Innocence Project

New York, NY

Adele Quigley-McBride, PhD

Wilson Center for Science and Justice

Duke Law

Durham, NC

John Butler, PhD

National Institute of Standards and Technology

Gaithersburg, MD

Overview: Science, as a general discipline, is the practice of using systematic, rigorous observation, experimentation, and testing of theory-based hypotheses in environments over which the scientist has some control or can control for in their analyses. Though “science” is often used to describe a vocation, it is actually a philosophy. Science is a way of thinking, answering questions, and building an understanding of the world and the things and people in it. Forensic science, as a subdiscipline of general science, is broadly defined as the application of science to matters of the law. The tasks undertaken by forensic scientists incorporate many features seen in other types of science (i.e., practitioners must obtain and analyze evidence, interpret results, and provide critical information to support or refute hypotheses); however, there are some notable differences.

As opposed to most conventional scientific endeavors, in which debates over hypotheses and conclusions occur between scientists themselves and primarily in the academic realm, the practices of forensic science operate in a unique arena in which results are routinely presented to non-scientists (e.g., law enforcement professionals and triers of fact), with some cases finding their way into courts of law. This requires forensic scientists to navigate the differing interests, values, and/or needs of law enforcement, the legal community, public safety, individual liberty, and public perception all within an adversarial legal system staffed by professionals with varying degrees of scientific literacy.

Complicating matters further, forensic work, although typically performed under the direction and auspices of law enforcement and prosecutorial agencies, may also be performed under the direction of defense counsel or other agencies, lending an inherent view that forensic practices are biased. Although there are an increasing number of so called “independent” forensic laboratories, experts, or organizations, many of these entities still operate within a government structure which, although less direct, may still be subject to certain subjective pressures providing the appearance of bias.

PLENARY SESSION

Open to All Meeting Registrants

The Intersection of Science and Justice: Does Forensic Science Have a Role in Ensuring Justice for All?

Overview cont.

Scientists and forensic experts should strive for impartiality and objectivity at all times. Ideally, they should be the most objective component in any legal system as they must adhere to the facts, and present only information and opinions supported by a thorough scientific analysis of evidential data and/or a methodical consideration of information empirically demonstrated in the literature. Beyond the traditional forensic setting, some would hold that the scientist's role should remain the same, with an impartial view of the world and opinions limited to matters strictly in accordance with scientific or legal inquiry. Others, however, view the scientist's role as one that should go beyond this setting, into the public domain, where their objective pursuits of the truth could lend expertise toward improving matters of social significance.

"Justice for All," as a mantra, is a pervasive societal theme with a significant presence in both the forensic and legal realms, as any individual accused of committing a crime is entitled to due process in the same manner as any other individual, regardless of demographics. This theme, however, is more often associated with philosophical discussion within legal circles, rather than matters of scientific significance. The purpose of this session will be to examine the concept of "Justice for All" from the perspective of the forensic scientist, with the goal of elucidating what role, if any, the forensic scientist may play toward ensuring fairness within the larger legal context.

Some of the questions to be discussed during this session include: Does forensic science play a role in ensuring "justice for all"?; Do forensic scientists have an obligation in this matter and, if so, to what extent?; What measures are being taken to ensure forensic science produces equitable results?; And, what further work needs to be done to bring forensic sciences closer to these goals?

Program:

10:00 AM - 10:10 AM	Welcome and Opening Remarks <i>C. Ken Williams, JD, MS; Vincent J. Desiderio, Jr.; MS, Dean De Crisce, MD</i>
10:10 AM - 10:40 AM	Individual Panelist Statements <i>Hon. Bernice Donald, JD; Tiffany Roy, JD; Sarah Chu, PhD; Adele Quigley-McBride, PhD; John Butler, PhD</i>
10:40 AM - 11:00 AM	Panel Discussion Part I: Moderated Questions <i>Hon. Bernice Donald, JD; Tiffany Roy, JD; Sarah Chu, PhD; Adele Quigley-McBride, PhD; John Butler, PhD</i>
11:00 AM - 11:25 AM	Panel Discussion Part II: Questions from the Audience <i>Hon. Bernice Donald, JD; Tiffany Roy, JD; Sarah Chu, PhD; Adele Quigley-McBride, PhD; John Butler, PhD</i>
11:25 AM - 11:30 AM	Closing Remarks <i>C. Ken Williams, JD; MS, Vincent J. Desiderio, Jr.; MS, Dean De Crise, MD</i>

JUSTICE TALKS CASE BREAK SESSIONS

CB1 The Boundaries of Judicial Discretion in Admitting Forensic Scientific and Technical Evidence

Tuesday, February 20, 2024

7:15 AM – 8:15 AM

CE Hour: 1.0

Stephanie Domitrovich, JD, PhD
Senior Judge
Administrative Office of PA Courts
Erie, PA

Milton Nuzum III, JD
Former Judge
Vincent, OH

Program Description: In this presentation, Judge Stephanie Domitrovich and former Judge Milt Nuzum will facilitate an interactive dialog with the session attendees as they examine a series of cases and scenarios that test the limits of a trial judge’s judicial discretion in admitting scientific and technical forensic evidence. Attendees will analyze a series of scenarios based on actual cases and place themselves in the role of a trial judge in making decisions on admissibility of the evidence in each scenario.

Educational Objectives: The goals of this presentation are: (1) to examine a series of cases and scenarios that test the limits of a trial judge’s judicial discretion in admitting scientific and technical forensic evidence; and (2) to help attendees understand the Rules of Evidence and relevant case law that establish the guidelines a trial judge must follow in making critical decisions on the admissibility of scientific and technical forensic evidence.

Impact on the Forensic Science Community: Attendees will analyze a series of scenarios based on actual cases and place themselves in the role of a trial judge in making decisions on the admissibility of the evidence in each scenario. This dynamic presentation will impact the forensic science community by enabling prosecutors, defense attorneys, judges, and expert witnesses to be prepared to successfully face the scrutiny of the court when seeking admissibility of scientific and technical forensic evidence in cases where the outcome likely hinges on the testimony of an expert witness.

JUSTICE TALKS CASE BREAK SESSIONS

CB2 Xylazine—An Emerging Cause of Death in Correctional Institutions

Tuesday, February 20, 2024

8:30 AM – 9:30 AM

CE Hour: 1.0

Marie E. Lasater, MD

Coroner

Texas County Government

Licking, MO

Program Description: The unregulated veterinary drug xylazine is emerging as a cause of death in state correctional facilities. Unlike the drug fentanyl, there is no antidote. The origins and toxicity of the drug are discussed and illustrated with a case study of an offender death due to xylazine mixed with fentanyl.

Educational objectives: The goals of this presentation are to: (1) identify physical symptoms of xylazine use, (2) identify treatment for xylazine overdose, and (3) obtain proper toxicology samples in case of fatal overdose.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by informing attendees that the importance of recognizing signs/symptoms of xylazine use cannot be overstated. As an emerging drug, xylazine is not always included in basic forensic panels, so expanded testing is recommended. Xylazine has no approved antidote for humans. It is NOT a federally controlled substance, so has the propensity to be easily obtained.

JUSTICE TALKS CASE BREAK SESSIONS

CB3 **Vacuous Accreditation: The Illusion of Quality in Forensic Science**

Wednesday, February 21, 2024

7:15 AM – 8:15 AM

CE Hour: 1.0

Tiffany A. Roy, JD, MSFS

Forensic DNA Expert
ForensicAid, LLC
West Palm Beach, FL

Kimberly S. Kunkler, PhD

Assistant Professor
Marshall University
Huntington, WV

Program Description: This presentation will call attention to gaps in the quality oversight structure by questioning the current perceptions of forensic laboratory accreditation, highlighting its strengths and limitations, providing specific examples of where failures have occurred, and discussing potential opportunities for improvement.

Educational Objectives: This presentation is intended to highlight common misconceptions regarding accreditation and quality assurance in United States forensic laboratories. Accreditation is often misdescribed by practitioners and misunderstood by judges and juries. As a result of participation in this presentation, attendees will gain a clearer understanding of the role of forensic laboratory accreditation in the United States, including its strengths and limitations.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by fostering discussion about what meaningful and effective forensic science oversight would look like in the United States and why current accreditation frameworks are insufficient to ensure production of accurate and reliable forensic results. This presentation will draw the attention of justice partners to the need for statutory oversight of forensic science on the state and federal level in the image of the Texas Commission on Forensic Science.

JUSTICE TALKS CASE BREAK SESSIONS

CB4 2023 State Legislative Encroachments Against Forensic Pathology Professionalism and Independence: Harbingers of Future Threats and the Opportunity for Strategic Planning and Action

Thursday, February 22, 2024

7:15 AM – 8:15 AM

CE Hour: 1.0

M.J. Menendez, JD

Senior Fellow/General Counsel
CFSRE
Willow Grove, PA

Joyce L. deJong, DO

Professor and Chair
Department of Pathology
Western Michigan University
Homer Stryker M.D. School of Medicine
Kalamazoo, MI

Program Description: In 2023, the independence of forensic pathology in the context of Medicolegal Death Investigations (MDI) was directly attacked by the introduction of various state legislative proposals and bills passed into law. These legislative proposals and laws erode the ability of forensic pathologists to maintain impartiality and objectivity, mandate particular findings on death certificates, and allow non-physicians to perform autopsies. The cause for alarm is heightened by the apparent lack of scientific and medical underpinnings in the bills and laws. This program will address threats to the independence and neutrality of MDI and the medical practice of forensic pathology.

Educational Objectives: After attending this presentation, attendees will understand the importance of monitoring and evaluating state legislative proposals through a prioritized, anticipatory process. Vigilance in monitoring is warranted due to the recent uptick in legislative proposals and passed bills that dictate processes and outcomes in MDIs. The information obtained by attendees will enable proactive and informed responses to proposed legislation that encroaches on the independence of forensic pathology and MDI.

Impact on the Forensic Science Community: This presentation impacts the forensic science community by exposing threats to the independence and neutrality of MDI and the medical practice of forensic pathology and by encouraging forward-leaning responses to ward off such threats.

JUSTICE TALKS CASE BREAK SESSIONS

CB5 Protecting the Innocent: The Urgent Need to Research When, and Under What Circumstances, DNA Evidence Can Lead to Wrongful Convictions

Friday, February 23, 2024

7:15 AM – 8:15 AM

CE Hour: 1.0

J.D. Schmid, JD

Public Defender

Sixth District Public Defender's Office

Duluth, MN

Program Description: This presentation will address how two recent trends in forensic DNA analysis require stakeholders to re-evaluate the power of DNA evidence to accurately distinguish the guilty from the innocent. First, courts must learn to account for the increased sensitivity of current DNA testing methods and the ensuing risk that DNA recovered from a crime-scene is unrelated to the crime. Second, courts must learn to account for the increased use of probabilistic genotyping software programs and common misunderstandings about the meaning and limitations of the subsample likelihood ratios generated by such programs. Research exploring how each of these trends impacts stakeholders' abilities to distinguish the guilty from the innocent is urgently needed to prevent wrongful convictions.

Educational Objectives: The goal of this presentation is to explore the urgent need to further research how recent technological advancements in forensic DNA analysis are impacting the administration of justice in the American criminal court system.

Impact on the Forensic Science Community: Several members of the forensic science community have either: (1) identified common misunderstandings about likelihood ratios among lay people, or (2) recognized the impact of highly sensitive testing methods on the detection of irrelevant DNA at a crime scene. The materials discussed in this presentation will impact the forensic science community by hopefully providing empirical guidance to practitioners and decision makers in cases where the presentation of subsample likelihood ratio could lead to a wrongful conviction. This presentation will also hopefully encourage researchers with technical expertise and resources to study whether existing procedural safeguards are sufficient to protect innocent defendants faced with incriminating DNA evidence.

JUSTICE TALKS CASE BREAK SESSIONS

CB6 New Jersey's Top 10 Most Wanted: Anthony Mota Apprehended

Saturday, February 24, 2024

8:00 AM – 9:00 AM

CE Hour: 1.0

Anna W. Delaney, MA

Forensic Anthropologist
New Jersey State Police
Hamilton, NJ

Program Description: This presentation will cover how the New Jersey State Police Fugitive Unit, New Jersey State Police Office of Forensic Sciences Forensic Anthropology Unit, and the United States Marshal's Office were able to locate and close one of New Jersey's Top 10 Most Wanted cases—the case of Anthony Mota. Even in death, we strive to resolve and provide closure and justice to our victims and their families.

Educational Objectives: After attending this presentation, attendees will understand how to execute an international exhumation, gain knowledge of the valuable resources that the United States Marshal's Office can provide for assistance in cases, learn what samples provide the best DNA results, and the importance of documentation throughout a complex case.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by bridging the gap between international agencies working to achieve the same goals, demonstrating how to work collaboratively with multiple agencies across domestic and international jurisdictions, and informing attendees of the resources available from federal agencies.

JUSTICE TALKS CASE BREAK SESSIONS

CB7 **Operation Death Harvester: How the FBI Is Dismembering the Illegal Trade in Human Body Parts**

Saturday, February 24, 2024

9:15 AM – 10:15 AM

CE Hour: 1.0

Paul Micah Johnson, PhD

Special Agent

Federal Bureau of Investigation

Detroit, MI

Program Description: This presentation is a case review of the largest human body parts industry investigation in the Federal Bureau of Investigation (FBI) history. Death Harvester was opened by the author as an organized crime case in the Detroit Field Office in 2011. Its purpose was to investigate the illegal sale of human remains for research and education that was taking place through a network of anatomical supply companies. What started with the finding of severed heads in a rusty van ultimately resulted in the seizing of thousands of human remains across the country, the closure of four body donation programs, the arrest and conviction of seven individuals, and the identification, cremation, and return of human remains to hundreds of victim families.

Educational Objectives: This presentation will help the attendee to better understand the global trade in human remains for research and education, the common crimes associated with the trade, what has been, and can still be, done to stop the illegal activity, and the roles that forensic science professionals can play.

Impact on the Forensic Science Community: The expertise of forensic pathologists and forensic anthropologists is regularly needed in criminal investigations of the human body parts trade, as are the skills of fingerprint examiners and a range of DNA specialists. Having a broad understanding of this industry and its common crimes will better prepare these forensic science professionals to assist with ongoing efforts to stem some of the rampant illegality. Additionally, this presentation will impact the forensic science community by helping all attendees to have a better understanding of the risks associated with donating one's body to science.

JUSTICE TALKS CASE BREAK SESSIONS

CB8 Online Child Exploitation: Proactive Law Enforcement Strategies

Saturday, February 24, 2024

10:30 AM – 11:30 AM

CE Hour: 1.0

Paul C. Graf, MS

Independent Consultant of Child Abuse Legal Matters
Sr. Special Agent, NCIS (Retired)
Castle Rock, CO

Program Description: Under any other circumstances, a child sex offender would have to approach a child and converse, which is a much more difficult hurdle in terms of circumstance, intellectual capability, and social functioning. Online communication has dispensed with much of the social skills and verbal communication required to seduce a child, which may have deterred some offenders, and given them direct access to children, many of whom are on-line with little or no adult/parent supervision. In response to this crisis, law enforcement has adopted a number of proactive strategies to enforce child-protective criminal statutes. Those statutes, the communication elements of the internet, and the development of law enforcement efforts in this field will be discussed.

Educational Objectives: After attending this presentation, attendees will: (1) learn what conduct on the part of individuals expressing a sexual interest in children is illegal, and what conduct, though possibly objectionable, is protected by United States Constitutionally guaranteed freedoms; (2) learn to identify the various communication elements of the internet; (3) be able to understand how persons expressing a sexual interest in children make use of the various communication components of the internet to contact both persons who share similar interests and potential child victims; and (4) be introduced to several proactive techniques used by law enforcement, and the technology that makes them possible, to target and investigate criminal child sex offenders online.

Impact on the Forensic Science Community: Federal statutes prohibit the possession of graphic Child Sexual Abuse Materials (CSAM), the distribution of CSAM images by any means, including computer, the buying and selling of children for the purpose of producing CSAM images, and interstate or foreign travel with the intent to engage in a sexual act with a child. Law enforcement's proactive investigations often involve undercover communication with individuals who display a sexual interest in children; they document exchanges of illegal CSAM and rely heavily on face-to-face undercover meetings. This presentation will impact the forensic science community by delineating what conduct is and is not prohibited by federal and various state laws. A discussion of proactive law enforcement methods will be presented, as well as an explanation of the internet and its communication media components, such as the World Wide Web (WWW), the Dark Web, online gaming platforms, Internet Relay Chat (IRC), chat rooms, newsgroups, and file servers, all with case examples.

LUNCHEON SEMINARS

Pre-Registration Required — \$85

LS1 W.W.G.D. (What Would Gibbs Do?): The Real Work of NCIS Special Agents

Thursday, February 22, 2024

12:00 PM – 1:30 PM

CE Hours:

Paul C. Graf, MS

Independent Consultant of Child Abuse Legal Matters

Sr. Special Agent, NCIS (Retired)

Castle Rock, CO

Program Description: The duties and responsibilities of a Naval Criminal Investigative Service (NCIS) Special Agent, along with real case examples, will be discussed through the lens of the real-life Jethro Gibbs.

Educational Objectives: After attending this presentation, attendees will be familiar with the duties and responsibilities of NCIS Special Agents and understand the similarities, and the many differences, between the *NCIS* television shows and “real life” NCIS work.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by developing awareness of the critical missions of NCIS Special Agents and their role in federal law enforcement.

When this presenter, Paul C. Graf, began his career with the US Naval Investigative Service (NIS), he often said it took well over 20 minutes to tell someone who he worked for and why he was asking so many questions. Now, and since the advent of the wildly popular CBS Television series *NCIS* and its offshoot programs (*NCIS Los Angeles*, *NCIS New Orleans*, *NCIS Hawaii*) the re-named Naval Criminal Investigative Service (NCIS) has become a household word. That said, many viewers still believe it to be a fictional agency and are surprised to hear the presenter spent 33 years conducting criminal, counter-intelligence, counter-terrorism and espionage as a Senior Special Agent of NCIS (aka: The Real Gibbs) Mr. Graf was assigned to offices in Long Beach, CA, Naples, Italy, Newport, RI, Brunswick, ME, and Guantanamo Bay, Cuba. His duties included narcotics investigation, grand larceny, sabotage, espionage, Double Agent Operations, homicide, arson, rape, procurement fraud, cold case homicide, and child abuse investigations, his specialty. In his role as an Executive Protection Supervisor, he led teams of armed Agents who protected military and civilian VIP’s and world leaders, worldwide. Mr. Graf conducted NCIS investigations and operations in 26 countries of the world. Therefore, the duties and responsibilities of an NCIS Special Agent, as seen through the lens of his extensive career, along with real case examples, will be discussed. The Forensic Science Community will, thus, develop an awareness of the critical missions of NCIS Special Agents and their role in Federal Law Enforcement.

LUNCHEON SEMINARS

Pre-Registration Required — \$85

LS2 **Getting Things Started With a Bang: Interpreting Gunshot Sounds in Audio Forensic Analysis**

Thursday, February 22, 2024

12:00 PM – 1:30 PM

CE Hours:

Robert C. Maher, PhD, PEng

Professor

Montana State University

Bozeman, MT

Program Description: This presentation begins with the historical background of gunshot audio interpretation, then provides several fascinating case studies of the current state-of-the art, demonstrating how gunfire sounds can provide essential forensic information. Attendees will learn the essential physical principles of how firearms make sounds and how those sounds are affected by the recording location and the recording system. At the conclusion of the seminar, attendees will understand how to interpret audio waveforms and spectrograms from gunshot audio recordings and how to apply their new knowledge to examples and case studies.

Educational Objectives: After attending this presentation, attendees will: (1) understand the basic physical principles of how firearms make sound and how gunshot sounds propagate through the air to the microphone; (2) have viewed waveforms and spectrograms of gunshot sounds, identifying the key features and important details; (3) understand how to interpret and knowledgeably discuss the strengths and weaknesses of various sources of gunshot audio recordings; (4) understand the basic features of contemporary gunshot detection and location systems, such as ShotSpotter™ from SoundThinking, Inc.; and (5) recognize the proper steps in handling user-generated audio evidence in forensic investigations.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by introducing the attendees to gunshot audio forensic examination.

LUNCHEON SEMINARS

Pre-Registration Required — \$85

LS3 Human Spaceflight Medicolegal Death Investigations

Friday, February 23, 2024

12:00 PM – 1:30 PM

CE Hours:

Edward Mazuchowski, MD, PhD

Forensic Pathologist

Forensic Pathology Associates

Division of HNL Lab Medicine

Allentown, PA

Program Description: This presentation will give an overview of the phases of human spaceflight and the unique challenges each phase presents. Past fatal mishaps will be reviewed. The current applicable protocols in regard to human spaceflight medicolegal death investigations, current knowledge gaps, and future challenges to these investigations will be discussed.

Educational Objectives: Upon completion of this workshop, attendees should be able to describe the phases of spaceflight and the unique challenges these phases present during a spaceflight death investigation.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing a historical overview of human spaceflight medicolegal death investigations and an overview of current knowledge gaps and challenges for these investigations.

LUNCHEON SEMINARS

Pre-Registration Required — \$85

LS4 **There Is No I in TEAM: The Importance of Leadership, Personal Accountability, and Personality Type in High Stress Work Environments**

Friday, February 23, 2024

12:00 PM – 1:30 PM

CE Hours:

Charla Skinner Perdue, MFS

Teaching Faculty II & UG Public Safety & Security Program Coordinator

Florida State University

Panama City Campus

Panama City, FL

Program Description: This presentation's goal is to show the importance of the role each person plays in high stress, collaborative work groups that make up many of the various positions in the fields of forensic science. High stress work environments are where the substance of the work is difficult, there is increased pressure to be right, and heavy caseloads and rapid pace take a toll on both mental and physical health. Reducing the stress on the team improves the work culture for everyone.

There is no I in TEAM, but the argument can be made that there should be. The only person whose decisions and actions we can control is ourselves. We will take a quick 11-question multiple choice quiz to determine personality color and then explore how understanding ourselves and just as importantly, how others perceive us, can lead to better workplace interactions, reduce errors and improve the overall quality of our work and our agency culture.

Educational objectives: At the completion of this luncheon presentation, attendees will be able to: (1) identify their personality color by completing a short 11-question multiple choice quiz; (2) recognize the characteristics of their personality color and how they may be perceived by others; (3) discuss the importance of using personality color to improve communication; (4) examine studies related to secondary trauma in high stress work environments; (5) relate the concept of stress in the workplace to noise and errors; (6) describe the physical and mental effects of the high stress workplace, both primary and secondary; (7) discern the role one plays in challenging work situations; (8) evaluate the importance of leadership; and (9) explore ways to leverage the team's talents.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by highlighting the benefits of knowing the individual's personality color and the color of those they work with. It will include a brief 11-question multiple choice quiz to identify their personality color, to better understand how others perceive them and consider studies and techniques from the field of sociology to improve how they interact with others. We will examine the importance of leadership as a tool to enhance the workplace culture and how a positive work environment may even reduce errors. By understanding the only person whose decisions and actions we can control is ourselves we can endeavor to improve our high stress work environment for ourselves and everyone on the team.

WORKSHOPS

Pre-Registration Required—\$225

W1 Recommendations From the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation

Monday, February 19, 2024

8:30 AM – 5:00 PM

CE Hours: 6.5

Program Description: In this workshop, we will walk participants through the National Institute of Standards and Technology (NIST)/National Institute of Justice (NIJ) Expert Working Group on Human Factors in Forensic DNA Interpretation Working Group process and highlight key findings, discuss some of the more controversial topics, and present implementation steps for the recommendations contained within the report.

Educational Objectives: Upon completion of this workshop, participants will be familiar with the recommendations in the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation report. They will know the implications of these recommendations for their own practice and how the recommendations serve to improve the practice of DNA examination.

Participants will be invited to discuss how relevant and feasible the recommendations are to their own practice and to the wider forensic DNA community.

Impact Statement: The study of human factors in forensic science is an essential element to inform our understanding of the interaction between humans and the systems they use. In understanding human factor issues, we can identify and address the potential for error and bias. Furthermore, we can develop ways to shape positive laboratory culture, improve staff morale, and increase work productivity. This workshop presents three years' worth of effort to understand human factors as they apply to forensic DNA interpretation. This effort provides guidance to DNA analysts, laboratory management, and legal practitioners on how to improve practice for safer justice outcomes.

Target Audience: Criminalistics, Jurisprudence

Knowledge Level Required: Basic

Chair:

Jarrah Kennedy, MSFS
Kansas City Police Crime Lab
Kansas City, MO

Britton Morin, MSFS
Laboratory Director
Union County Prosecutor's Office
Forensic Laboratory
Westfield, NJ

Melissa Taylor, BA
Sr. Forensic Science Research Manager
National Institute of Standards
and Technology
Gaithersburg, MD

Co-Chair:

Angela Spessard, MSFS
Forensic Scientist III
Maryland State Police
Pikesville, MD

Nikola Osborne, PhD
Forensic Research Scientist
National Institute of Standards
and Technology (Contractor)
Auckland, NEW ZEALAND

Hope Zagaria, MSFS
Research Forensic Social Scientist
RTI International
Alexandria, VA

Presenters:

Mikalaa M. Martin, BS
Forensic Scientist
RTI International
Greenville, SC

Tiffany Roy, JD, MSFS
Forensic DNA Expert
ForensicAid, LLC
West Palm Beach, FL

WORKSHOPS

W1 Recommendations From the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation

Program:

- 8:30 AM – 9:00 AM **Participant and Facilitator Introductions**
Melissa Taylor, BA
- 9:00 AM – 9:30 AM **Introduction to the NIST/NIJ Expert Working Group Series**
Melissa Taylor, BA
- 9:30 AM – 10:00 AM **Introduction to Key Concepts Used Throughout the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation Report**
Nikola Osborne, PhD; Mikalaa M. Martin, BS
- 10:00 AM – 10:30 AM **Management and Work Environment**
Britton Morin, MSFS
- 10:30 AM – 10:45 AM **BREAK**
- 10:45 AM – 11:20 AM **Interpretation and Technology**
Hope Zagaria, MSFS; Angela Spessard, MFS
- 11:20 AM – 12:00 PM **Quantitative and Qualitative Expressions of DNA Results**
Nikola Osborne, PhD; Tiffany Roy, JD, MSFS
- 12:00 PM – 1:00 PM **BREAK**
- 1:00 PM – 2:00 PM **Reporting and Testimony**
Tiffany Roy, JD, MSFS; Hope Zagaria, MSFS
- 2:00 PM – 3:00 PM **Interpretation of DNA Results Considered Alleged Activities**
Nikola Osborne, PhD; Tiffany Roy, JD, MSFS
- 3:00 PM – 3:15 PM **BREAK**
- 3:15 PM – 4:15 PM **Education, Training, and Professional Credentialing**
Angela Spessard, MSFS
- 4:15 PM – 5:00 PM **Final Thoughts**
All Presenters

WORKSHOPS

Pre-Registration Required—\$225

W2 Get Fired Up for Improvements to Fire Debris Standards! (Overview, Use, and Implementation of the Major Revisions to ASTM E1618)

Monday, February 19, 2024

8:30 AM – 5:00 PM

CE Hours: 6.75

Program Description: Attendees of this workshop will receive information and training on major revisions to the American Society for Testing and Materials (ASTM) E1618. Presenters will discuss why the revisions are needed, explain the new specifications for the ignitable liquid classification system, provide an overview of the performance-driven instrumental analysis requirements, and facilitate implementation of the new interpretation and reporting requirements through practical exercises. Intended as an introductory workshop, attendees will gain experience using these new specifications for classification of ignitable liquids and a practical understanding of how the updated requirements can reduce misattribution or misidentification of ignitable liquids in complex matrix samples.

Educational Objectives: After completing this workshop, attendees will: (1) be familiar with the major revisions currently being made to ASTM E1618-19 Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography-Mass Spectrometry; (2) understand the potential impact of the revisions on their laboratory's standard operating procedures; and (3) have basic experience in utilization of some of the revisions through completion of practical, hands-on exercises.

Impact Statement: The major revisions to ASTM E1618-19 provide additional information that is designed to clarify its requirements and improve consistency of its use in fire debris analysis. This workshop will impact the forensic science community's practice by providing orientation and training related to implementation of the major revisions to ASTM E1618.

Target Audience: Criminalistics, Jurisprudence

Knowledge Level Required: Basic

Chair:

Brenda B. Christy, MS

Forensic Scientist Supervisor

Virginia Department of Forensic Science

Norfolk, VA

Co-Chair:

Laura J. Hernandez, BS

Director, Verity Labs Inc.

Las Cruces, NM

Presenter:

Kimberly S. Kunkler, PhD

Assistant Professor

Marshall University

Huntington, WV

Program:

8:30 AM – 8:45 AM **Introductions, Workshop Design, and End Goals**

Kimberly S. Kunkler, PhD

8:45 AM – 9:30 AM **Historical Background and Overview of Revisions**

Laura J. Hernandez, BS

9:30 AM – 9:50 AM **GC/MS: Method Development and Optimization**

Laura J. Hernandez, BS

9:50 AM – 10:15 AM **GC/MS: Philosophical Foundations for Performance-Based Requirements**

Brenda B. Christy, MS

10:15 AM – 10:30 AM **BREAK**

10:30 AM – 11:15 AM **QA/QC: Validation and Verification**

Kimberly S. Kunkler, PhD

WORKSHOPS

W2 Get Fired Up for Improvements to Fire Debris Standards! (Overview, Use, and Implementation of the Major Revisions to ASTM E1618)

Program continued:

- 11:15 AM – 11:45 AM **Overview of Classification**
Laura J. Hernandez, BS
- 11:45 AM – 12:45 PM **BREAK**
- 12:45 PM – 1:30 PM **Identification Criteria**
Brenda B. Christy, MS
- 1:30 PM – 2:30 PM **Interpretation Requirements**
Brenda B. Christy, MS; Laura J. Hernandez, BS; Kimberly S. Kunkler, PhD
- 2:30 PM – 2:45 PM **BREAK**
- 2:45 PM – 4:45 PM **Practical Exercise—Complex Case Sample**
Brenda B. Christy, MS; Laura J. Hernandez, BS; Kimberly S. Kunkler, PhD
- 4:45 PM – 5:00 PM **Summary**
Brenda B. Christy, MS; Laura J. Hernandez, BS; Kimberly S. Kunkler, PhD

WORKSHOPS

Pre-Registration Required—\$225

W3 Machine Learning-Powered SpectrApp: An Open-Source Tool for Analyzing Forensic Spectroscopic Data

Monday, February 19, 2024

8:30 AM – 5:00 PM

CE Hours: 5.5

Program Description: Discover SpectrApp (<https://www.spectrapp.unito.it>), an innovative open-source tool developed by the esteemed Department of Chemistry at the University of Turin. Join us for an immersive workshop that showcases SpectrApp's cutting-edge capabilities in forensic spectroscopic data analysis. This user-friendly tool combines advanced machine learning techniques with a seamless interface, catering to both experts and non-experts in the field. Participants will delve into the power of SpectrApp's multivariate data analysis and chemometric strategies, facilitated by the R Shiny environment. Explore a vast array of graphical approaches, including univariate, bivariate, and multivariate visualizations, uncovering intricate patterns within complex datasets. Learn about SpectrApp's support for cluster analysis, Principal Component Analysis (PCA), and other advanced methodologies, such as PLS-Discriminant Analysis (PLS-DA) and PLS-Regression (PLS-R). Witness how SpectrApp enables the prediction of new samples, empowering forensic analysis like never before. Don't miss this enlightening workshop that showcases the potential of SpectrApp to revolutionize the future of forensic science through machine learning and data analysis.

Educational Objectives: Upon completion of this workshop, attendees will be able to: (1) familiarize themselves with SpectrApp; (2) utilize multivariate data analysis; (3) master chemometric strategies; (4) navigate graphical approaches; (5) apply PLS-DA and PLS-R; (6) predict new samples; (7) promote machine learning integration; and (8) advance forensic data exploration.

Impact on the Forensic Science Community: The session on SpectrApp will have a profound impact on the forensic science community by introducing a transformative tool that leverages Machine Learning for spectroscopic data analysis. Participants will gain invaluable insights and practical skills to navigate the complexities of forensic data, propelling them towards more accurate and efficient analyses. The workshop's educational objectives emphasize the integration of cutting-edge techniques, such as multivariate data analysis and chemometric strategies, enabling forensic experts to extract meaningful information from intricate datasets.

By empowering both experts and non-experts with the user-friendly interface of SpectrApp, the workshop aims to democratize advanced data analysis in forensic science. This accessibility will promote broader adoption and foster a culture of collaboration and knowledge-sharing within the community.

Target Audience: Digital & Multimedia Sciences, General

Knowledge Level Required: Basic

Chair:

Eugenio Alladio, PhD

Assistant Professor

Department of Chemistry

University of Torino

Torino, Piemonte, ITALY

Co-Chair:

Paolo Garofano, MD, PhD

COO

Centro Regionale Antidoping "A. Bertinaria"

Lazio, Rome, ITALY

WORKSHOPS

W3 Machine Learning-Powered SpectrApp: An Open-Source Tool for Analyzing Forensic Spectroscopic Data

Program:

8:30 AM – 9:00 AM	Session Introduction <i>Paolo Garofano, MD, PhD</i>
9:00 AM – 9:30 AM	Familiarizing Participants With SpectrApp <i>Paolo Garofano, MD, PhD</i>
9:30 AM – 10:30 AM	Multivariate Data Analysis and Chemometric Strategies <i>Eugenio Alladio, PhD</i>
10:30 AM – 11:00 AM	BREAK
11:00 AM – 12:30 PM	Graphical Approaches and Data Visualization Strategies <i>Eugenio Alladio, PhD</i>
12:30 PM – 1:30 PM	BREAK
1:30 PM – 3:00 PM	Supervised Regression Modeling <i>Eugenio Alladio, PhD</i>
3:00 PM – 3:30 PM	BREAK
3:30 PM – 4:00 PM	Supervised Regression Modeling <i>Eugenio Alladio, PhD</i>
4:00 PM – 4:30 PM	Questions and Answers/Discussion <i>Paolo Garofano, MD, PhD</i>
4:30 PM – 5:00 PM	Closing Remarks <i>Paolo Garofano, MD, PhD</i>

WORKSHOPS

Pre-Registration Required—\$225

W4 Inside the Black Box: Forensic Psychiatry for Lawyers 2.0

Tuesday, February 20, 2024

8:30 AM – 4:30 PM

CE Hours: 6.25

Program Description: This workshop will cover the history of forensic psychiatry, the use and types of experts, and the clinical and ethical guidelines followed. We will discuss the crucial differences between a treating clinician and an expert, the use and misuse of psychological testing, and the application of case law and statutes to appropriately answer psychiatric-legal questions. The workshop will be interactive with case debates prepared by the presenters and invited submissions from attendants. The workshop is designed to help inform attorneys how to work more effectively with mental health experts, as well as confidently navigate the ethical waters when doing so.

Educational Objectives: This workshop will help attendees: (1) have an expanded understanding of mental illness; (2) learn how to effectively utilize an expert psychiatric witness in criminal and civil cases; (3) understand the difference between appropriate and inappropriate consult questions for the expert; (4) learn about unethical expert witnesses, how to spot them, why to avoid them, and effectively crossing them; and (5) understand the ethical obligations of an expert witness and anticipate when these can conflict with an attorney's ethical duties.

Impact on the Forensic Science Community: This workshop will have a positive impact in terms of helping attorneys work more effectively and ethically with experts in the mental health field. The skill and knowledge acquired will also help inform members of the forensic mental health field to avoid some of the pitfalls that can occur in the midst of complex legal cases. Some of the ethical issues examined will be generalizable to other expert witnesses.

Target Audience: Jurisprudence, Psychiatry & Behavioral Science

Knowledge Level Required: Basic

Chair:

Corina Freitas, MD
Forensic Psychiatrist
Freitas and Associates LLC
Alexandria, VA

Co-Chair:

Vivian Shnaidman, MD
Forensic Psychiatrist
Jersey Forensic Consulting
Princeton, NJ

Presenter:

George D. Annas, MD, MPH
Forensic Psychiatrist
Forensic Psychiatry Consulting, LLC
Syracuse, NY

Program:

8:30 AM – 9:30 AM	Introduction to Psychiatry and Forensic Psychiatry <i>Corina Freitas, MD</i>
9:30 AM – 11:30 AM	How to Formulate a Psychiatric-Legal Question <i>Vivian Shnaidman, MD</i>
11:30 AM – 12:30 PM	BREAK
12:30 PM – 2:30 PM	Forensic Psychiatry Topics <i>Corina Freitas, MD; Vivian Shnaidman, MD; George D. Annas, MD, MPH</i>
2:30 PM – 2:45 PM	BREAK
2:45 PM – 4:00 PM	Active Case Participation <i>Corina Freitas, MD; Vivian Shnaidman, MD; George D. Annas, MD, MPH</i>
4:00 PM – 4:30 PM	Questions and Answers/Discussion

WORKSHOPS

Pre-Registration Required—\$225

W5 Forensic Postmortem Radiology and Medicolegal Death Investigations

Monday, February 19, 2024

8:30 AM – 5:00 PM

CE Hours: 6.75

Program Description: This workshop is an update on current practices in forensic postmortem radiology and medicolegal death investigations. National and international forensic pathology and radiology practitioners will provide an introduction to and update on best practices in the field.

Educational Objectives: After attending this workshop, attendees will: (1) be informed of the different modalities for postmortem radiology; (2) understand the strengths and weaknesses of the different current modalities; (3) learn about the interpretation of the postmortem radiology scans and levels of forensic evidence; and (4) be aware of current advances, collaboration, and potential resources available to interested practitioners.

Impact on the Forensic Science Community: 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, General, Pathology/Biology

Knowledge Level Required: Basic

Chair:

Summer J. Decker, PhD

Professor, Director of 3D Clinical Applications & Vice Chair of Radiology
Department of Radiology
University of South Florida
Tampa, FL

Co-Chair:

Edward Mazuchowski, MD, PhD

Forensic Pathologist
Forensic Pathology Associates
Division of HNL Lab Medicine
Allentown, PA

Presenters:

Natalie L. Adolphi, PhD

Associate Professor
New Mexico Medical Investigator Office
Albuquerque, NM

Fabrice Dedouit, MD, PhD

Forensic Pathologist
Hopital Rangueil
Toulouse, Midi-Pyrenees, FRANCE

Lars Ebert, PhD

3D Center Department Co-Head
Institute for Forensic Medicine
University of Zürich
Zürich, SWITZERLAND

Jamie Elifritz, MD

Forensic Radiologist
New Mexico Medical Investigator Office
Albuquerque, NM

Jonathan M. Ford, PhD

Associate Professor
Department of Radiology
University of South Florida
Tampa, FL

Michael J. Thali, MD

Professor and Chair
Institute of Forensic Medicine
University of Zurich
Zürich, SWITZERLAND

Program:

8:30 AM – 8:45 AM	Introductions and Overview <i>Edward Mazuchowski, MD, PhD; Summer J. Decker, PhD</i>
8:45 AM – 9:15 AM	Forensic Imaging Modalities: Basic Principles and Interpretation <i>Jamie Elifritz, MD</i>
9:15 AM – 9:45 AM	Natural Disease, Postmortem Changes and Artifacts <i>Jamie Elifritz, MD</i>
9:45 AM – 10:15 AM	Cardiac Imaging and Postmortem Angiography <i>Fabrice Dedouit, MD, PhD</i>
10:15 AM – 10:30 AM	BREAK

WORKSHOPS

W5 Forensic Postmortem Radiology and Medicolegal Death Investigations

Program continued:

- 10:30 AM – 11:30 AM **Traumatic Injuries and Overdoses**
Edward Mazuchowski, MD, PhD
- 11:30 AM – 12:30 PM **Interactive Cases**
All Presenters
- 12:30 PM – 1:30 PM **BREAK**
- 1:30 PM – 2:00 PM **Postmortem Imaging: International Perspective**
Michael J. Thali, MD
- 2:00 PM – 2:30 PM **3D Visualization and Court Presentation**
Summer J. Decker, PhD
- 2:30 PM – 3:00 PM **Emerging Technologies in Forensic Imaging**
Jonathan M. Ford, PhD; Lars Ebert, PhD
- 3:00 PM – 3:15 PM **BREAK**
- 3:15 PM – 3:45 PM **Interactive Cases**
All Presenters
- 3:45 PM – 4:15 PM **Development of a Forensic Imaging Service in a Medical Examiner Office**
Natalie L. Adolphi, PhD
- 4:15 PM – 5:00 PM **Panel Discussion With Audience Participation**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W6 Don't Know Much About Standards: Incorporating Forensic Science Standards Into University Curricula

Monday, February 19, 2024

8:30 AM – 12:30 PM

CE Hours: 3.75

Program Description: During this presentation, representatives from universities and the Forensic Science Education Programs Commission (FEPAC) will present on ways they have incorporated standards into their university programs, examples of specific courses where students' knowledge has been enhanced by such standards, and how to overcome obstacles of changing curriculum to include private sector standards. Representatives from forensic laboratories will present on how hiring practitioners with a knowledge of standards affects their practices, as well as how they are implementing standards into lab training and standard operating procedures. The latter portion of the workshop will be comprised of a panel, including educators, lab managers, young forensic professionals, and recent university graduates, to discuss how forensic standards are changing, and will continue to change, the landscape of forensic education and training.

Educational Objectives: After attending this presentation, attendees will have a better understanding of how incorporating standards in an educational curriculum affects students' understanding of the discipline and forensic sciences when they enter post-graduate employment.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by creating greater awareness of how standards are currently being implemented in university level educational programs, and how lab managers have both incorporated standards into their training, and how they use standards for minimum qualifications and education of practitioners.

Target Audience: All Disciplines

Knowledge Level Required: Basic

Chair:

Heidi Eldridge, PhD

Professor

The George Washington University
Washington, DC

A. Karl Larsen, Jr., PhD

Clinical Professor of Forensic Science

University of Illinois at Chicago

Chicago, IL

Sarah Seashols Williams, PhD

Associate Professor

Virginia Commonwealth University

Richmond, VA

Co-Chair:

Julie A. Howe, MBA

Associate Professor

Saint Louis University

Saint Louis, MO

Jennifer Limoges, MS

Associate Director of Forensic Science/

Toxicology

New York State Police

Albany, NY

Britni Skillman, PhD

Assistant Professor

Sam Houston State University

Huntsville, TX

Presenters:

Teresa L. Ambrosius, BA

Secretariat

AAFS Standards Board

Colorado Springs, CO

Arely J. Parra López, BS

Graduate Student Researcher

The George Washington University

Eaton, CO

Peter Stout, PhD

President and CEO

Houston Forensic Science Center

Houston, TX

McKenzie Weyh, BS

Forensic Document Examiner

Michigan State Police

Lansing, MI

WORKSHOPS

W6 Don't Know Much About Standards: Incorporating Forensic Science Standards Into University Curricula

Program:

- 8:30 AM – 8:45 AM **Another Brick in the Wall: An Introduction and History of Standards in Education**
Teresa L. Ambrosius, BA
- 8:45 AM – 9:15 AM **The Beatings Will Continue Until Morale Improves: How to Teach Standards Without Making Students Hate You**
Heidi Eldridge, PhD
- 9:15 AM – 9:45 AM **This Seems So Easy, But It Is All So Important**
A. Karl Larsen, Jr., PhD
- 9:45 AM – 10:15 AM **Making Forensic Science Standards a Curriculum-Wide Standard Practice**
Sarah Seashols Williams, PhD
- 10:15 AM – 10:30 AM **BREAK**
- 10:30 AM – 11:00 AM **On to the Real World: How University Forensic Standards Education Benefits the Laboratory**
Jennifer Limoges, MS
- 11:00 AM – 11:30 AM **Standards and Accreditation as Seen by the Wild-Eyed Heretic in Houston**
Peter Stout, PhD
- 11:30 AM – 12:30 PM **Panel Discussion/Questions and Answers**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W7 Emerging Semi-Synthetic Cannabinoids: THC Isomers and Analogs

Monday, February 19, 2024

8:30 AM – 12:30 PM

CE Hours: 3.75

Program Description: This workshop will address the growing semi-synthetic cannabinoid market from both a toxicological and a seized drug chemistry perspective. It will provide an overview of the legislation and scheduling of THC-related compounds in the United States, discuss drug trends in semi-synthetic cannabinoids in both Europe and the United States, and review analytical methods for the separation of THC isomers in seized drug material. This workshop will also focus on the known pharmacological activity and potency of currently available semi-synthetic cannabinoids, provide reviews of cross-reactivity of the cannabinoid isomers and analogs on the commercially available immunoassay platform, and describe analytical methods for isomer separation in toxicological samples. Finally, delta-8-THC blood concentrations and trends in the Driving Under the Influence of Drugs (DUID) cohort will be presented.

Educational Objectives: After attending this presentation, attendees will be familiar with semi-synthetic cannabinoids such as delta-8-THC, THC-P, HHC, etc., their appearance in various cannabis-containing products, their potency, and their legality. Additionally, attendees will understand analytical challenges associated with these newly emerging THC isomers and analogs and how to resolve chromatographic interferences.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing a legal, pharmacological, and analytical overview of emerging semi-synthetic cannabinoid products.

Target Audience: Criminalistics, General, Toxicology

Knowledge Level Required: Basic

Chair:

Ayako Chan-Hosokawa, MS
Toxicology Team Manager
NMS Labs,
Horsham, PA

Co-Chair:

Sarah A. Shuda, MS
Senior Scientist
CFSRE
Willow Grove, PA

Presenters:

Joanna De Morais
Scientific Analyst
EMCDDA
Lisbon, PORTUGAL

Barry K. Logan, PhD
Executive Director
CFSRE
Horsham, PA

Nicole Lattanzio, MS

Forensic Chemistry Technical Director
NMS Labs
Willow Grove, PA

Erin Karschner, PhD

Forensic Toxicologist
Armed Forces Medical Examiner System
Dover AFB, DE

WORKSHOPS

W7 Emerging Semi-Synthetic Cannabinoids: THC Isomers and Analogs

Program:

- 8:30 AM – 9:00 AM **THC Legislation and Scheduling in the United States**
Barry K. Logan, PhD
- 9:00 AM – 9:30 AM **Seized Drug Trends and Results**
Nicole Lattanzio, MS
- 9:30 AM – 10:15 AM **European Perspectives on Semi-Synthetic Cannabinoids—Virtual Presentation**
Joanna De Morais
- 10:15 AM – 10:30 AM **BREAK**
- 10:30 AM – 11:10 AM **Quantitative Analytical Methods Used in Seized Drug Materials**
Sarah A. Shuda, MS
- 11:10 AM – 11:40 AM **Overview: Potency and Pharmacological Activity of THC Analogs**
Erin Karschner, PhD
- 11:40 AM – 12:10 PM **Toxicology Analytical Methods and Trends**
Ayako Chan-Hosokawa, MS
- 12:10 PM – 12:30 PM **Questions and Answers**

WORKSHOPS

Pre-Registration Required—\$125

W8 Non-Fatal Strangulation: An Update on Practice and Current Literature

Monday, February 19, 2024

8:30 AM – 12:30 PM

CE Hours: 3.5

Program Description: “He only choked me...” Anoxic brain injury can occur in minutes. Nonfatal strangulation and its associated effects are not well understood by responding providers. This 4-hour workshop provides a background in research and enhances skills in evaluating nonfatal strangulation. This potential lethal act is present in more cases than one thinks. The workshop presenters plan discussions around how the current evidence impacts the investigation, documentation, care, and prosecution of strangulation cases. Long-term effects such as traumatic brain injury are now being studied with current information to be discussed. Key concepts will be illustrated through the use of case studies and group discussion.

Impact on the Forensic Science Community: Many disciplines who investigate, provide care, or prosecute cases where nonfatal strangulation is a component benefit from understanding this topic. Investigators and crime scene personnel will be able to better recognize and investigate this potentially lethal act. Health care providers must properly assess and treat those who have experienced strangulation. Finally, prosecutors must develop knowledge about how to charge and prosecute for this action and to effectively use the expert witness to convey the significance that strangulation has on the victim.

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

Knowledge Level Required: Intermediate

Chair:

Stacey A. Mitchell, DNP

Clinical Professor and Director

Texas A&M University School of Nursing

Magnolia, TX

Presenters:

Sean P. Dugan, MD

Director of Forensic Services

Shasta Community Forensic Care Team

Shasta Community Health Center

Redding, CA

Patricia M. Speck, DNSc

Professor/Coordinator of Advanced

Forensic Nursing

University of Alabama at Birmingham

School of Nursing

Hoover, AL

Co-Chair:

Kathy Bell, MS

Adjunct Faculty

Oklahoma State University

Center for Health Sciences

Tulsa, OK

Diana A. Faugno, MSN

Forensic Nurse

AFN

Escondido, CA

Jessica Volz, DNP

Clinical Director of Forensics

Adventist HealthCare

Shady Grove Medical Center

Rockville, MD

Program:

8:30 AM – 8:45 AM

Introduction and Welcome

Diana A. Faugno, MSN; Patricia M. Speck, DNSc

8:45 AM – 9:05 AM

Strangulation Refresher

Kathy Bell, MS

9:05 AM – 9:35 AM

Review of Strangulation Data: How One Program Is Addressing the Issue

Jessica Volz, DNP

9:35 AM – 10:20 AM

Strangulation Literature Review

Stacey A. Mitchell, DNP; Kathy Bell, MS

10:20 AM – 10:30 AM

BREAK

10:30 AM – 11:00 AM

Long-Term Effects of Strangulation

Sean P. Dugan, MD

11:00 AM – 12:00 PM

Assessment and Documentation

Sean P. Dugan, MD

12:00 PM – 12:30 PM

Analysis of Case Studies

Val Sievers

WORKSHOPS

Pre-Registration Required—\$125

W9 The Requirements and Implementation of ANSI/ASB Standard 123—Standard for Routine Internal Evaluation of a Laboratory’s DNA Interpretation and Comparison Protocol: Laboratory and Legal Perspectives

Monday, February 19, 2024

1:00 PM – 5:00 PM

CE Hours: 3.5

Program Description: Several studies conducted over the past 20 years have demonstrated the inconsistent use of the interpretation and comparison protocols within some DNA testing laboratories as well as variability in the reporting of results and conclusions, especially when complex DNA profiles were evaluated that fell outside of the types of profiles routinely evaluated during mandatory proficiency testing. A standard, drafted by the Organization of Scientific Area Committees (OSAC) and developed by the Academy Standards Board (ASB), provides for the continued monitoring of the efficacy and consistent use of the laboratory’s protocol. This workshop will focus on the specific requirements of Standard 123 and provide effective mechanisms for implementation of the standard, including the evaluation of the resulting data to ensure quality interpretation and comparison of DNA data. DNA analysts and attorneys will provide insights regarding the importance of and value added through the implementation of this standard.

Educational Objectives: After attending this workshop, attendees will have a heightened understanding of: (1) the need to monitor the efficacy and consistency of use of the laboratory DNA interpretation and comparison protocols; (2) the specific requirements of Standard 123 and how to implement the standard in a DNA testing laboratory effectively in conjunction with other relevant DNA standards; (3) how to assess the results of the internal evaluation process with appropriate corrective actions; and (4) the legal perspective regarding the consistent use of high-quality interpretation and comparison protocols prior to- and post-conviction and how that may help to provide “Justice for All.” The attendees will have the opportunity to network with the speakers and other attendees while discussing implementation options.

Impact on the Forensic Science Community: This workshop will impact the forensic science community and the “Justice for All” initiative by providing information to laboratory staff, attorneys, and judges regarding the value of performing an annual review of the forensic science service provider’s interpretation and comparison protocols. Guidance for monitoring and evaluating the consistency of use and suitability of the protocol within a DNA laboratory via implementation of the ANSI/ASB Standard 123, Standard for Routine Internal Evaluation of the Laboratory’s DNA Interpretation and Comparison Protocol, and its possible effect on the judicial system will be the main focus of this workshop.

Target Audience: Criminalistics, Jurisprudence

Knowledge Level Required: Basic

Chair:

Charlotte Word, PhD
Consultant
Richmond, VA

Presenters:

Brian Higgins, MSFS
Supervisory Biologist
USACIL
Forest Park, GA

Terri Rosenblatt, JD

Chief, Post Conviction Justice Unit
New York County District
Attorney’s Office
New York, NY

Co-Chair:

Virginia Barron, JD
Attorney, Law Office
Westbrook, MN

Ashley Luther, MS

Forensic Biology Supervisor
Indiana State Police Laboratory
Indianapolis, IN

WORKSHOPS

W9 The Requirements and Implementation of ANSI/ASB Standard 123—Standard for Routine Internal Evaluation of a Laboratory’s DNA Interpretation and Comparison Protocol: Laboratory and Legal Perspectives

Program:

- 1:00 PM – 1:15 PM **Welcome and Opening Remarks**
Charlotte Word, PhD; Virginia Barron, JD
- 1:15 PM – 1:35 PM **Historical Perspective and Necessity for Implementation of Standard 123**
Charlotte Word, PhD
- 1:35 PM – 2:05 PM **Requirements in Standard 123**
Brian Higgins, MSFS
- 2:05 PM – 2:25 PM **How Standard 123 Helps Better Ensure Justice For All in the Judicial System—A Legal Perspective**
Virginia Barron, JD
- 2:25 PM – 2:40 PM **BREAK**
- 2:40 PM – 3:30 PM **Internal Evaluation and Background for Standard 123**
Ashley Luther, MS
- 3:30 PM – 3:55 PM **Thoughts on Implementation in a Laboratory Based on the Requirements**
Brian Higgins, MSFS
- 3:55 PM – 4:25 PM **Informing the Future and Revisiting the Past**
Ashley Luther, MS
- 4:25 PM – 4:45 PM **Legal Perspective—Standards and Post-Conviction Issues**
Terri Rosenblatt, JD
- 4:45 PM – 5:00 PM **Wrap-Up and Discussion**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W10 Evolving Approaches and Technologies to Address Existing Challenges in Seized Drug Analysis

Monday, February 19, 2024

1:00 PM – 4:30 PM

CE Hours: 3.0

Program Description: Challenges with the analysis of seized drugs have necessitated research into alternative approaches and technologies to assist forensic laboratories with the identification and quantification of unknown seized drugs. These challenges include the rapidly evolving nature of the seized drug landscape, with the continued emergence of Novel Psychoactive Substances (NPS), the identification of closely related chemical substances, the detection of minor components in mixtures, the differentiation of hemp and marijuana, screening of multiple subunits, and growing backlogs. However, there is a considerable divide between the research community developing these alternative approaches and technologies and actual implementation by practicing forensic laboratories. The Evolving Approaches and Technologies for Seized Drug Analysis subcommittee was established to specifically address this divide by the Forensic Laboratory Needs Technology Working Group (FLN-TWG), which is housed at the National Institute of Justice (NIJ) and supported by the Forensic Technology Center of Excellence (FTCOE) through a cooperative agreement with RTI International.

Educational Objectives: After attending this workshop, attendees will have learned about readily implementable evolving approaches and technologies to address existing challenges in seized drug analysis. The attendees will learn about emerging technologies, such as Direct Analysis in Real Time-Mass Spectrometry (DART®-MS), gas chromatography-vapor-phase infrared spectroscopy (GC-VIR), Gas Chromatography-Vacuum Ultraviolet spectroscopy (GC-VUV), and Ultra-High Performance Liquid Chromatography-Photo Diode Array Ultraviolet single quadrupole Mass Spectrometry (UHPLC-PDA UV-MS). In addition, attendees will also learn about evolving approaches, such as microcrystal tests and the analysis of marijuana and marijuana products.

Impact on the Forensic Science Community: This workshop will impact the forensic science community by providing chemists, section leaders, and laboratory managers with the necessary information to determine which evolving approach or technology may be most appropriate to address their specific laboratory needs. Aspects such as the approximate cost, analysis time, capabilities, limitations, and specific challenges that each approach or technology can help address will be provided. Informing the seized drug community about the strengths and limitations of the identified evolving approaches and technologies will better prepare forensic laboratories to make informed decisions about how to combat their specific challenges in seized drug analysis.

Target Audience: Criminalistics, General

Knowledge Level Required: Basic

Chair:

J. Tyler Davidson, PhD
Assistant Professor
Sam Houston State University
Conroe, TX

Co-Chair:

Edward Sisco, PhD
Research Chemist
National Institute of Standards
and Technology
Gaithersburg, MD

Presenters:

Amber K. Burns, MS
Forensic Chemistry Manager
Maryland State Police
Forensic Sciences Division
Pikesville, MD

Ira Lurie, PhD
Adjunct Professor/Research Professor
The George Washington University
Washington, DC

Frances Scott, PhD

Program Manager
National Institute of Justice
Washington, DC

Sherri L. Tupik, BS

Senior Forensic Chemist
Drug Enforcement Administration
Dulles, VA

WORKSHOPS

W10 Evolving Approaches and Technologies to Address Existing Challenges in Seized Drug Analysis

Program:

- 1:00 PM – 1:15 PM **Welcome and Introduction**
J. Tyler Davidson, PhD
- 1:15 PM – 1:45 PM **Direct Analysis in Real Time-Mass Spectrometry (DART®-MS)**
Edward Sisco, PhD
- 1:45 PM – 2:15 PM **Gas Chromatography-Vapor-Phase Infrared Spectroscopy (GC-VIR)**
Sherri L. Tupik, BS
- 2:15 PM – 2:30 PM **Gas Chromatography-Vacuum Ultraviolet Spectroscopy (GC-VUV)**
Ira Lurie, PhD
- 2:30 PM – 2:45 PM **BREAK**
- 2:45 PM – 3:15 PM **Ultra-High Performance Liquid Chromatography-Photo Diode Array/Ultraviolet/Single Quadrupole Mass Spectrometry (UHPLC-PDA/UV/MS)**
Ira Lurie, PhD
- 3:15 PM – 4:00 PM **Microcrystal Tests**
Frances Scott, PhD
- 4:00 PM – 4:30 PM **Marijuana and Marijuana Products**
Frances Scott, PhD; Amber K. Burns, MS

WORKSHOPS

Pre-Registration Required—\$125

W11 Police Officers Injured in the Line of Duty: The Role of Peer Support in Recovery

Monday, February 19, 2024

1:00 PM – 4:30 PM

CE Hours: 3.0

Program Description: This presentation will provide an overview of the of circumstances that led up to the wounding of New York police officers and the challenges that they faced and still endure. We will engage in an interactive discussion with these officers and learn how they faced aspects of their physical and psychological recovery and the role other factors played in their seeking help such as individual characteristics, the availability of peer support, stigma, family, and social support, gratitude, resilience, and satisfaction with life. Special focus will be given to a traumatic brain injury caused by firearm. This workshop will discuss topics requiring basic knowledge pertaining to brain anatomy, brain function and cognitive and psychological effects of Traumatic Brain Injury (TBI).

Educational Objectives: After attending this workshop, attendees will: (1) better understand the experiences of police officers who have been severely injured in the line of duty; (2) build skills to identify the many challenges one can face while recovering from a TBI caused by a gunshot wound to the head; (3) be made aware of the physical damaged caused by a Gunshot Wound (GSW) to the head; (4) appreciate the effects of TBI on cognitive and psychological assessment protocols; (5) be informed about the current empirical research and literature on peer assistance programs, peer support, and peer-facilitated interventions for police officers; and (6) have a better understanding of the role social support, gratitude, resilience, and satisfaction with life have on recovery.

Impact on the Forensic Science Community: Presentations in this workshop will impact the forensic science community through detailed accounts of police officers who were injured in the line of duty. Through their first-hand accounts, these officers will discuss their road to recovery and associated psychological sequela and its impact on their families. The forensic science community was previously introduced to the one of the officers (LCJ) through a presentation at the 75th AAFS Annual Scientific Conference. This workshop will provide the most up-to-date information on the role, responsibilities, and best practices associated with a Peer Support Program.

Target Audience: General, Psychiatry & Behavioral Science

Knowledge Level Required: Basic

Chair:

Gregory I. Mack, PhD

Deputy Director
Psychological Evaluation Section
Medical Division
New York City Police Department
Shrub Oak, NY

Co-Chair:

Daniel A. Martell, PhD

Clinical Faculty
UCLA School of Medicine
Irvine, CA

Presenters:

Jamie M. Elifritz, MD

Partner/Medical Director
Forensic Radiology Group
Department of Radiology
University of New Mexico
Albuquerque, NM

Matthew Frank

Chairman/Co-Founder
Westchester B.L.U.E. Foundation
Port Chester, NY

Learie C. Johnston, BA

Board of Directors/Detective (*retired*)
Westchester B.L.U.E. Foundation/Mount
Vernon Police Department
Mount Vernon, NY

Paul Puccini

Trustee, Board of Directors
Westchester B.L.U.E. Foundation
New Rochelle, NY

WORKSHOPS

W11 Police Officers Injured in the Line of Duty: The Role of Peer Support in Recovery

Program:

- 1:00 PM – 1:10 PM **Welcome to the Workshop/Introduction**
Gregory I. Mack, PhD; Daniel A. Martell, PhD
- 1:10 PM – 1:30 PM **Police Officers Injured in the Line Of Duty: A Clear and Present Danger**
Gregory I. Mack, PhD
- 1:30 PM – 2:45 PM **Case Review: An Analysis of the Facts, the Injuries, and the Recovery**
Learie C. Johnston, BA; Matthew Frank, Paul Puccini; Gregory I Mack, PhD
- 2:45 PM – 3:00 PM **BREAK**
- 3:00 PM – 3:25 PM **Prevalence of Traumatic Brain Injury and Comorbid Disorders Among First Responders**
Gregory I. Mack, PhD
- 3:25 PM – 3:50 PM **Forensic Interpretation of Medical Images**
Jamie Elifritz, MD
- 3:50 PM – 4:15 PM **Police Peer Support Programs: A Moral and Ethical Duty of Care**
Learie C. Johnston, BA; Matthew Frank, Paul Puccini; Gregory I Mack, PhD
- 4:15 PM – 4:30 PM **Discussion/Questions**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W12 Reading the Blueprint to Construct the Framework: Demystifying Forensic Accreditation

Monday, February 19, 2024

1:00 PM – 5:30 PM

CE Hours: 4.0

Learning Overview: This workshop will provide an overview of the Framework for Accreditation of Forensic Units developed as part of cooperative agreement 70NANB21H098 with the National Institute of Standards and Technology (NIST) that can be used by forensic service providers through the accreditation process. The workshop will review the benefits, and the drawbacks, to accreditation for an organization, particularly with respect to Crime Scene Investigation (CSI) and latent print units. It will also discuss why accreditation of Forensic Science Service Providers (FSSPs) is important to the criminal justice system using practical examples in forensics as well as other industries. Attendees will learn what a forensic accreditation program consists of and the structure of the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 17020 and ISO/IEC 17025 standards used to build a framework, along with the similarities and differences between the two. Attendees will learn how to approach building a quality management system and the overall accreditation process as well as tips for reading and interpreting standards.

Educational Objectives: After attending this workshop, attendees will understand some principles of ISO accreditation programs and quality management, necessary elements of the requirements in each standard (ISO/IEC 17020 and ISO/IEC 17025), and guidance on how to meet the requirements. Attendees will be provided with resources to help them develop an effective quality management system and become an accredited forensic service provider.

Impact on the Forensic Science Community: This presentation will impact those in forensic science who are considering accreditation, or beginning the process of obtaining accreditation, by explaining the pieces needed to build a framework of accreditation.

Target Audience: Criminalistics, Digital & Multimedia Sciences, General

Knowledge Level Required: Basic

Chair:

Nicole S. Jones, MS

Director

RTI International

Research Triangle Park, NC

Co-Chair:

Erin P. Forry, MS

Research Forensic Scientist

RTI International

Research Triangle Park, NC

Presenters:

Allison Getz, BS

Physical Scientist

National Institute of Standards and Technology (NIST)

Monrovia, MD

John H. Grassel, MS

Senior Manager

RTI International

Apex, NC

WORKSHOPS

W12 Reading the Blueprint to Construct the Framework: Demystifying Forensic Accreditation

Program:

- 1:00 PM – 1:15 PM **Welcome and Introductions**
Allison Getz, BS
- 1:15 PM – 2:15 PM **Defining the Task: High-Level Explanation of Quality Management System and Accreditation**
Erin P. Forry, MS
- 2:15 PM – 3:15 PM **Choosing the Blueprint—ISO/IEC 17020 or ISO/IEC 17025: Review of the Similarities and Differences Between the Two Standards**
Nicole S. Jones, MS
- 3:15 PM – 3:30 PM **BREAK**
- 3:30 PM – 4:30 PM **What’s Already in the Toolshed? Provide Approaches in Building the QMS**
Erin P. Forry, MS
- 4:30 PM – 5:30 PM **Perspective of Quality Management and Accreditation in Laboratory Programs, Crime Scene Investigation Units, and Single Person FSSPs**
John H. Grassel, MS

WORKSHOPS

Pre-Registration Required—\$225

W13 Beyond the “Who Done It . . .” DNA Interpretation Given Activity Level Propositions

Tuesday, February 20, 2024

8:30 AM – 5:30 PM

CE Hours: 6.75

Program Description: This workshop will demonstrate peer-reviewed, published methods for evaluating DNA evidence given activity level propositions as well as related testimony at court. DNA testimony has moved past the “Who?” questions related to the source of the DNA and it is now common for questions to be asked about “How?” the DNA ended up on the evidence item. While this is often done using hypothetical questions designed to elicit vague answers about “possible” or “could have” or “consistent with,” there are published frameworks and reporting and testimony guidelines available to assist both experts and the court. This workshop will cover the theory and application of Case Assessment and Interpretation (CAI) and Bayesian networks (BN) to evaluate DNA evidence profiles given activity level propositions and the communication of these results via report writing and testimony. A combination of lectures, demonstrations, and hands-on group activities will be used in this workshop. Challenges in both the evaluation of the evidence and with testimony within an adversarial court system will be addressed as well.

Educational Objectives: After attending this workshop, attendees will be able to communicate expert knowledge on the evaluation of DNA evidence given activity level propositions using a scientifically sound framework and published practices. Participants will understand how to apply the Case Assessment and Interpretation (CAI) framework to perform case pre-assessments, formulate activity level propositions, and assign likelihood ratios for biological evidence given activity level propositions. This knowledge provides attendees with tools to handle hypothetical questions commonly asked in court, how to recognize poorly worded questions, and provide answers to these hypotheticals in a scientifically correct manner.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing guidance for real-world testimony on how to handle DNA testimony when the court’s interest is beyond that of an “inclusion” and its associated sub-source likelihood ratio.

Target Audience: Criminalistics, General, Jurisprudence

Knowledge Level Required: Intermediate

Chair:

Tim Kalafut, PhD

Associate Professor
Sam Houston State University
Department Forensic Science
Huntsville, TX

Co-Chair:

Michael Coble, PhD

Associate Professor/Executive Director
UNTHSC Center for Human Identification
Ft. Worth, TX

Presenter:

Simone Gittelson, PhD

Forensic Statistician/Lecturer
DC Department of Forensic Sciences
Washington, DC

WORKSHOPS

W13 Beyond the “Who Done It . . .” DNA Interpretation Given Activity Level Propositions

Program:

- 8:30 AM – 8:45 AM **Opening Remarks**
Tim Kalafut, PhD
- 8:45 AM – 10:00 AM **Great Expectations**
Tim Kalafut, PhD
- 10:00 AM – 10:30 AM **Likelihood Ratios**
Michael Coble, PhD
- 10:30 AM – 10:45 AM **BREAK**
- 10:45 AM – 12:00 PM **ISFG Recommendations 2020**
Simone Gittelson, PhD
- 12:00 PM – 12:30 PM **Introduction to Bayesian Networks**
Simone Gittelson, PhD
- 12:30 PM – 1:30 PM **BREAK**
- 1:30 PM – 2:00 PM **Introduction to Case Pre-Assessment Exercise**
Michael Coble, PhD
- 2:00 PM – 3:15 PM **Case Pre-Assessment Exercise**
All Presenters
- 3:15 PM – 3:30 PM **BREAK**
- 3:30 PM – 5:00 PM **Court Testimony**
Tim Kalafut, PhD; Michael Coble, PhD
- 5:00 PM – 5:30 PM **Questions and Answers/Closing Remarks**
Michael Coble, PhD

WORKSHOPS

Pre-Registration Required—\$225

W14 Applications of Digital Forensic Audio/Video for Real Life Challenges With DeepFake Video, Audio, and Artificial Intelligence

Tuesday, February 20, 2024

8:30 AM – 5:15 PM

CE Hours: 7.0

Program Description: Digital Multimedia Authentication seeks to determine the validity of digital multimedia containers and contents by investigating their format, structure, time, frequency, pixel and/or sample level features. This workshop will discuss the digital audio and video analysis process providing the user with methods of detecting and authenticating audio, including Deep-Voice, and DeepFake videos. It will also demonstrate the incorporation of multiple tools and techniques into unified frameworks appropriate in forensic examinations where reducing examiner bias and error is crucial.

Educational Objectives: After attending this workshop, attendees will: (1) be familiar with the latest developments in forensic audio analysis and authentication; (2) understand criteria used for media authentication; and (3) understand how to conduct analysis within a forensic framework and (4) multiple frameworks to use for DeepFake video detection..

Impact on the Forensic Science Community: This workshop will impact the forensic community by: (1) explaining the scientific approach in forensic audio authentication; (2) demonstrating an authentication investigation framework; (3) discussing tools used to combat multimedia forgery; (4) showing multiple frameworks to use for DeepFake video detection.

Target Audience: Digital & Multimedia Sciences

Knowledge Level Required: Intermediate

Chair:

Catalin Grigoras, PhD

Director

National Center for Media Forensics

Denver, CO

Co-Chair:

Zeno J. Geradts, PhD

Senior Forensic Scientist

Chair Forensic Data Science

NFI / University of Amsterdam,

Den Haag, Zuid-Holland, NETHERLANDS

Presenter:

Cole Whitecotton, MS

Senior Professional Research Assistant

National Center for Media Forensics

Denver, CO

Program:

8:30 AM – 9:45 AM	Audio 1 <i>Catalin Grigoras, PhD</i>
9:45 AM – 10:15 AM	Questions and Answers/Discussion
10:15 AM – 10:30 AM	BREAK
10:30 AM – 11:45 AM	Audio 2 <i>Catalin Grigoras, PhD</i>
11:45 AM – 12:15 PM	Questions and Answers/Discussion
12:15 PM – 1:30 PM	BREAK
1:30 PM – 2:45 PM	Video 1 <i>Zeno J. Geradts, PhD</i>
2:45 PM – 3:15 PM	Questions and Answers/Discussion
3:15 PM – 3:30 PM	BREAK
3:30 PM – 4:45 PM	Video 2 <i>Zeno J. Geradts, PhD</i>
4:45 PM – 5:15 PM	Questions and Answers/Discussion

WORKSHOPS

Pre-Registration Required—\$225

W15 To Tell the Truth: Perspectives on the Practice of Courtroom Testimony

Tuesday, February 20, 2024

8:30 AM – 4:30 PM

CE Hours: 6.0

Program Description: This session is a multidisciplinary workshop focused on courtroom testimony. The sessions are geared for all levels of experience from novice to seasoned professional. While the speakers will focus on subjects that include training, preparation, cognitive bias, courtroom technology, and “high profile” cases, the sessions will explore criminal versus civil, deposition versus trial, state versus federal versus military, etc. Various perspectives from the different stakeholders involved are addressed—judge, prosecutor, defense, professional, and consultant.

Educational Objectives: Upon completion of this workshop, attendees will be better able to understand and perform one of the most challenging parts of any forensic practice—courtroom testimony in its many forms, be it civil or criminal, federal, military, or state, and deposition or trial.

Impact on the Forensic Science Community: This workshop will impact the forensic science community by providing a multidisciplinary look at the why and how of the practice of courtroom testimony, including recognizing potential challenges and pitfalls.

Target Audience: Anthropology, Criminalistics, Engineering & Applied Sciences, General, Pathology/Biology

Knowledge Level Required: Intermediate

Chair:

J.C.U. Downs, MD

Medicolegal Consultant
ForensX, LLC
Johns Island, SC

James L. Caruso, MD

Chief Medical Examiner
Office of the Medical Examiner
Denver, CO

Co-Chair:

Gina Londino-Smolar, MS

Teaching Professor
Forensic & Investigative Sciences Program
Department of Chemistry & Chemical Biology
Indiana University–Purdue University Indianapolis
Indianapolis, IN

Marc A. LeBeau, PhD

Senior Forensic Scientist
FBI Laboratory
Quantico, VA

Michelle Medina, JD

Managing Partner
The Baez Law Firm
Miami, FL

Presenters:

Craig Ackley, MS

Co-Founder & Head of Product Development/President
Compendia, Inc.
Forensic Case Solutions, Inc.
Nashville, TN

Kenneth E. Melson, JD

Professorial Lecturer at Law
The George Washington University
Kinsale, VA

Tamela Adkins, JD

Superior Court Judge
Gwinnett County Georgia
Lawrenceville, GA

WORKSHOPS

W15 To Tell the Truth: Perspectives on the Practice of Courtroom Testimony

Program:

- 8:30 AM – 8:40 AM **Welcome and Introduction**
Gina Londino-Smolar, MS; J.C.U. Downs, MD
- 8:40 AM – 9:30 AM **Perspectives: Judges**
Tamela Adkins, JD
- 9:30 AM – 10:15 AM **Perspectives: Prosecutors**
Kenneth E. Melson, JD
- 10:15 AM – 10:30 AM **BREAK**
- 10:30 AM – 11:15 AM **Perspectives: Defense Attorneys**
Michelle Medina, JD
- 11:15 AM – 11:45 AM **Questions and Answers Panel**
Tamela Adkins, JD; Kenneth E. Melson, JD; Michelle Medina, JD
- 11:45 AM – 1:00 PM **BREAK**
- 1:00 PM – 1:45 PM **Perspectives: Crime Scene Analysis**
Craig Ackley, MS
- 1:45 PM – 2:30 PM **Perspectives: Forensic Scientists**
Marc A. LeBeau, PhD
- 2:30 PM – 2:45 PM **BREAK**
- 2:45 PM – 3:30 PM **Perspectives: Forensic Pathologists**
James L. Caruso, MD
- 3:30 PM – 4:15 PM **Questions and Answers Panel**
Craig Ackley, MS; Marc A. LeBeau, PhD; James L. Caruso, MD
- 4:15 PM – 4:30 PM **Closing**
J.C.U. Downs, MD; Gina Londino-Smolar, MS

Proceeds from this workshop will benefit the Forensic Sciences Foundation



FSF
FORENSIC SCIENCES
FOUNDATION

WORKSHOPS

Pre-Registration Required—\$225

W16 Statistics and Forensic Science: From Probability to Black Box Studies to Likelihood Ratios

Tuesday, February 20, 2024

8:30 AM – 4:30 PM

CE Hours: 5.75

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

Educational Objectives: Participants will: (1) 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; (2) become familiar with the language and key concepts of statistical inference including the role of data collection, measurement, error rates, reliability, and validity; (3) understand issues associated with the design, execution, and interpretation of black box studies; (4) understand statistical hypothesis testing and its relevance for the two-stage approach for analyzing forensic evidence; and (5) understand the likelihood ratio / Bayes factor approach to assessing forensic evidence along with its strengths and weaknesses.

Impact on the Forensic Science Community: 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 attendees in a position to better understand and engage in ongoing discussions (in the OSAC and other places) about appropriate approaches to assessing forensic evidence and reporting forensic conclusions.

Target Audience: All Disciplines

Knowledge Level Required: Basic

Chair:

Linton Mohammed, PhD
Forensic Document Examiner
Forensic Science Consultants, Inc
Poway, CA

Co-Chair:

James Green, BS
Forensic Document Examiner
Eugene, OR

Presenters:

Michael J. Salyards, PhD, MFS
Principal Analyst
Compass Scientific Consulting LLC
Tucson, AZ

Hal S. Stern, PhD
Chancellor's Professor of Statistics
University of California, Irvine
Irvine, CA

Program:

8:30 AM – 10:00 AM	Introduction and Probability Concepts <i>Hal S. Stern, PhD; Michael J. Salyards, PhD, MFS</i>
10:00 AM – 10:30 AM	BREAK
10:30 AM – 12:00 PM	Forensic Conclusions and Expert Opinions/Black Box Studies <i>Hal S. Stern, PhD; Michael J. Salyards, PhD, MFS</i>
12:00 PM – 1:00 PM	BREAK
1:00 PM – 2:30 PM	Statistical Methods and the Two-Stage Approach to Forensic Inference <i>Hal S. Stern, PhD; Michael J. Salyards, PhD, MFS</i>
2:30 PM – 3:00 PM	BREAK
3:00 PM – 4:30 PM	The Likelihood Ratio in Forensic Science <i>Hal S. Stern, PhD; Michael J. Salyards, PhD, MFS</i>

WORKSHOPS

Pre-Registration Required—\$225

W17 Crime Scene Reconstruction: Using Critical Thinking, Logic, and Reflection

Tuesday, February 20, 2024

8:30 AM – 5:30 PM

CE Hours: 5.75

Program Description: This workshop is applicable to all forensic science disciplines and will begin with an overview of forensic reconstruction in a broad sense, followed by detailed information on how people process information to come to a conclusion, and culminating with a hands-on practical exercise involving all attendees who will implement the concepts studied and presented. During the presentation, attendees will be instructed on the background of reconstruction and how, by using a multidisciplinary systematic method of inquiry to problem-solving, they will be more likely to come to a logical and factual outcome.

Educational Objectives: This workshop will assist attendees in understanding and implementing the scientific method of inquiry to criminal investigations and forensic science problems by the use of physical evidence, objective data/information, artifacts of affect, and methods/processes of reasoning, logic, and cognitive learning within the contextual bounds of where this data/information is located, to derive knowledge regarding a particular incident and, when possible, to provide a chronological sequence to the incident.

Impact on the Forensic Science Community: This workshop is critical to all forensic scientists, crime scene investigative personnel, detectives, pathologists, and attorneys charged with investigating violations of law. By understanding logic, critical thinking, and reasoning, the law enforcement and forensic professional will better understand how their own biases and/or lack of knowledge and understanding can impact their decision-making process that could lead to a flawed outcome or conclusion.

Target Audience: All Disciplines

Knowledge Level Required: Basic

Chair:

David Pauly, MFS

Professor of Forensic Science/Sirchie Instructor
Methodist University
New London, NC

Presenters:

Bryan W. Brendley, PhD

Professor of Forensic Science
Methodist University
Greensboro, NC

Co-Chair:

Steve Downs, DBA

Professor/Program Director of Forensic Science
Methodist University
Fayetteville, NC

Douglas Young

Sr. Criminalist/Sirchie Instructor
Thornton Police Department
Broomfield, CO

WORKSHOPS

W17 **Crime Scene Reconstruction: Using Critical Thinking, Logic, and Reflection**

Program:

- 8:30 AM – 10:00 AM **What is Reconstruction?**
Douglas Young
- 10:00 AM – 10:15 AM **BREAK**
- 10:15 AM – 11:30 AM **Requirements for Crime Scene Reconstruction**
Douglas Young; Steve Downs, DBA
- 11:30 AM – 1:00 PM **BREAK**
- 1:00 PM – 2:15 PM **Foundational Pillars to Reconstruction**
Douglas Young
- 2:15 PM – 2:30 PM **BREAK**
- 2:30 PM – 4:00 PM **Data Acquisition Thoughts/Questions/Organization**
Douglas Young; Bryan W. Brendley, PhD
- 4:00 PM – 4:15 PM **BREAK**
- 4:15 PM – 5:30 PM **Practical Exercises Involving All Participants Regarding a Mock BPA and Projectile/
Ballistics Reconstruction**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W18 **Campus Shootings in America: Is There More We Can Do?**

Tuesday, February 20, 2024

8:30 AM – 12:30 PM

CE Hours: 3.5

Program Description: This presentation will provide an overview of campus shootings in America and continue with legislative and legal updates through case analyses. This workshop will explore gender, mental illness, behavior, victimology, and weaponry.

Educational Objectives: Attendees will be able to assess their role in making positive and effective changes to policy, practice, and research within and among multiple disciplines. Attendees will have the opportunity to discuss their existing practices and brainstorm alternates throughout the presentation.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by reminding all attendees of their role in making positive and effective changes to eliminate campus shootings by focusing on our historical, during, and post-incident responses and using case analyses to encourage accountability and promote real-time collaborative research and practices within multiple disciplines.

Target Audience: Criminalistics, Digital & Multimedia Sciences, Engineering & Applied Sciences, General, Jurisprudence, Pathology/Biology, Psychiatry & Behavioral Sciences, Questioned Documents, Toxicology

Knowledge Level Required: Intermediate

Chair:

Betsy Adelizzi, PhD

Missouri Southern State University
Joplin, MO

Presenters:

Travis Walthall, MS

Missouri Southern State University
Joplin, MO

Timothy Wilson, PhD

Missouri Southern State University
Joplin, MO

Co-Chair:

Patricia Smith, MSL

Harris County District Attorney's Office
Houston, TX

Patricia Williams, MS, RN

Retired
Franklin, TN

Program:

8:30 AM – 8:35 AM	Introductions <i>Patricia Williams, MS, RN</i>
8:35 AM – 9:05 AM	A Case Study of the Umpqua Community College Shooting <i>Timothy Wilson, PhD</i>
9:05 AM – 9:35 AM	Historical Perspective: High Schools vs. Colleges <i>Betsy Adelizzi, PhD</i>
9:35 AM – 10:05 AM	Weaponry and Victimology: Injury Patterns <i>Travis Walthall, MS; Timothy Wilson, PhD</i>
10:05 AM – 10:15 AM	Case Review <i>Timothy Wilson, PhD; Betsy Adelizzi, PhD</i>
10:15 AM – 10:35 AM	BREAK

WORKSHOPS

W18 **Campus Shootings in America: Is There More We Can Do?**

Program continued:

- 10:35 AM – 11:05 AM **Shooter Profiles, Mental Illness, Behaviors**
Betsy Adelizzi, PhD; Timothy Wilson, PhD
- 11:05 AM – 11:35 AM **Legal and Legislative Responses**
Patricia Smith, MSL
- 11:35 AM – 12:05 PM **Training and Response Times**
Travis Walthall, MS
- 12:05 PM – 12:15 PM **Case Review**
Betsy Adelizzi, PhD; Patricia Smith, MSL
- 12:15 PM – 12:30 PM **Questions and Answers**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W19 Forensic Scientists on the Front Lines

Tuesday, February 20, 2024

8:30 AM – 12:30 PM

CE Hours: 3.75

Program Description: After attending this workshop, attendees will be able to discuss examples of teamwork approaches that place forensic scientists on the front lines, addressing the challenges associated with the growing number of emerging drug substances and precursors, the complexity of the analysis, and the impact on enforcement and intelligence investigations.

Educational objectives: After attending this workshop, attendees will be able to: (1) describe how forensic techniques can be used beyond simply reporting the presence of controlled substances to provide insights into changes in drug manufacturing and distribution practices; (2) evaluate the differences in analytical capabilities and workflow strategies provided in central laboratories versus front line laboratories; and (3) to explain how forensic analysis impacts intelligence gathering to support investigations, health, and safety.

Impact on the Forensic Science Community: This workshop will benefit the forensic science community by highlighting the impacts of forensic science collaborations on investigations, epidemiology, drug intelligence, public health, and canine training and operations. It will also highlight how deployment of laboratories on the front lines strengthen the efficiency of these operations, utility of the results, and timeliness of testing.

Target Audience: Criminalistics, General, Jurisprudence, Pathology/Biology, Toxicology

Knowledge Level Required: Basic

Chair:

Agnes D. Winokur, MS
Laboratory Director
DEA
Miami, FL

Co-Chair:

Barry K. Logan, PhD
Executive Director
CFSRE
Horsham, PA

Presenters:

Larry D. Fluty
Assistant Commissioner
U.S. Customs & Border Protection
Montgomery, TX

Sandra S. Ferreira, MSc
Canada Border Services Agency
Ottawa, Ontario CANADA

Alex J. Krotulski, PhD
Associate Director
CFSRE
Abington, PA

Chad Maheux, MSc, MA
Nepean, Ontario, CANADA

Jonathan McGrath, PhD, MSFS
Principal Technical Advisor
U.S. Customs and Border Protection
Houston, TX

Scott R. Oulton, BS
Deputy Assistant Administrator
Drug Enforcement Administration
Springfield, VA

WORKSHOPS

W19 Forensic Scientists on the Front Lines

Program:

- 8:30 AM – 8:45 AM **Introduction and AAFS Opioids and Emerging Drugs Committee Updates**
Agnes D. Winokur, MS
- 8:45 AM – 9:15 AM **Scientists at the Frontline: Canadian Border Approach to Narcotics Detection**
Chad Maheux, MSc, MA; Sandra S. Ferreira, MSc
- 9:15 AM – 9:45 AM **National Intelligence: Fentanyl and Its Precursors and Adulterants**
- 9:45 AM – 10:15 AM **Rapid Results at the Border: The CBP LSS Forward Operating Labs (FOLs) Program**
Larry D. Fluty
- 10:15 AM – 10:30 AM **BREAK**
- 10:30 AM – 11:00 AM **Public Health's Response to the Overdose Crisis Using Front-Line Harm Reduction Initiatives to Gather Real-Time Intelligence**
Alex J. Krotulski, PhD
- 11:00 AM – 11:30 AM **Analytical Scheme for the Characterization of Fentanyl Seizures From the United States Southwest Border**
Sarah A. Shuda, MSFS
- 11:30 AM – 12:00 PM **Joint Intelligence National Threat Response (INTREPID)**
Scott R. Oulton, BS
- 12:00 PM – 12:20 PM **K-9 Drug Detection: How Forensic Scientists Can Strengthen Detector Dog Training and Operations**
Jonathan G. McGrath, PhD, MSFS
- 12:20 PM – 12:30 PM **Questions and Answers**
All Presenters

WORKSHOPS

Pre-Registration Required—\$125

W20 Moving Toward High Reliability in Forensic Science

Tuesday, February 20, 2024

8:30 AM – 12:00 PM

CE Hours: 3.0

Program Description: Socio-technical systems are made up of humans interacting with technology within the confines of an organizational culture. Forensic practice is socio-technical because it involves all these elements. Attendees will learn to see, understand, and manage risk in each of these elements to increase their overall organizational reliability and how to take steps to make their operations resilient.

Educational Objectives: Attendees will learn to see, understand, and manage risk in within their operations.

Impact on the Forensic Science Community: The work product of forensic providers is critical to the Criminal Justice System. While there have been advances in overall quality over the years, forensic providers still find themselves reacting to adverse incidents as they become front-page headlines. Attendees will learn proactive approaches that will prevent adverse events from occurring and mechanisms that can be put in place to quickly recover from these incidents if they do occur.

Target Audience: All Disciplines

Knowledge Level Required: Basic

Chair:

Brian J. Gestring, MS

Consultant

4n6services

Guilderland, NY

Co-Chair:

Laura C. Fulginiti, PhD

Forensic Anthropologist

Maricopa County

Office of the Medical Examiner

Phoenix, AZ

Presenter:

K. Scott Griffith, MS

Founding Partner

SG Collaborative Solutions

Roanoke, TX

Program:

8:30 AM – 9:00 AM	Introduction <i>Laura C. Fulginiti, PhD</i>
9:00 AM – 9:45 AM	Seeing and Understanding Risk <i>K. Scott Griffith, MS</i>
9:45 AM – 10:15 AM	Risk in Forensic Practice <i>Brian J. Gestring, MS</i>
10:15 AM – 10:30 AM	BREAK
10:30 AM – 11:15 AM	Strategies for Organizational Reliability <i>K. Scott Griffith, MS</i>
11:15 AM – 11:35 AM	Obstacles to Managing Risk and Building Resiliency in Forensic Practice <i>Laura C. Fulginiti, PhD; Brian J. Gestring, MS</i>
11:35 AM – 12:00 PM	Moving Toward High Reliability in Your Operation <i>All Presenters</i>

WORKSHOPS

Pre-Registration Required—\$125

W21 Investigation and Certification of Intoxication Deaths for the Non-Pathologist

Tuesday, February 20, 2024

1:00 PM – 4:30 PM

CE Hours: 3.25

Program Description: This workshop brings together experts in medicolegal death investigation, forensic pathology, and forensic toxicology to discuss the investigation and toxicological analysis when substance use is suspected, focusing on identifying and certifying these deaths. Common problems faced during the investigation, confounding or competing findings at autopsy, and pitfalls in postmortem toxicological testing and interpretation will be explored. To properly certify these deaths, experts will discuss the impact of information gained from the investigation of the circumstances, autopsy, and appropriate postmortem toxicological testing.

Educational Objectives: Attendees will be introduced to the essential components necessary for competent medicolegal death investigation and proper certification of suspected substance-related deaths. Experts from their respective fields will discuss death investigation, autopsy, and forensic toxicology. This program focuses on practical information that can be used by the non-pathologist and the pathologist-in-training to understand the necessary task of investigating and certifying these deaths. The importance of proper death certification for public health and safety purposes will be stressed.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing non-pathologists with practical information to help them understand the medicolegal investigative process, toxicological testing, and result interpretations to facilitate the recognition, investigation, and certification of drug intoxication deaths.

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

Knowledge Level Required: Intermediate

Chair:

James R. Gill, MD

Forensic Pathologist

Office of the Chief Medical Examiner

Farmington, CT

Co-Chair:

Laura Labay, PhD

Director of Toxicological Services

NMS Labs

Langhorne, PA

Presenters:

Kelly Keyes, BS

Research Forensic Scientist

RTI International

Yorba Linda, CA

Candace H. Schoppe, MD

Deputy Medical Examiner

San Diego County Medical Examiner's Office

San Diego, CA

Program:

1:00 PM – 1:05 PM	Opening Remarks and Introduction <i>James R. Gill, MD</i>
1:05 PM – 1:45 PM	Investigation <i>Kelly Keyes, BS</i>
1:45 PM – 2:30 PM	Autopsy <i>Candace H. Schoppe, MD</i>
2:30 PM – 2:45 PM	BREAK
2:45 PM – 3:30 PM	Toxicology Testing <i>Laura Labay, PhD</i>
3:30 PM – 4:15 PM	Interpretation and Certification <i>James R. Gill, MD</i>
4:15 AM – 4:30 PM	Closing Remarks and Questions <i>Laura Labay, PhD</i>

WORKSHOPS

Pre-Registration Required—\$125

W22 How Should Forensic Genetic Genealogy (FGG) Navigate the Court System? A Mock Cross Examination

Tuesday, February 20, 2024

1:00 PM – 5:00 PM

CE Hours: 3.75

Program Description: This workshop provides insight into the technical and legal challenges that may arise during cross examination, in the context of challenges the community faces if FGG should move further into the court system.

Educational Objectives: By attending this workshop, attendees will gain a perspective on important issues related to the introduction of FGG in court, from both the prosecution and defense points of view. The mock trial and subsequent discussion will also provide FGG practitioners with insight into how to present expert testimony.

Impact on the Forensic Science Community: This presentation will impact the forensic science community through a demonstration of the cross examination of a qualified, competent FGG expert witness, to show in real time various technical and legal challenges that may arise in court as FGG moves further into the judicial system.

Target Audience: Criminalistics, General, Jurisprudence

Knowledge Level Required: Basic

Chair:

Colleen M. Fitzpatrick, PhD

President

Identifinders International LLC

Fountain Valley, CA

Co-Chair:

Karra Porter

Chief Executive Officer

Intermountain Forensics

Salt Lake City, UT

Presenters:

Michael Coble, PhD

Associate Professor/Executive Director

University of North Texas Health Science Center

Ft. Worth, TX

Mitch Morrissey, JD

Chief of Operations

United Data Connect

Lakewood, CO

Program:

1:00 PM – 1:15 PM	Welcome, Introductions, Discussion of Mock Trial <i>Colleen Fitzpatrick, PhD</i>
1:15 PM – 1:45 PM	Expert Witness Testimony and the Judicial Environment <i>Mike Coble, PhD</i>
1:45 PM – 2:00 PM	Introduction to Mock Trial Case <i>Karra Porter; Mitch Morrissey, JD</i>
2:00 PM – 3:15 PM	Mock Trial With Real Time Prosecution and Defense Analyses: Expert Witness Credentials; Information Obtained From Law Enforcement; Controversies Involving Forensic Practitioners <i>Colleen Fitzpatrick, PhD; Mitch Morrissey, JD; Karra Porter</i>
3:15 PM – 3:30 PM	BREAK
3:30 PM – 4:45 PM	Mock Trial With Real Time Prosecution and Defense Analyses: Bias For or Against Law Enforcement; Statistics, Including Ascertainment Bias and Racial Disparities; The Use of Unaccredited Labs and Bioinformatics Methods <i>Colleen Fitzpatrick, PhD; Mitch Morrissey, JD; Karra Porter</i>
4:45 PM – 5:00 PM	Closing Remarks and Discussion <i>All Presenters</i>

WORKSHOPS

Pre-Registration Required—\$125

W23 The Impact of Burning on Skeletal and DNA Evidence

Tuesday, February 20, 2024

1:00 PM – 4:30 PM

CE Hours: 3.25

Program Description: After attending this workshop, attendees will have learned how fire affects bodies and the ability of researchers and forensic practitioners to obtain skeletal and DNA evidence. The presenters will provide an overview of how bodies burn from case examples as well as experimental burning of complete human bodies and will discuss the classifications used to describe the extent of burning (i.e., the temperatures reached) in bone by previous researchers. Attendees will also learn about DNA extraction methods that have been applied to burned tissue and bone. The presenters will discuss the success of these methods based on data from research projects examining the effects of burning on skeletal remains and on the recovery of DNA from those remains. Attendees will learn how the DNA recovered from these burned remains performs in subsequent Combined DNA Index System (CODIS) Short Tandem Repeat (STR) and Next Generation Sequencing (NGS) analyses that aim to test the limits of DNA recovery from fire-death victims. This workshop probes the methods (and challenges) for obtaining DNA using novel ancient genomic technologies optimized for maximum ultra-short molecular recovery, as well as for obtaining skeletal evidence, including evidence for trauma, from burned human remains.

Educational Objectives: After attending this workshop, attendees should be able to: (1) describe methods used to characterize the extent of burning in bone; (2) understand the effects of burning on bodies, (3) appreciate the different extraction methods applied to burned and highly degraded skeletal tissues, and (4) evaluate which downstream analyses are likely to produce useful data for case identification.

Impact on the Forensic Science Community: The recovery and analysis of skeletal evidence and DNA from burned human remains represent some of the most challenging cases in medicolegal investigations. This workshop will impact the forensic science community by increasing attendees' understanding of how burning affects the body and DNA preservation. Specifically, attendees will understand the characteristics used to score the level of burning in bones and the protocols used for optimal recovery of DNA from burned bone and tissue.

Target Audience: Anthropology, Criminalistics

Knowledge Level Required: Basic

Chair:

Jane E. Buikstra, PhD
Professor
Arizona State University
Tempe, AZ

Co-Chair:

Katelyn L. Bolhofner, PhD
Assistant Professor
Forensic Anthropology
Arizona State University
Glendale, AZ

Presenters:

Joanne Devlin, PhD
Associate Director
Forensic Anthropology Center
University of Tennessee
Knoxville, TN

Laura C. Fulginiti, PhD
Forensic Anthropologist
Maricopa County
Office of the Medical Examiner
Phoenix, AZ

Cody E. Parker, MS
Post Doctoral Research Associate
School of Human Evolution
and Social Change
Arizona State University
Gilbert, AZ

Erin M. Rawls, MS
Graduate Research Assistant
Arizona State University
Tempe, AZ

Anne Stone, PhD
Professor
Arizona State University
Tempe, AZ

Giovanna Vidoli, PhD
Research Associate Professor
Forensic Anthropology Center
University of Tennessee,
Knoxville, TN

WORKSHOPS

W23 The Impact of Burning on Skeletal and DNA Evidence

Program:

- 1:00 PM – 1:15 PM **Introduction and Background About Workshop**
Anne Stone, PhD
- 1:15 PM – 1:45 PM **Burn Characteristics and Scoring in Forensic Contexts**
Katelyn L. Bolhofner, PhD; Laura C. Fulginiti, PhD; Jane E. Buikstra, PhD
- 1:45 PM – 2:30 PM **Observations From Experimental Burning**
Giovanna Vidoli, PhD; Joanne Devlin, PhD
- 2:30 PM – 2:45 PM **BREAK**
- 2:45 PM – 3:30 PM **Comparisons of Different DNA Extraction Methods for Burned Remains (Bone and Tissue)**
Cody E. Parker, PhD
- 3:30 PM – 4:15 PM **Application of STR and NGS Analyses to DNA Obtained From Burned Remains**
Erin M. Rawls, MS; Cody E. Parker, PhD
- 4:15 PM – 4:30 PM **Wrap-Up and Implications for the Forensic Community**
Laura C. Fulginiti, PhD

ANTHROPOLOGY

Wednesday

Poster Session

-
- | | | |
|--------------------|------------|---|
| 11:30 AM – 1:00 PM | A1 | Increasing Access and Engagement at Academic Conferences: Comparing Modalities and Facilitating Interactions
<i>Lisa Monetti, PhD, MSc*</i> |
| 11:30 AM – 1:00 PM | A2 | Assessing Opportunities for Forensic Casework Experience for Students Through Educational Programs and Internships
<i>Katherine M. Lane, MA*; Stephanie Fuehr, MA; Kelly C. McGehee, MA; John J. Schultz, PhD</i> |
| 11:30 AM – 1:00 PM | A3 | How Contextual Information and Consideration of the Type of Bones Present Influence Interpretations of Identifiability
<i>Andrea Palmiotto, PhD*; Allysha P. Winburn, PhD; Christine M. Pink, PhD</i> |
| 11:30 AM – 1:00 PM | A4 | Mapping Barriers to Entry of Spanish-Speaking Students of Forensic Anthropology: Diversity in Academic Opportunities at United States Hispanic-Serving Institutions
<i>Patricia N. Morales Lorenzo, BS*; Samantha H. Blatt, PhD; Juliette Bedard, BA; Bailey Bates; Trace Miles</i> |
| 11:30 AM – 1:00 PM | A5 | Using Cause of Death and Skeletal Indicators of Health and Stress to Understand Structural Inequality
<i>Allyson M. Simon, MS*; Tempest D. Mellendorf, MS; Colleen M. Cheverko, PhD; Melissa A. Clark, PhD; Mark Hubbe, PhD</i> |
| 11:30 AM – 1:00 PM | A6 | The Development of a Migrant Profile for Unidentified Human Remains Found Across Three Medicolegal Offices in Greece
<i>Sophia Mavroudas, PhD*; Despoina E. Flouri, MD; Christina Karydi, MSc, BSc; Valeria M. Karakasi, MD; Konstantinos Moraitis, PhD; Pavlos Pavlidis, MD, PhD; Elena F. Kranioti, MD, PhD</i> |
| 11:30 AM – 1:00 PM | A7 | The Development of a Multidisciplinary, Minimally Invasive Approach for the Forensic Examination of Skulls
<i>Ayusha Dahal*; Dennis McNevin, PhD; Denise Donlon, BSc, PhD; Stewart Fallon, PhD; Jodie Ward</i> |
| 11:30 AM – 1:00 PM | A8 | An Investigation Into the Facial Dimensions of a North Indian Population: Implications in Facial Identification
<i>Ankita Guleria, MSc*; Kewal Krishan, PhD; Vishal Sharma, PhD</i> |
| 11:30 AM – 1:00 PM | A9 | The Identification of Fragmented Cranial Remains Exhumed From a Site Adjoining the Ajnala Site: A Forensic Anthropological Case Report
<i>Jagmahender Singh Sehrawat, PhD*; Niraj Rai, PhD</i> |
| 11:30 AM – 1:00 PM | A10 | Forensic Investigations on a Skull Found Inside a Roman Villa in the City of Diamante, Italy
<i>Elena Varotto, PhD; Francesco Maria Galassi; Saverio Gualtieri, MD; Lucia Tarda, MD; Matteo Antonio A. Sacco, MD*; Angelica Zibetti, MD; Umberto Rosini, MD; Alessandro Pasquale Tarallo, MD*; Vincenzo Maria Ritorto, MD; Maria Cristina Verrina, MD*; Luca Calanna, MD; Wandamaria Mazzuca*</i> |
| 11:30 AM – 1:00 PM | A11 | Skeletal Indicators of Down Syndrome: A Case Study in Forensic Anthropology
<i>Theresa M. De Cree, MS, BA; Ivanna Robledo, MA*; Emily Brooks, MS</i> |

ANTHROPOLOGY

- 11:30 AM – 1:00 PM **A12** **The Characteristics of a Vertebroplasty in Human Skeletal Remains**
*Nicholas V. Passalacqua, PhD**; *Rebecca L. George, PhD*; *Emma F. Taylor*; *Nuwan Perara*;
Erin Chapman, PhD
- 11:30 AM – 1:00 PM **A13** **An Unusual Case of Human Remains Found in an Urban Aqueduct**
*Stephanie Torres, MS**; *Ellen Fricano, PhD*
- 11:30 AM – 1:00 PM **A14** **Understanding the Potential of Chemical Anthropology in Burned Human Remains**
*Calil I. Makhoul, MSc**; *Luís A.E. Batista de Carvalho*; *David Gonçalves, PhD*;
Eugénia Cunha, PhD
- 11:30 AM – 1:00 PM **A15** **Is It Scientifically Impossible to Burn Human Bodies to Ashes? Revisiting the 2014 Case of the 43 Missing Students From the Ayotzinapa Rural Teachers College in Guerrero, Mexico**
*Elayne J. Pope, PhD**; *Alison Galloway, PhD*; *Chelsey A. Juarez, PhD*;
James G. Quintiere, PhD; *Riccardo Torres, AAS*
- 11:30 AM – 1:00 PM **A16** **An Evaluation of Commingled Remains Using Computational Methods to Reconstruct Dental MNI Based on Dental Wear**
*Melanie Need, BSc**; *Xenia Paula Kyriakou, PhD*; *Tim Eckhardt, BSc*
- 11:30 AM – 1:00 PM **A17** **MNI, NIDS, Centroids: Additional Considerations for Individuating Commingled Remains Using Stable Isotope Ratios**
*Stephanie B. Hartley, MA**; *Lesley A. Chesson, MS*; *Gregory E. Berg, PhD*
- 11:30 AM – 1:00 PM **A18** **The Accuracy and Reliability of Visual Pair Matching Lower Limb Bones in a Commingled Skeletal Assemblage**
*Abigail K. Kindler, MA**; *Cortney N. Hulse, PhD*; *Carrie LeGarde, MA*
- 11:30 AM – 1:00 PM **A19** **Assessing the Impact of Opioid Use on Human Clavicles Through Clinical Computed Tomography (CT): A Pilot Study**
*Randi M. Depp, MS**; *Reed A. Davis, PhD*; *Evin Hessel, MS*
- 11:30 AM – 1:00 PM **A20** **An Evaluation and Integration of Disparate Classification Schemes for Interparietal Bones in the Human Crania**
*Rhian R. Dunn, MS**; *Holly Long, MS*; *Melissa Clarkson, MDes, PhD*; *Joe T. Hefner, PhD*
- 11:30 AM – 1:00 PM **A21** **Is Bone Speed of Sound Affected by the Molecular Composition of Infant Bone?**
*Miriam E. Soto Martinez, PhD**; *Jason M. Wiersema, PhD*; *Christian Crowder, PhD*;
Angela Bachim, MD
- 11:30 AM – 1:00 PM **A22** **Laser Me This: Using Laser-induced Breakdown Spectroscopy to Detect Formalin in Human Remains**
*Morghana Montana Hogg, BS**; *Micki Besse, MS*; *Savanna Agilar, MS*;
Heather A. Walsh-Haney, PhD; *Jay Radtke, MD*
- 11:30 AM – 1:00 PM **A23** **An Application of Dietary Isotopes to Estimate Temporal Context of Unidentified Human Remains in British Columbia, Canada**
*Damon C. Tarrant, BA**; *Laura Yazedjian, MSc, BA*; *Michael Richards, PhD*
- 11:30 AM – 1:00 PM **A24** **How Low Can You Go? A Lower Bound Limit for $\delta^{15}\text{N}$ Values From Human Bone Collagen**
*Amanda N. Friend, PhD**; *Claire Maass, PhD*; *Lesley A. Chesson, MS*;
Gregory E. Berg, PhD

ANTHROPOLOGY

- 11:30 AM – 1:00 PM **A25** **Taphonomic Effects on the C:N Ratio and $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ Isotopes in Bone Collagen**
*Nicole Long**; Ann H. Ross, PhD; Ethan Hyland
- 11:30 AM – 1:00 PM **A26** **Using Forensic Anthropological Landmarks to Optimize DNA Extractions From Post-Cranial Remains**
*Keith Biddle, MA, PhD**
- 11:30 AM – 1:00 PM **A27** **Validation and Quality Control of 3D Coordinate Data From Human Crania for Forensic Casework**
*Amanda R. Hale, MA**; Rebecca J. Taylor, PhD
- 11:30 AM – 1:00 PM **A28** **A Multivariate Analysis and Evaluation of Classification of Human Skeletal Vertebrae for an Applied Context**
*Jolen Anya Minetz, MA**; Stephen Ousley, PhD

Thursday

Poster Session

- 11:30 AM – 1:00 PM **A29** **Investigating Applications of Forensic Fractography of Bone Over the Postmortem Interval**
*Carter A. Unger, BS**; Mariyam I. Isa, PhD
- 11:30 AM – 1:00 PM **A30** **Measuring Volatile Organic Compounds (VOCs) From Decomposing Human Tissue**
*Sheana S. Ramcharan, MS, BS**; Luis L. Cabo, MS; Jack D. Williams, PhD;
Michael S. Foulk, PhD
- 11:30 AM – 1:00 PM **A31** **Tracing PMI Through Bone Metabolomics With GC/MS and LC/MS/MS**
*Elisa Roggia, BS**; Luke William Gent, BSc, MRes; Andrea Bonicelli, PhD, MA;
Noemi Procopio, PhD; Eugenio Alladio
- 11:30 AM – 1:00 PM **A32** **Using Evidence of Microbial Modifications on the Postmortem to Narrow Down the Postmortem Interval**
*Caroline Rowe, PhD**
- 11:30 AM – 1:00 PM **A33** **The Megyesi Total Body Score Method: Inter-Observer Agreement and Sources of Bias**
*Tempest D. Mellendorf, MS**; Madeline R. Leggiero; Allyson M. Simon, MS;
Varun V. Tewari, BS, BA; Luis L. Cabo, MS
- 11:30 AM – 1:00 PM **A34** **Using Artificial Intelligence: Deep Learning for Human Decomposition Staging**
*Anna-Maria Nau, BA**; Phillip Ditto, BA*; Audris Mockus, PhD; Dawnie W. Steadman, PhD
- 11:30 AM – 1:00 PM **A35** **Testing Decomposition Scoring Methods at FOREST in Cullowhee, North Carolina**
*Leilah Melerine**; Rebecca L. George, PhD; Nicholas V. Passalacqua, PhD
- 11:30 AM – 1:00 PM **A36** **It's a Dry Heat: Testing Existing Postmortem Interval (PMI) Equations in Clark County, Nevada**
*Dayanira Lopez, MS**; Clair Ralston, PhD; Jennifer F. Byrnes, PhD
- 11:30 AM – 1:00 PM **A37** **Postmortem Interval in the Pacific Northwest—King County, Washington**
*Kiana C. Miller, BS**; Andrew C. Seidel, PhD
- 11:30 AM – 1:00 PM **A38** **A Drop in the Bucket: An Analysis of Southwest Florida Weather Station Variables to Inform Postmortem Interval**
*Savanna Agilar, MS**; Micki Besse, MS; Heather A. Walsh-Haney, PhD

ANTHROPOLOGY

- 11:30 AM – 1:00 PM **A39** **Under the Weather: A Report of Faunal Scavenger Activity During Major Weather Systems Within a Taphonomic Facility in Southwest Florida**
Micki Besse, MS;* *Savanna Agilar, MS;* *Heather A. Walsh-Haney, PhD*
- 11:30 AM – 1:00 PM **A40** **Exploring the Scavenging Behavior of Bobcats, *Lynx Rufus*, in the Middle Tennessee Area and Its Forensic Implications**
Yangseung Jeong, PhD; *Aaron Gatewood**
- 11:30 AM – 1:00 PM **A41** **A Longitudinal Observation of Pattern and Trajectory of Packrat Scavenging Among a Cohort of Human Donors**
*Christiane I. Baigent, MSc**
- 11:30 AM – 1:00 PM **A42** **Multiple Scavenging Agents: The Effect of Termite and Canine Scavenging on Forensic Cases in Northern Thailand**
Sittiporn Ruengdit;* *Sangob Sanit;* *Kwankamol Limsopatham*
- 11:30 AM – 1:00 PM **A43** **Soft Tissue Scavenging Patterns of Mice on Human Remains**
*Alexander J. Smith, BA**
- 11:30 AM – 1:00 PM **A44** **Corpse Concealment by Use of a Foundry Furnace: An Experimental Study on a Swine Carcass**
Matteo D'Angiolillo, MD;* *Ilaria Grasso, MD;* *Alessandro Bonsignore, MD, PhD;*
Francesca Frigiolini, MD; *Francesco Ventura, MD, PhD;* *Camilla Tettamanti, MD, PhD*
- 11:30 AM – 1:00 PM **A45** **Determining Forensic Significance: Pilot Observations of the Taphonomic Patterning of Greek-Orthodox Cemetery Inhumations in Cyprus**
Samantha Cohen, MRes, BA;* *Xenia Paula Kyriakou, PhD*
- 11:30 AM – 1:00 PM **A46** **The Resilience of Cut Mark Characteristics: An Experimental Study on the Effect of Corrosive Chemicals**
Maisy Jordan, MSc;* *Matteo Borrini, PhD, MS**
- 11:30 AM – 1:00 PM **A47** **The Resilience of Cut Mark Characteristics: An Experimental Study on the Effect of Fire Exposure**
Katie Griffiths, BSc, MSc; *Matteo Borrini, PhD, MS**
- 11:30 AM – 1:00 PM **A48** **In Full or in Part: The Effect of Incomplete Remains on Trauma Analysis**
Hailey Scacciaferro, BS;* *Savanna Agilar, MS;* *Micki Besse, MS;* *Heather A. Walsh-Haney, PhD*
- 11:30 AM – 1:00 PM **A49** **A Case Presentation of Fractures to the Wrists and Hands in a Suicide and Homicide**
Tuesday M. Frasier, MS;* *Erin H. Kimmerle, PhD*
- 11:30 AM – 1:00 PM **A50** **Tibia Size and the Contribution to Variance in Fracture Outcomes**
Angela L. Harden, PhD;* *Kyra Stull, PhD;* *Yun-Seok Kang, PhD;* *Amanda M. Agnew, PhD*
- 11:30 AM – 1:00 PM **A51** **An Analysis of Lower Extremity Fracture Patterning in Fatal Motor Vehicle Collisions**
Lillian S. Antonelli, BS;* *Jered B. Cornelison, PhD;* *Christine M. Pink, PhD*
- 11:30 AM – 1:00 PM **A52** **Establishing a Skeletal Atlas of Elder Abuse: An Examination of the Relationship Between Bone Density and Skeletal Fractures in Accidental Falls and Suspected Abuse**
Emelia Jensen; *Kaitlyn J. Fulp, MA;* *Jacob A. Harris, PhD;* *Jane E. Buikstra, PhD;*
Laura C. Fulginiti, PhD; *Katelyn L. Bolhofner, PhD**
- 11:30 AM – 1:00 PM **A53** **Assessing Variability in Kerf Floor Shape Utilizing a Revised Set of Shape Categories**
Meghan M. Gast, BS;* *Alexis L. VanBaarle, MS;* *Ann L. Braverman;* *Heather M. Garvin, PhD*

ANTHROPOLOGY

11:30 AM – 1:00 PM	A54	A Comparison of Fatal and Non-Fatal Postcranial Gunshot Wounds <i>Sam W. Coberly, PhD*</i>
11:30 AM – 1:00 PM	A55	The Patterning of Fracture Characteristics in Gunshot Wounds in Long Bones <i>Alexandra Semma Tamayo, MSc*; Laure Spake, PhD</i>
11:30 AM – 1:00 PM	A56	An Analysis of Bevel Angle in Gunshot Trauma to Long Bones <i>Devin L. Adcox, MA*; Ashley Kendell, PhD; Eric J. Bartelink, PhD</i>
11:30 AM – 1:00 PM	A57	A Comparison Between Full Metal Jacket and Hollow Point Projectile Effects on Bone <i>Joe Adserias-Garriga*; Roberto Escudero-Izquierdo</i>
11:30 AM – 1:00 PM	A58	Antemortem Trauma and Trauma Reporting in the Texas State Donated Skeletal Collection <i>Theresa M. De Cree, MS, BA*; Emma M. Giacomello, MA; Katie Gerstner, MA; Elizabeth Moore, MA; Michelle D. Hamilton, PhD</i>

Thursday—Session I

Achieving Justice for All: The Evolving Role of Forensic Anthropology

Moderator: Derek, Boyd, PhD

Co-Moderator: Liam Johnson, MA

8:30 AM – 8:45 AM	A59	Standards Development in Forensic Anthropology: Updates From the OSAC and ASB <i>Eric J. Bartelink, PhD*; Julie M. Fleischman, PhD; Wendy E.P. McQuade, PhD</i>
8:45 AM – 9:00 AM	A60	Assessing the Place and Feasibility of Activism and Advocacy in Forensic Anthropology <i>Sadie R. Friend, BS*</i>
9:00 AM – 9:15 AM	A61	ForensicAnthroTok: The Depiction of Forensic Anthropology on TikTok <i>Donovan M. Adams, PhD*; C M. Trent, MA; Jasper K. Sharpless, BA</i>
9:15 AM – 9:30 AM	A62	Forensic Anthropology and Structural Vulnerability in Casework <i>Jaymelee Kim, PhD*; Allysha P. Winburn, PhD</i>
9:30 AM – 9:45 AM	A63	Justice for All Missing: The Mississippi Repository for Missing and Unidentified Persons <i>Jesse R. Goliath, PhD*; Jordan Lynton Cox, PhD; Elise J. Adams, BA</i>
9:45 AM – 10:00 AM	A64	The Cold Case Initiative: Bringing Cases Up to Current Investigative Standards <i>Erin H. Kimmerle, PhD*</i>
10:00 AM – 10:15 AM	A65	The East Marshall Street Well Project: Community-Driven Research to Restore Identity and Dignity <i>Tal Simmons, PhD*</i>
10:15 AM – 10:30 AM	A66	Mapping Medicolegal Disparities and Indigenizing Harm Reduction Strategies for Missing and Murdered Indigenous Persons in Idaho <i>Juliette Bedard, BA*; Samantha H. Blatt, PhD; Patricia N. Morales Lorenzo, BS; Jake R. Shields, MS, BS; Trace Miles; Bailey Bates</i>
10:30 AM – 10:45 AM		BREAK

ANTHROPOLOGY

Personal Identification Through Imaging and Radiography

Moderator: Joan Baker, PhD

Co-Moderator: Jordan Roberson, BS

- 10:45 AM – 11:00 AM **A67** **The Validity of Radiographic Comparisons: Preliminary Findings by Body Region**
*Jennifer F. Byrnes, PhD**; *Timothy P. Gocha, PhD*; *Alan Farahani*; *Amanda Dolan*;
Taylor M. Flaherty, MSc; *Emma M. Giacomello, MA*; *Tessa M. Herbert, BS*;
SaMoura Horsley, BA; *Mariah E. Moe, BS, MA*; *Thomas J. Monticello*; *James R. Sernas*
- 11:00 AM – 11:15 AM **A68** **A Part-to-Part Comparative Analysis to Assess Intra-Individual Similarity and Inter-Level Distinctions for Personal Identification**
*Summer J. Decker, PhD**; *Daniel W. Martin, MD*; *Zackery Beauchamp, MD*; *Guy Ratty, MBE*;
Jonathan M. Ford, PhD, LLM
- 11:15 AM – 11:30 AM **A69** **Automated Comparative Chest Radiography Using Deep Neural Networks**
*Carolyn V. Isaac, PhD**; *Redwan Sony, MSc*; *Clara J. Devota, BS, MA*; *Alexis L. VanBaarle, MS*;
Todd Fenton, PhD, MA; *Joe T. Hefner, PhD*; *Arun Ross, PhD*
- 11:30 AM – 11:45 AM **A70** **Visual Comparisons of Frontal Sinus Radiographs: Documenting Accuracy and Exploring the Effects of Experience**
*Heather M. Garvin, PhD**; *Jessica L. Campbell, PhD*; *Lauren Butaric, PhD*
- 11:45 AM – 12:00 PM **A71** **Investigating Variation in Trabecular and Cortical Bone Structure Due to Mobility Impairment: A Natural Experiment in Reduced Loading**
*Devora S. Gleiber, MA**
- 12:00 PM – 1:15 PM **BREAK**

Advancements in Cranial Identification

Moderator: Ellen Fricano, PhD

Co-Moderator: Kewal Krishan, PhD

- 1:15 PM – 1:30 PM **A72** **Facial Photo-Anthropometry for the Exclusion of Candidates Under Non-Restrictive Photographic Conditions**
*Oscar Ibáñez Panizo, PhD**; *Pilar Navarro, BSc*; *Valentino Lugli, BSc*; *Andrea Valsecchi, PhD*;
María A. Guativonza; *Verónica Martínez*; *Guillermo Ramírez*; *Rosario Guerra Martí*;
Inmaculada Alemán, PhD
- 1:30 PM – 1:45 PM **A73** **Correlations of Facial Soft Tissue Thicknesses With Craniometric Dimensions to Improve Craniofacial Identification Estimates: Fact or Fiction?**
*Te Wai Pounamu Telená Hona, BBiomedSc**; *Carl Stephan, PhD*
- 1:45 PM – 2:00 PM **A74** **Facial Soft Tissue Thickness and the Positional Relationship of Hard and Soft Tissue in a United States Postmortem CT Sample, the New Mexico Decedent Image Database (NMDID)**
*Rosario Guerra Martí**; *María A. Guativonza*; *Verónica Martínez*; *Guillermo Ramírez*;
Oscar Ibáñez Panizo, PhD; *Andrea Valsecchi, PhD*; *Enrique Bermejo, PhD*;
Alejandro Manzanares; *Antonio David Villegas, MSc, BS*; *Fernando Navarro, PhD*;
Inmaculada Alemán, PhD
- 2:00 PM – 2:15 PM **A75** **The Latest Advancements in Craniofacial Superimposition Using Artificial Intelligence**
*Oscar Ibáñez Panizo, PhD**; *Praxedes Martinez, MSc*; *Pilar Navarro, BSc*; *Valentino Lugli, BSc*;
Andrea Valsecchi, PhD; *Rosario Guerra Martí*; *María A. Guativonza*; *Verónica Martínez*;
Guillermo Ramírez; *Pablo Mesejo Santiago, PhD*; *Sergio Damas, PhD*
- 2:15 PM – 2:30 PM **BREAK**

ANTHROPOLOGY

Reconsidering Sex Estimation Methods

Moderator: Carolyn Isaac, PhD

Co-Moderator: Kathryn Baustian, PhD

- 2:30 PM – 2:45 PM **A76** **Sex Estimation Methods in Forensic Anthropology: Current Practice and Trends**
*Alexandra R. Klales, PhD**; *Kate M. Lesciotto, JD, PhD*
- 2:45 PM – 3:00 PM **A77** **A Test of the Applicability of Decision Trees for Sex Estimation Utilizing an Expanded Suite of Morphological Traits**
*Morgan J. Ferrell, MA**; *John J. Schultz, PhD*; *Donovan M. Adams, PhD*
- 3:00 PM – 3:15 PM **A78** **An Exploration of the Subadult Pelvic Sex Estimation Method Using Pelvic Metrics and Geometric Morphometrics**
*Leah E. Auchter, MA**; *Kyra Stull, PhD*; *Heather M. Garvin, PhD*
- 3:15 PM – 3:30 PM **A79** **Sex Estimation From Mandibular Morphometry Using a Discriminant Analysis–CT Scan-Based Retrospective Study**
*Siddhartha Das, MBBS, MD**
- 3:30 PM – 3:45 PM **A80** **Increasing Transparency in Sex Estimation From the Skull by Monitoring Variation in Decision-Making Patterns**
*Nicole Mantl, MSc, MPhil**; *Sherry Nakhaeizadeh, PhD*; *Ruth M. Morgan, MA, DPhil*
- 3:45 PM – 4:00 PM **A81** **Combining Metric and Morphological Traits for Sex Estimation: A Pilot Study Using the Innominate**
*Kate M. Lesciotto, JD, PhD**; *Alexandra R. Klales, PhD*; *Michael Price*
- 4:00 PM – 4:15 PM **BREAK**

Bone Chemistry and Isotopes

Moderator: Tiffany Saul, PhD

Co-Moderator: Helen Brandt-Litavec, MS

- 4:15 PM – 4:30 PM **A82** **The Impact of Chemical Maceration on Elemental Concentrations and ⁸⁷Sr/⁸⁶Sr Values in Bone**
*Julianne J. Sarancha, MS**; *Gwyneth Gordon, PhD*
- 4:30 PM – 4:45 PM **A83** **The Use of Multi-Isotopes for Geoprofiling Unidentified Decedents to Assist Law Enforcement Agencies in the United States**
*Liotta N. Dowdy, BS, MA**; *Gennifer M. Goad, BA, MA*; *Anthony Menicucci, PhD*; *George Kamenov, PhD*; *Erin H. Kimmerle, PhD*
- 4:45 PM – 5:00 PM **A84** **Origins and Isoscapes: A Reassessment of Oxygen and Strontium Isotopic Data for Human Identifications in North America**
*Kirsten A. Verostick, PhD**; *Chris Stantis*; *Alejandro Serna, PhD*; *Gabriel Bowen, PhD*
- 5:00 PM – 5:15 PM **A85** **Isotopic Taphonomy: A Critical Review of the Effects of Diagenesis on Human Tissues Used for Stable Isotope Analysis**
*Shelby Hard, BA**
- 5:15 PM – 5:30 PM **A86** **The Impacts of Chronic Opioid Exposure on Bone Biomechanical Parameters**
*Sydney Q. Chizmeshya, BA**; *Janna M. Andronowski, PhD*

ANTHROPOLOGY

Thursday—Session II

The Right to the Truth I: Analysis of Commingled Remains for Conflict Resolution in Humanitarian Forensics

Moderator: Xenia Paula Kyriakou, PhD

Co-Moderator: Julie Evo, MSFS

- 1:00 PM – 1:15 PM **A87** **The Right to the Truth: A Multimodal Investigation of Mass Graves and an Analysis of Commingled Remains for Conflict Resolution in Humanitarian Forensics**
*Xenia Paula Kyriakou, PhD**; *Nicholas V. Passalacqua, PhD*; *Matthieu Baudelet, PhD*
- 1:15 PM – 1:30 PM **A88** **The Use of Computational Methods in Assessing Legacy Databases of Commingled Remains and Reconstructing Stratigraphic Relationships**
*Chris Mavromatis, PhD**; *Xenia Paula Kyriakou, PhD*
- 1:30 PM – 1:45 PM **A89** **A Case From “EL TUBO”: An Analysis of Commingled and Highly Fragmented Skeletal Remains Recovered From an Abandoned Water Exploration Well in Northeastern Mexico**
*Nicole Lambacher**; *Caterina Raffone*; *Benito Ramos-González*; *Sandra Sostaric*; *Francisco Etxeberria Gabilondo*
- 1:45 PM – 2:00 PM **A90** **The Reassociation of Disparate Elements at a Human Decomposition Facility**
*Rebecca L. George, PhD**; *Reagan Baechle, BS*; *Autumn J. Hall*
- 2:00 PM – 2:15 PM **A91** **De-Commingling the Past—When an Attempt to Resolve Misidentifications Results in Setbacks: The Tihovici Case**
*Sandra Sostaric**; *Bojana Tomasevic*; *Samra Terzic*; *Almir Olovacic*; *Beisa Talic*
- 2:15 PM – 2:30 PM **A92** **Matching Antimeres: Prospects and Limitations of Statistical Methods for the Reassociation of Commingled Left and Right Humeri**
*Erica Baer, PhD, MS**; *Xenia Paula Kyriakou, PhD*
- 2:30 PM – 2:45 PM **A93** **The Chemical Reassociation of Commingled Remains Via Laser-Induced Breakdown Spectroscopy**
*Kristen Livingston, BS**; *Katie Zejdlik, PhD*; *Jonathan Bethard, PhD*; *Matthieu Baudelet, PhD*
- 2:45 PM – 3:00 PM **A94** **Don’t Forget About ME: How Material Evidence Can Inform (or Complicate) Commingling From the Battle of Tarawa**
*Allison M. Campo, MA**; *Rylan Tegtmeyer Hawke, PhD*
- 3:00 PM – 3:15 PM **BREAK**

The Right to the Truth II: Multimodal Investigation of Mass Graves and Clandestine Burials

Moderator: Xenia Paula Kyriakou, PhD

Co-Moderator: Julie Evo, MSFS

- 3:15 PM – 3:30 PM **A95** **Preliminary Longitudinal GPR Data on an Experimental Secondary Mass Grave at the ARISTA Forensic Taphonomy Facility**
*Coen Nienaber, MA, BA**; *Xenia Paula Kyriakou, PhD*
- 3:30 PM – 3:45 PM **A96** **The Dirt on DNA: Utilizing Soil as Evidence of Clandestine Burials and Mass Graves**
*Meradeth H. Snow, PhD**
- 3:45 PM – 4:00 PM **A97** **The Multidisciplinary Resolution of American Military Casualties From the Korean War**
*Julie Evo, MS**; *Veronica A. Keyes, MD*; *Matthew C. Go, PhD*; *Esther H. Choo, MS, BA*; *Paulina Dominguez Acosta, MA*; *Krystal Estrada, MSc*; *Amanda N. Friend, PhD*; *Amanda R. Hale, MA*; *Reshma Satish, MS*; *Melissa Menschel, MS*

ANTHROPOLOGY

- 4:00 PM – 4:15 PM **A98** **The Role of Starvation in the Underestimation of Living Stature From Skeletal Remains**
*Maryann Hobbs**; *Rylan Tegtmeyer Hawke, PhD*
- 4:15 PM – 4:30 PM **A99** **Mass Graves: An Analysis of Injuries and Causes of Death**
*Nermin Sarajlic, MD, PhD**
- 4:30 PM – 5:00 PM **QUESTIONS AND ANSWERS**

Friday

Poster Session

- 11:30 AM – 1:00 PM **A100** **Substance Misuse, Stress, and Sternal Rib End Morphology: Implications for Forensic Age Estimation**
*Christine M. Pink, PhD**
- 11:30 AM – 1:00 PM **A101** **Aging Increases Regional Variation in the Pore Morphometry of Human Ribs**
*Mary E. Cole, PhD**; *Yun-Seok Kang, PhD*; *Amanda M. Agnew, PhD*
- 11:30 AM – 1:00 PM **A102** **Testing a Novel Method for Estimating Adult Age at Death From the First Rib in Forensic Casework**
*Amy Joy Spies, PhD**; *Kaitlyn J. Fulp, MA*; *Laura C. Fulginiti, PhD*
- 11:30 AM – 1:00 PM **A103** **The Utility of Deciduous Dental Microstructures in Forensic Anthropology**
*Marin Pilloud, PhD**; *Christopher Aris, PhD*; *Emily Smith, MA*
- 11:30 AM – 1:00 PM **A104** **Dental Age Estimator Performance Relative to Weighted Kappa: A Simulation Study**
*Valerie Sgheiza, MA, MS**; *Helen M. Liversidge*
- 11:30 AM – 1:00 PM **A105** **Estimating Age in Adults Using Measurements of Dental Radiographs: A Validation of the Kvall Method**
*Katherine Skorpinski, MA**; *Laura E. Cirillo, PhD*
- 11:30 AM – 1:00 PM **A106** **Innominate Weight Over the Lifespan: A Method for Estimating Age From the Pelvis**
*Andrea M. Zurek-Ost, PhD**; *Mark Sorensen, PhD*
- 11:30 AM – 1:00 PM **A107** **An Age-at-Death Estimation From Pubic Bone Mineral Density on Postmortem CTs**
*Eulalie Pefferkorn**; *Fabrice Dedouit, MD, PhD*; *Agathe Bascou, MD*; *Pauline Saint Martin, PhD*; *Norbert Telmon, MD, PhD*; *Frederic Savall, MD, PhD*
- 11:30 AM – 1:00 PM **A108** **Decoding Age-at-Death With DNA Methyloomics: A Cutting-Edge Approach for Forensic Analysis of Skeletal Remains**
*Luke William Gent, BSc**; *Noemi Procopio, PhD*; *Edward Schwalbe*
- 11:30 AM – 1:00 PM **A109** **Intra-Skeletal Variation in Lower Limb Microstructure for Histological Age Estimation**
*Victoria M. Dominguez, PhD**; *Bailey A.G. Colohan*
- 11:30 AM – 1:00 PM **A110** **Introducing OA-TA: A New Tool for Adult Age-at-Death Estimation Using Osteoarthritis of the Synovial Joints**
*Michala K. Stock, PhD**; *Ariana N. Strasheim, MA, BA*; *Allysha P. Winburn, PhD*

ANTHROPOLOGY

- 11:30 AM – 1:00 PM **A111** **Validating Population Affinity Method Platforms for Macromorphoscopic Traits in Specific 20th-Century Contexts**
*Cortney N. Hulse, PhD**; *Amanda N. Friend, PhD*; *Amanda R. Hale, MA*; *Abigail K. Kindler, MA*; *Rebecca J. Taylor, PhD*
- 11:30 AM – 1:00 PM **A112** **A Comparison of Ancestry-Specific Versus Ancestry-Independent Stature Estimation**
*Rylan Tegtmeyer Hawke, PhD**; *Laura E. Cirillo, PhD*; *Katie Whitmore, PhD*; *Lara E. McCormick, PhD*; *Abigail Kindler, MA*; *Emily S. Tarbet Hust, MA*
- 11:30 AM – 1:00 PM **A113** **Evaluating the Prevalence of Torus Mandibularis and Torus Palatinus in Relation to Ancestry, Sex, and Age in a Modern Skeletal Sample**
*Alex F. Wong, MS, BA**; *Amandine Eriksen, PhD*; *Stephen Nawrocki, PhD*
- 11:30 AM – 1:00 PM **A114** **How Do Agencies Use Biological Profile Data? A Pilot Study Investigating Stakeholder Engagement With Forensic Anthropological Estimates**
*Samantha M. McCrane, PhD**; *Allysha P. Winburn, PhD*; *Amanda N. Friend, PhD*
- 11:30 AM – 1:00 PM **A115** **Assessing the Reliability of the DSP2 Software for Skeletal Sex Assessment in a Modern Italian Reference Collection From Syracuse, Sicily**
*Henrietta Vita**; *Constantine Eliopoulos, PhD*; *Matteo Borrini, PhD, MS**
- 11:30 AM – 1:00 PM **A116** **Sex Estimation of Modern Greek-Cypriots Utilizing Measurements of the Calcaneus and Talus**
*Anelis Diaz, MA, BS**; *Georgia Hennessy**; *Erica Baer, PhD, MS*; *Xenia Paula Kyriakou, PhD*
- 11:30 AM – 1:00 PM **A117** **Sexual Dimorphism in the Human Mandible: The Application of 3D Statistical Shape Modeling**
*Yu-Young Kim, MS**; *Kang-Woo Lee, PhD*; *Kyung-Seok Hu, DDS, PhD*
- 11:30 AM – 1:00 PM **A118** **The Ontogenetic Development of the Preauricular Sulcus and Its Utility in Estimating Sex in Children and Young Adults With Considerations for Pregnancy and Parturition**
*Stephanie J. Cole, PhD**; *Marin Pilloud, PhD*; *Kyra Stull, PhD*
- 11:30 AM – 1:00 PM **A119** **The Utility of the Maxillary Sinus in Estimating Biological Sex in a Modern American Population**
*Abigail Elaine Houkes, MA**
- 11:30 AM – 1:00 PM **A120** **Translating Results: Accessing Accuracy Within Sex Estimation Methods From the Biological Profile**
*McKenzie Macon, BAS**; *Cris E. Hughes, PhD*
- 11:30 AM – 1:00 PM **A121** **Creating Continuity: The Proper Handling of Unprovenanced, and Unidentified, Legacy Forensic Cases and Prevention of Future Mishandling**
*Chelsey A. Juarez, PhD**; *Alison Galloway, PhD*
- 11:30 AM – 1:00 PM **A122** **Identification Trends in Forensic Anthropology Cases at the New Mexico Office of the Medical Investigator**
*Nicollette S. Appel, MS**; *Cris E. Hughes, PhD*; *Paige Lynch, MS*
- 11:30 AM – 1:00 PM **A123** **Forensic Anthropology Casework and Outreach: 50 Years of Operational Trends for Chico State's Human Identification Laboratory**
*Colleen Milligan, PhD**; *Eric J. Bartelink, PhD*; *Shannon Clinkinbeard, MA*; *Cheyenne D. Collins, MA*; *Ashley Kendell, PhD*; *Taylor Lambrigger, MA*; *P. Willey, PhD*
- 11:30 AM – 1:00 PM **A124** **The Evolution of Forensic Anthropological Casework: Exemplifying the Importance of Routine Reanalysis of Long-Term Unidentified Remains at the Forensic Anthropology Center at Texas State (FACTS)**
*Emilie Wiedenmeyer, MA**; *Theresa M. De Cree, MS, BA*; *Michelle D. Hamilton, PhD*

ANTHROPOLOGY

- 11:30 AM – 1:00 PM **A125** **A Comparison of Forensic Anthropology Casework Across Two Urban, Midwest Medical Examiner Offices, 2013–2021**
*Erin B. Waxenbaum, PhD**; *Lindsay H. Trammell, PhD*; *Anne Grauer, PhD*
- 11:30 AM – 1:00 PM **A126** **Introducing the Forensic Science Research and Training Laboratory (FSRTL), a New Forensic Anthropology Research Facility at George Mason University**
*An-Di Yim, PhD**; *Emily D. Rancourt, MS*; *Joseph A. DiZinno, DDS*; *Brian Eckenrode, PhD*; *Kimberly Rule, MS*; *Christopher Durac, MS, BS*; *Mary E. O’Toole, PhD, MA*
- 11:30 AM – 1:00 PM **A127** **Stakeholder Perspectives and End-of-Life Planning: The Future for Body Farms, Donation Programs, and Student Development**
*Natalie S. Wise, BA**; *Erin H. Kimmerle, PhD*
- 11:30 AM – 1:00 PM **A128** **The Forensic Taphonomy Education and Research Facility: An Interdisciplinary Educational and Professional Resource**
*Sophia I. Reck, MA**; *Ginesse A. Listi, PhD*
- 11:30 AM – 1:00 PM **A129** **WITHDRAWN**

Rexamining the Biological Profile

Moderator: Heather Walsh-Haney, PhD

Co-Moderator: Anthony Lanfranchi, MS

- 8:45 AM – 9:00 AM **A130** **Considerations for Age Estimation Accuracy: Method-Derived Outcomes and Practitioner Interpretations**
*Cris E. Hughes, PhD**; *Chelsey A. Juarez, PhD*; *An-Di Yim, PhD*
- 9:00 AM – 9:15 AM **A131** **A Regression-Based Machine Learning Framework for Adult Skeletal Age Estimation**
*Eugenia Cunha, PhD**; *David Navega, PhD*
- 9:15 AM – 9:30 AM **A132** **Cranial Masculinization: How Age Progression Affects the Accuracy of Sex Estimations in Adults**
*Lyndsey Hornagold**; *Samantha Shipley, MS**; *Erin H. Kimmerle, PhD*
- 9:30 AM – 9:45 AM **A133** **Unaccompanied Minors Automatic Forensic Age Estimation (UMAF AE): Applying Artificial Intelligence-Based Methods to Estimate Legal Age in Undocumented Minors**
*Stefano De Luca**; *Javier Venema Rodríguez, MSc*; *Pablo Mesejo Santiago, PhD*; *Oscar Ibáñez Panizo, PhD*
- 9:45 AM – 10:00 AM **A134** **Macroscopic Differences in Adult Human Femora Are Linked to Body Mass Index**
*Daniel Wescott, PhD**; *Elaine Y. Chu, MA*; *Adam D. Sylvester, PhD*; *Wojciech Zbijewski*; *Gengxin Shi*; *Lauren A. Meckel, PhD*; *Deborah L. Cunningham, PhD*
- 10:00 AM – 10:15 AM **A135** **A Critical Validation of Dental Morphology as a Method of Ancestry Estimation in a Historical Forensic Context**
*Laura E. Cirillo, PhD**; *Rylan Tegtmeyer Hawke, PhD*; *Rebecca J. Taylor, PhD*
- 10:15 AM – 10:30 AM **BREAK**

ANTHROPOLOGY

PMI and Taphonomy

Moderator: Lauren Pharr Parks, PhD

Co-Moderator: Micayla Spiros, MS

- 10:30 AM – 10:45 AM **A136** **. . . and There Were Only Teeth: Postmortem Interval Estimation Based on XRD and FTIR**
*Sara C. Zapico, PhD**; *Juan Suárez, PhD*; *Stella Martín de las Heras, MD, PhD*;
Leticia Rubio, MD, PhD
- 10:45 AM – 11:00 AM **A137** **geoFOR: A Forensic Taphonomy Database for PMI Estimation Using a Machine Learning Model**
*Katherine E. Weisensee, PhD**; *Madeline Atwell, PhD*; *Cristina I. Tica, PhD*; *Carl Ehrett, PhD, BS*;
Dane Smith, PhD; *Patricia Carbajales-Dale, MS, Beng*; *Patrick J. Claffin*; *Noah A. Nisbet*
- 11:00 AM – 11:15 AM **A138** **Skeletal Element Recovery Rates From Outdoor Surface Contexts in Louisiana**
*Ginesse A. Listi, PhD**
- 11:15 AM – 11:30 AM **A139** **Small but Mighty: A Controlled Observation of Magpie Scavenging Among a Cohort of Human Remains in the Rocky Mountain Region of Colorado**
*Christiane I. Baigent, MSc**
- 11:30 AM – 11:45 AM **A140** **The Scavenging and Scattering of Remains: An Experiment to Inform Forensic Practice**
*Lara Indra, MSc**; *Valentin Moser, MSc*; *Marco Milella, PhD*; *Sandra Lösch, PhD*
- 11:45 AM – 12:00 PM **A141** **The Fluvial Transport of Human Remains: Forensic Application of a HEC-RAS Model for Predicting Search Parameters for Human Remains Recovered From the Sacramento River, California**
*Eric J. Bartelink, PhD**; *Colleen Milligan, PhD*; *Steffen Mehl, PhD*; *Erik Fintel, BA*
- 12:00 PM – 1:15 PM **BREAK**

Trauma Assessment and Application

Moderator: Mari Isa, PhD

Co-Moderator: Claire Eichen, BA

- 1:15 PM – 1:30 PM **A142** **Standards for Analyzing Skeletal Trauma in Forensic Anthropology**
*Donna C. Boyd, PhD**; *Julie M. Fleischman, PhD*; *Carolyn V. Isaac, PhD*; *Jade S. De La Paz, PhD*
- 1:30 PM – 1:45 PM **A143** **The Use of Outline Analyses to Assess Kerf Floor Shape Patterns in Saw Marks**
*Alexis L. VanBaarle, MS**
- 1:45 PM – 2:00 PM **A144** **Deep Learning Models for Fracture Detection and Segmentation in Bone Histology**
*Carolyn V. Isaac, PhD**; *Redwan Sony, MSc*; *Clara J. Devota, BS, MA*; *Alexis L. VanBaarle, MS*;
Arun Ross, PhD
- 2:00 PM – 2:15 PM **A145** **Unexpected Antemortem and Perimortem Rib Fractures in Infants Without Other Significant Injuries**
*Erin Chapman, PhD**; *Katherine Maloney, MD*; *Tara Mahar, MD*
- 2:15 PM – 2:30 PM **A146** **Whole Body Fracture Patterns From Blunt Force Trauma Vary Within Similar Experimental Loading Events**
*Amanda M. Agnew, PhD**; *Angela L. Harden, PhD*; *Yun-Seok Kang, PhD*; *John H. Bolte, PhD, MSc*

ANTHROPOLOGY

- 2:30 PM – 2:45 PM **A147** **Structural Violence in Orleans Parish, Louisiana: Implications for Forensic Anthropological Casework**
*Krista E. Bennett, MA**; *Sophia I. Reck, MA*; *Ginesse A. Listi, PhD*; *Emily F. Michon, MA*;
Teresa V. Wilson, PhD
- 2:45 PM – 3:00 PM **A148** **Skeletal Trauma in Suicide Cases (2017–2018) in Puerto Rico After Hurricane Maria**
*Gabriela I. Rios Santiago, MS**; *Maria Teresa Ferreira, PhD*; *Sofia N. Wasterlain, PhD*
- 3:00 PM – 3:15 PM **BREAK**

Human Rights and Global Perspectives in Forensic Anthropology

Moderator: Amanda Williams, PhD

Co-Moderator: Dayanira Lopez, MS

- 3:15 PM – 3:30 PM **A149** **An Analysis and Reconstruction of Remains From a World War II Mass Grave in the Szpęgawski Forest, Poland**
*Joanna Wysocka, MSc**; *Dawid Kobińska, PhD*
- 3:30 PM – 3:45 PM **A150** **The Latin American Association of Forensic Anthropology (ALAF): 20 Years of Development**
*Luis Fondevibrer, PhD**
- 3:45 PM – 4:00 PM **A151** **Missing Persons in Argentina: The Age Progression Technique to Support Non-Profit Organizations in the Search for the Lost**
*Laura Donato**; *Luigi Tonino Marsella*; *Marcela Lerda*; *Michele Treglia*; *Rossana Cecchi, MD*
- 4:00 PM – 4:15 PM **A152** **The Role of Forensic Anthropology in Long-Term Missing Persons Cases in Scotland**
*Catriona Davies, PhD, BSc**; *Lucina Hackman, PhD*; *Helen Langstaff, PhD*; *Diana Swales, PhD*
- 4:15 PM – 4:30 PM **A153** **FORDISC® and AncesTrees: Limitations and Considerations for the Identification of Individuals From Central and South America**
*Hannah G. Messersmith, BSc**; *Julieta Gómez García-Donas, JD, PhD*
- 4:30 PM – 4:45 PM **A154** **The Forensic Border Coalition South Texas Cemetery Survey: Insights From a Forensic Science and Humanitarian Effort Addressing Unidentified Burials and Unidentified Remains**
*Kate Spradley, PhD**; *Christine M. Kovic, PhD*; *Mercedes Doretti*; *Robin C. Reineke, PhD*;
Molly Miranker, PhD; *Molly A. Kaplan, MA*; *Rachel Daniell, PhD*
- 4:45 PM – 5:00 PM **A155** **Shifting Routes: Expanding Migrant Decedent Identification Efforts in Texas**
*Molly A. Kaplan, MA**; *Courtney C. Siegert, MA, PhD*; *Chloe P. McDaniel, MA*;
Ivanna Robledo, MA; *Kate Spradley, PhD*
- 5:00 PM – 5:15 PM **A156** **Necrosilence: GIS Visualizations of Migrant Mortality in South Texas, 2009–2020**
*Molly Miranker, PhD**; *Alberto Giordano, PhD*

CRIMINALISTICS

Wednesday

Poster Session

- 11:30 AM – 1:00 PM **B1** **What's In It For Me (WIIFM)?: Streamlining Sexual Assault Evidence From Collection to Analysis to Achieve the Best Outcome for the Survivor**
Fernanda Henry, BSc, MSc; Joy Quinlan, BSc; Valerie Mattimore Fuller, PhD, BS; Alikar Compton, BSc*
- 11:30 AM – 1:00 PM **B2** **The Remains of the Crime: An Assessment of Body Fluid Identification Over Time**
Francisco Medina Paz, PhD; Brandon L. Kuba, BS; Emily Kryvorutsky; M. Gabriela Roca, MSc, PhD; Sara C. Zapico, PhD*
- 11:30 AM – 1:00 PM **B3** **Dry Vacuum Recovery of DNA From Fabric**
Emily Sam-Zee-Moi, BS; Mechthild Prinz, MS, PhD*
- 11:30 AM – 1:00 PM **B4** **An Initial Investigation of the Applied Biosystems® SeqStudio™ Genetic Analyzer for Human Identification Purposes**
Brayleigh Keefe, BS; Megan Foley, MSFS; Nicole Novroski; Fabio Oldoni, PhD*
- 11:30 AM – 1:00 PM **B5** **A Morphological and Genetic Characterization of the Psychoactive Species *Psilocybe Cubensis* From Forensic Samples**
Ivana Horjan Zanki; Adela Makar, PhD; Andrea Ledić*
- 11:30 AM – 1:00 PM **B6** **The Persistence of Wearer DNA on Clothing After Laundering**
Rachel Breitenstein, MS; Shawn Montpetit, MS; Ismail M. Sebetan, MD, PhD*; Paul Stein, PhD**
- 11:30 AM – 1:00 PM **B7** **A Multi-Species Reference Ladder Using Two PCR Multiplexes for the Rapid Identification of Most Domestic Animals for Forensic Purposes**
*Vallarie Ostenson, MS; Lindsey Kaufman, MS; DeEtta Mills, PhD**
- 11:30 AM – 1:00 PM **B8** **Advancing Semen Detection Techniques With Sperm Tracker STK® in Real Case Scenarios and Diverse Environments**
Monica Omedei, PhD; Selena Cisana, PhD; Aurora Desogus; Giorgia Ferrero; Florian Tharin; Paolo Garofano, PhD; Eugenio Alladio*
- 11:30 AM – 1:00 PM **B9** **Into the "Sexome": Genital Microbiome Transfer and Applications**
Julia Wang, BS, MS; Rachel Houston, PhD; Sheree R. Hughes, BSc, PhD; Brendan Chapman; Ruby Dixon, BS*
- 11:30 AM – 1:00 PM **B10** **The Adaptation, Optimization, and Validation of a Semi-Automated DNase I-Based Differential Extraction Procedure on the Beckman Coulter Biomek NX^P Automation Workstation**
Susan A. Greenspoon, PhD; William Eggleston, PhD; Cathryn Shannon, BS, MS*
- 11:30 AM – 1:00 PM **B11** **From Tecan to Hamilton: Material Modification of Applied Biosystems™ PrepFiler™ Automated Extraction**
Cristina L. Servidio, MFS; Rachel H. Oefelein, MSc; Brittany Stirmell, MSFS*
- 11:30 AM – 1:00 PM **B12** **An Evaluation of the Effectiveness of Flow Cytometry in Sperm Testing in Mixed Semen Specimen**
Fang Chun Chung; Chun-Yen Lin; Kuan-Miao Yeh; Yeh-Lin Lu; Chun Changou*

CRIMINALISTICS

11:30 AM – 1:00 PM	B13	An Examination of Vaginal Swab Cross-Reactivity in Presumptive Saliva Testing <i>Emily Wiesen, MS, BS*</i>
11:30 AM – 1:00 PM	B14	Mitochondrial DNA Sequencing for Forensic Human Identification in a Saudi Arabian Context <i>Dina Al Oraer, PhD*</i>
11:30 AM – 1:00 PM	B15	An Application of Chemometrics-Assisted ATR/FTIR Spectroscopy for the Identification of Human Biological Stains Exposed to Different Environmental Conditions and Estimation of the Time Since Deposition <i>Anna Barbaro, PhD*; Cristina Cano; Fernando E. Ortega-Ojeda; Carmen García-Ruiz; Gemma Montalvo</i>
11:30 AM – 1:00 PM	B16	Cellular Autofluorescence for the Determination of Time Since Deposition of Blood Samples <i>Hannah Elizabeth Lamer, BS*; Christopher Ehrhardt, PhD, BS; Catherine Cupples Cannon, PhD, MSFS; Susan A. Greenspoon, PhD</i>
11:30 AM – 1:00 PM	B17	The Accuracy of Semen Presumptive Testing <i>Heather Rogers*; Rhonda Williams, PhD</i>
11:30 AM – 1:00 PM	B18	The Developmental Validation Testing of the Integrated Quantifiler™ Trio-HRM Assay <i>Chastyn Smith*; Edward Boone, PhD; Tracey Dawson Green, PhD</i>
11:30 AM – 1:00 PM	B19	A Qualitative Analysis of Natural, Synthetic, and Semi-Synthetic Cannabinoids in Vape Products by GC/MS <i>Mikayla Siegfried*; Joshua S. DeBord, PhD; Alex J. Krotulski, PhD; Heather L. Harris, MFS, JD</i>
11:30 AM – 1:00 PM	B20	Quantifying Cannabinoids in Complex Matrices <i>Michael W. Gilbert, BS; Reta Newman, MA*</i>
11:30 AM – 1:00 PM	B21	Seized Drugs: Carrier Gas Conversion of Helium to Hydrogen for GC/MS and GC/IR Instruments <i>Cody Woltz*; Sadie Kasten*</i>
11:30 AM – 1:00 PM	B22	The Structural Characterization of Nitazene Analogs Using Electron Ionization/Mass Spectrometry (EI/MS) <i>Emma Hardwick, BA*; J. Tyler Davidson, PhD</i>
11:30 AM – 1:00 PM	B24	The Loss of Latent Fingerprint Visual Quality: Natural Degradation vs. Depletion Series <i>Josep De Alcaraz-Fossoul, PhD*</i>
11:30 AM – 1:00 PM	B25	The Optimized Separation of Cannabis Terpenes/Terpenoids Via GC/EI/MS <i>Kristina Martinet*; James V. DeFrancesco, PhD; Emma Humphreys, BS</i>
11:30 AM – 1:00 PM	B26	The Quantitation of Furanocoumarins in Grapefruit Supplements Using High-Performance Liquid Chromatography <i>Nequa Griffin, MSFS*; Ellen H. Hondrogiannis, PhD</i>
11:30 AM – 1:00 PM	B27	Ag-Ligand Ion Complexation: An Alternative Approach for Hemp and Marijuana Differentiation <i>Alleigh N. Couch, BS*; Jayleigh M. Lanza, BS; Christopher M. Zall, PhD; J. Tyler Davidson, PhD</i>
11:30 AM – 1:00 PM	B28	A Workflow for the Rapid Analysis of Trace Drug Residues Collected From Used Paraphernalia <i>Meghan G. Appley, PhD*; Elizabeth Robinson, MS; Edward Sisco, PhD</i>

CRIMINALISTICS

- 11:30 AM – 1:00 PM **B29** **A Homemade Bomb Mistaken for a Terroristic Attack: A Variety of Forensic Analyses Can Help Substantiate the Investigations**
*Irene Pradelle, MD**; *Michele Carpinteri, MD*; *Laura Camilla Gasparini, MD*; *Luca Diani, MD*; *Giada Rovito, MD*; *Margherita Neri, MD PhD*
- 11:30 AM – 1:00 PM **B30** **Hidden Traces: An Alternative Analytical Scheme for Seized Drug Analysis**
*J. Tyler Davidson, PhD**; *Alleigh N. Couch, BS*
- 11:30 AM – 1:00 PM **B31** **Matricide: When Psycho-Social Fragilities Lead to Murder**
*Laura Camilla Gasparini, MD**; *Michele Carpinteri, MD*; *Giada Rovito, MD*; *Luca Diani, MD*; *Irene Pradelle, MD*; *Matteo Fabbri, PhD, MSc*; *Matteo Marti*; *Rosa M. Gaudio, MD, PhD*; *Raffaella Marino, MD*; *Letizia Alfieri, MD*; *Margherita Neri, MD, PhD*
- 11:30 AM – 1:00 PM **B32** **Quantitation of Lysergic Acid Diethylamide (LSD) Using HPTLC**
*Tori Schaffer, BS, MSFS**; *Sandra E. Rodriguez-Cruz, PhD*; *Jeanne R. Berk, PhD, LLB*; *Thomas A. Brettell, MS, PhD*
- 11:30 AM – 1:00 PM **B33** **Reviewing the Utility of Fentanyl Test Strips for the Screening of Seized Drugs**
*Annie Myshak, BS, MFS**; *Ira Saul Lurie, PhD*; *Alexandra Evans, MFS, BS*; *Bailey Jones, MSFS*; *Ashley N. Stallworth, MS*
- 11:30 AM – 1:00 PM **B34** **The Odor Behind a Shot: Chemical Characterization of Volatiles From Ammunition**
*Salem Danielle Smith**; *Paola A. Prada-Tiedemann, PhD*
- 11:30 AM – 1:00 PM **B56** **Toxic Adulterant Prevalence in the United States Illicit Drug Supply: Geographical Trends and Raising Awareness Regarding Their Dangers to Promote Public Health**
*Mia Borrelli, MS, BS**; *Melissa F. Hehir*; *Trisha Conti*; *Ryan Farrell*; *Nicole Lattanzio, MSFS*; *Sarah A. Shuda, MSFS*; *Amanda L.A. Mohr, MS*; *Thom Browne, MA*; *Barry K. Logan, PhD*

Thursday

Poster Session

- 11:30 AM – 1:00 PM **B23** **The Effect of Solid Copper Bullets on Barrel Rifling Characteristics**
*Natali Hassett, BS**; *Eric Law, PhD*
- 11:30 AM – 1:00 PM **B35** **An Analysis of Improved Methods for the Genetic Identification of Cremated Skeletal Remains**
*Kadir Dastan**
- 11:30 AM – 1:00 PM **B36** **An Examination of the E22 Connect Fx for Extra-Large Volume DNA Extraction and Purification From Skeletal Samples**
*Jennifer L. Snedeker, BS**; *Sheree R. Hughes, BSc, PhD*; *Rachel Houston, PhD*
- 11:30 AM – 1:00 PM **B37** **The Development of a Custom qPCR Multiplex to Quantify Human and Microbial DNA**
*Miriam Foster**; *Mitchell M. Holland, PhD*; *Jennifer McElhoe*
- 11:30 AM – 1:00 PM **B38** **The Reassociation of Highly Degraded Human Remains Found in the East Marshall Street Well Using Insertion/Null Genotyping**
*Sierra Laveroni**; *Andrea Malchow**; *Daniela Frausto, MS*; *Michelle M. Woo, MS, BS*; *Baneshwar Singh, PhD*; *Filipa Simao*; *Tal Simmons, PhD*
- 11:30 AM – 1:00 PM **B39** **An Overview of Cannabis Seizures and Methods for Distinguishing Between Cannabis and Hemp in Croatia**
*Slavena Cukrov Bezbradica, PhD**; *Lucija Barbarić, PhD*; *Kristina Jurković, PhD*; *Adela Makar, PhD*; *Maja Jelena Čop, PhD*; *Andrea Ledić*

CRIMINALISTICS

11:30 AM – 1:00 PM	B40	An Efficient Alternative to the Conventional Bone Pulverization Step for Personal Identification in 11 Real Forensic Caseworks <i>Chiara Della Rocca, PhD*</i> ; <i>Gavino Piras</i> ; <i>Alessandro Mameli</i>
11:30 AM – 1:00 PM	B41	Investigative Single Cell Genetics: Determining the Probability of a Genotype After Observing Single-Cell Data Enables Robust Database Searches Regardless of Mixture Complexity <i>Qhawe A. Bhembe, MS*</i> ; <i>Nidhi Sheth, MS</i> ; <i>Leah M. O'Donnell, BSc, MSc</i> ; <i>Ken R. Duffy, PhD</i> ; <i>Desmond S. Lun, PhD</i> ; <i>Catherine M. Grgicak, PhD</i>
11:30 AM – 1:00 PM	B42	Locus Abundance Variation by ForenSeq™ DNA Signature Prep Kit Lot <i>Kim Eskey, MS, BS*</i> ; <i>Kyleen Elwick, PhD</i> ; <i>Sana Enke</i> ; <i>Claire Levy</i> ; <i>Marie Lovett</i> ; <i>April Manzella, BA</i> ; <i>Christina Scott, MS, BA</i> ; <i>Rebecca S. Just, PhD</i>
11:30 AM – 1:00 PM	B43	Genotyping Strategies for Tissues Fixed With Various Embalming Fluids for Human Identification, Databasing, and Traceability <i>Cassidy Callaway*</i> ; <i>Madeline Ashton, BSc</i> ; <i>Natalia Czado, BS, MSFS</i> ; <i>Sheree R. Hughes, BSc, PhD</i>
11:30 AM – 1:00 PM	B44	The Development of a Facial Phenotype Prediction Method Using Korean 3D Craniofacial Images and SNPs <i>Won Joon Lee</i> ; <i>Joon Yeol Ryu*</i> ; <i>Hyobong Jang*</i> ; <i>Eunseo Park</i> ; <i>Eunsoon Shin</i> ; <i>Sohee Cho, PhD</i> ; <i>Jong Eun Lee</i> ; <i>Soong Deok Lee, MD, PhD</i>
11:30 AM – 1:00 PM	B45	The Development of Reagents, Software, and a Database for Kinship Determination in Missing Persons, Disaster Victims, and Human Rights Violation Cases <i>Gothami A. Padmabandu, MS*</i> ; <i>Joana Antunes, PhD</i> ; <i>Sarah M. Radecke</i> ; <i>Michaela Russo</i> ; <i>Erin McCarthy, BS</i> ; <i>Juan Carlos Perez, BS</i> ; <i>Kathryn M. Stephens, PhD</i>
11:30 AM – 1:00 PM	B46	A 353-Plex Panel for Forensic Identification Based on Massively Parallel Sequencing Technology <i>Yingying Cheng*</i> ; <i>Qiujuan Wang, PhD</i> ; <i>Dong Li</i> ; <i>Bowen Li</i> ; <i>Shengjie Gao</i> ; <i>Kunjie Pang, MS, BS</i> ; <i>Xianhua Jiang</i> ; <i>Hongqi Wang</i> ; <i>Xiaosen Guo*</i>
11:30 AM – 1:00 PM	B47	Differentiating Marijuana From Hemp Using an NGS Panel and Rapid Genotyping Assays Targeting Cannabinoid Synthase Genes <i>Ya-Chih (Jessica) Cheng, MS*</i> ; <i>Rachel Houston, PhD</i>
11:30 AM – 1:00 PM	B48	Challenges of DNA Profiling After Firefighting Plane Crash: The Influence of Kerosene Biodegradation on Human Remains <i>Francesco Sessa, MS, PhD*</i> ; <i>Martina Francaviglia, MD</i> ; <i>Giuseppe Cocimano, MD</i> ; <i>Salvatore Rocuzzo, MD</i>
11:30 AM – 1:00 PM	B49	The Development of a Multiplex SNP Genotyping RT-PCR Kit for Screening of Non-Koreans <i>Seyoung Nam*</i> ; <i>Si-Keun Lim</i> ; <i>Yukyounng Sin</i>
11:30 AM – 1:00 PM	B50	The Utilization of a Single Nucleotide Variant (SNV) Panel for the Confirmation of Sample Identity in Two Clinical Genomics Applications <i>Mariana Voudouri, MD*</i> ; <i>Donald Green, BS</i> ; <i>Sophie Deharvengt</i> ; <i>Joel Lefferts, PhD</i> ; <i>Wahab A. Khan, PhD</i> ; <i>Parth Shah, MD</i>
11:30 AM – 1:00 PM	B51	Examining the Risk Associated With Qualitative Exclusions in Forensic DNA Casework <i>Samantha Orans Wandzek, MS*</i>
11:30 AM – 1:00 PM	B52	STRBase Moving Forward <i>Lisa A. Borsuk*</i> ; <i>Angela Lee</i> ; <i>Peter Vallone, PhD</i>

CRIMINALISTICS

- 11:30 AM – 1:00 PM **B53** **Ten Years of Developing and Improving CSI Camps, Forensic Science Educational Conferences, and Science Museum Programs Toward Enhancing Interest, Attitudes, and Motivation in Forensic Science**
*Steven B. Lee, PhD**; *Mark Okuda, MS*; *Bruce R. McCord, PhD*; *Sara C. Zapico, PhD*;
Sharon L. Plotkin, EdD; *Margie Phipps, MS*; *Analisa Duran, MS*; *Mary Juno, MSc*
- 11:30 AM – 1:00 PM **B54** **A Longitudinal Study on the Odor Stability of Decomposition Simulated Training Aids Under Freezing Conditions**
*Jonathan Bateman Locke**; *Andrea Medrano, MS, BS*; *Paola A. Prada-Tiedemann, MS, BS*;
Chris Holleyman
- 11:30 AM – 1:00 PM **B55** **A Pre-Concentrating Polymer Coating for Improved Detection of Fentanyl and Fentanyl Analogs**
*Galpayage Dona Thouli Lochana Jayawardana, BSc**; *Lauryn DeGreeff, PhD*;
Ashley Fulton, PhD; *Braden C. Giordano, PhD*
- 11:30 AM – 1:00 PM **B57** **An Analysis of Plant Fragments Using X-Ray Fluorescence Spectrometry and X-Ray Absorption Fine Structure Technique Utilizing Synchrotron Radiation**
*Suzuha Kurosugi**; *Yoshinori Nishiwaki*; *Masanobu Mori*
- 11:30 AM – 1:00 PM **B58** **An Analysis of Single Synthetic Fibers by Metallic Components in Dyes by Nanobeam X-Ray Fluorescence Imaging and X-Ray Absorption Fine Structure Technique Utilizing Synchrotron Radiation**
*Keita Miyazaki, BA**; *Yoshinori Nishiwaki*; *Masanobu Mori*
- 11:30 AM – 1:00 PM **B59** **The Application of the Expert Algorithm for Substance Identification (EASI) to the Mass Spectra of Various Bath Salts (Synthetic Cathinones)**
*Glen P. Jackson, PhD**; *Alexandra I. Adeoye, MS*; *Jessica Orris, BS*; *Clarissa McQuain*;
Stephen P. Hokanson, BS
- 11:30 AM – 1:00 PM **B60** **An Assessment of a Combined Field-Portable Raman Spectroscopy and Gas Chromatography/Mass Spectrometry Approach for the Analysis of Seized Drugs**
*Christina Chang, BS**; *Geraldine Monjardez, PhD*; *J. Tyler Davidson, PhD*
- 11:30 AM – 1:00 PM **B61** **An Assessment of Odorant Permeability for Canine Training Aid Mimics in Different Containers Utilizing HS/SPME-GC/MS**
*Kayla Hogan, BS**; *Katherine Dias Castro, BS*; *Janet M. Crespo Cajigas, MS, BS*;
Lauryn DeGreeff, PhD; *Kenneth G. Furton, PhD*
- 11:30 AM – 1:00 PM **B62** **Color, Monogram, and Physical Measurements of Illicitly Manufactured Fentanyl Tablet Exhibits Seized Along the United States Southwestern Border**
*Joshua William Kotchey, MS, BA**; *Joshua S. DeBord, PhD*; *Sarah A. Shuda, MSFS*;
Mia Borrelli, MS, BS; *Amanda L.A. Mohr, MS*; *M.J. Menendez, JD*; *Thom Browne, MA*;
Barry K. Logan, PhD
- 11:30 AM – 1:00 PM **B63** **The Detection of Airborne Methamphetamine in Contaminated Properties and Vehicles Using Active Air Sampling With Liquid Chromatography/Mass Spectrometry (LC/MS)**
*Gemma L. Kerry**; *Emma J. Kuhn, BSc*, *Jackie Wright, PhD*; *Kirstin E. Ross, PhD, BSc*;
Stewart Walker, PhD, BSc
- 11:30 AM – 1:00 PM **B64** **The Development of a Gas Chromatography/Mass Spectrometry/Selected Ion Monitoring (GC/MS/SIM) Method for Analyzing Adulterated Nitazene Samples**
*Alexa Mehlman**; *Alexandra Evans, MFS, BS*; *Ashley N. Stallworth, MS*

CRIMINALISTICS

11:30 AM – 1:00 PM	B65	The Development of a Novel Nanocomposite Using Polypyrrole and Single-Walled Carbon Nanotubes for Headspace Solid Phase Microextraction of Alkanes in Forensic Ignitable Liquid Analysis <i>Ting-Yu Huang, MS*; Jorn Yu, PhD</i>
11:30 AM – 1:00 PM	B66	Enhanced Ignitable Liquid and Substrate Database Functionality for Improved Casework and Research <i>Michael E. Sigman, PhD*; Nikhil Prakash, MS*; Mary R. Williams, MSc; Larry Tang, PhD</i>
11:30 AM – 1:00 PM	B67	An Estimation of Dyeing Methods From Wool Single Fibers by Nanobeam X-Ray Fluorescence Imaging Utilizing Synchrotron Radiation <i>Yoshinori Nishiwaki*</i>
11:30 AM – 1:00 PM	B68	How to Minimize the Presence of Drug Residues on the Exterior of Drug Evidence Packaging After Analysis <i>Elizabeth Robinson, MS*; Edward Sisco, PhD; Rebecca Mead, MS</i>
11:30 AM – 1:00 PM	B69	The Identification and Classification of Major Cannabinoids Using Raman Microscopy, Chemometrics, and a Novel Artificial Intelligence Approach <i>John Hugo Laetsch, BS*; Jose Grijalva, MS; Ting-Yu Huang, MS; Patrick Buzzini, PhD; Jorn Yu, PhD; J. Tyler Davidson, PhD; Geraldine Monjardez, PhD</i>
11:30 AM – 1:00 PM	B70	One Gunshot Is Not Enough: A Case of Suicide by Double Gunshot Wound to the Head and a Literature Review <i>Eleonora Mezzetti, MD*; Federica Spina, MD; Laura Panata, MD; Isabella Mercurio, MD; Massimo Lancia, MD; Marco Di Paolo, MD</i>
11:30 AM – 1:00 PM	B71	The Optimization of Sample Preparation Procedures for the Determination of Δ^9-THC and Its Isomers in Seized Cannabis Oils, Concentrates, and Vapes by LC-PDA <i>Walter B. Wilson, PhD*</i>
11:30 AM – 1:00 PM	B72	WITHDRAWN

Thursday—Session I

Standards, Policies, and Surveys

Moderator: Charlotte Word, PhD

8:45 AM – 9:00 AM	B73	Standards Development Activities in Human Forensic Biology <i>Jillian Conte, PhD*</i>
9:00 AM – 9:15 AM	B74	Human Factors in Forensic DNA Handbook Recommendations in Practice <i>Tiffany A. Roy, BS, JD, MSFS*; Sasha B. Colvin, BS*</i>
9:15 AM – 9:30 AM	B75	Speak Now: To Be a Part of the People That Make Meaning <i>Nancy Dinh, BS, MS*</i>
9:30 AM – 9:45 AM	B76	Processing Gun Crimes in NYC: How the Department of Forensic Biology Was Able to Meet a 30-Day Turnaround Time <i>Craig O. O'Connor, PhD*; Katey Nori, MSFS</i>

CRIMINALISTICS

9:45 AM – 10:00 AM **B77** **A Global Survey on Activity-Level DNA Evaluative Reporting**
*Devyn Pirtle, BS**; *Mechthild Prinz, MS, PhD*; *Fabio Oldoni, PhD*

10:00 AM – 10:15 AM **BREAK**

Trace and Touch DNA

Moderator: Robin Cotton, PhD

Co-Moderator: Kristy Kadash, PhD

10:15 AM – 10:30 AM **B78** **An Investigation of Handling Time on the Deposition and Persistence of Trace DNA in Pickpocket Scenarios**
*Lauren Hoopes, BS**; *Tiffany A. Kreidler, BS*; *Bas Kokshoorn, PhD*; *Fabio Oldoni, PhD*

10:30 AM – 10:45 AM **B79** **An Evaluation of Transfer, Persistence, and Recovery of Touch DNA From Mobile Phones**
*Ashley J. Moo-Choy, MSc**; *Jamie E. McGregor, HBSc*; *Nicole Novroski*

10:45 AM – 11:00 AM **B80** **The Design of a Protocol for Detecting Trace DNA From Skin-to-Skin Contact in a Mock Physical Assault Scenario**
*McKenna Bonn-Savage, BS**; *Bas Kokshoorn, PhD*; *Megan Foley, MSFS*; *Fabio Oldoni, PhD*

11:00 AM – 11:15 AM **B81** **Direct PCR Amplification for Forensic DNA Profiling From Adhesive Tape-Lift Samples**
*Kevin W.Y. Chong, PhD**; *Hui Yin Tan*

11:15 AM – 11:30 AM **B82** **The Success Rate of Touch DNA**
*Jill Snyder**; *Kaitlyn M. Adams**

11:30 AM – 11:45 AM **B83** **Total Human DNA Sampling**
*Colino Neves**; *Martin Zieger, PhD*

11:45 AM – 12:00 PM **B84** **A Combined Method to Locate and Improve DNA Recovery From Fabrics**
*Makenzie Michelle Driever, BS**; *Rhonda Williams, PhD*

12:00 PM – 1:00 PM **BREAK**

Body Fluid ID

Moderator: Amy Brodeur, MFS

1:00 PM – 1:15 PM **B85** **The Identification of MicroRNAs for Forensic Biofluid Detection Using a MicroRNA Expression Profiling Method**
*Xiaomeng Yang, MS**; *Amy N. Brodeur, MFS*; *Robin W. Cotton, PhD*; *Isabel Luisa Tan Palanca, MS*

1:15 PM – 1:30 PM **B86** **A Microfluidic Approach Toward Automated Forensic Differential Extraction of DNA-Based Sexual Assault Evidence**
*Larissa L. Cunha, BS**; *M. Shane Woolf*; *Sadie Kiendzior, BS*; *Kelsey O'Neill, BS*; *Ellaha Momand, BS*; *James P. Landers, PhD*

1:30 PM – 1:45 PM **B87** **A Comparative Analysis of Swabbing Solutions for Sexual Assault Evidence: The Direct Impact on Spermatozoa and DNA Recovery**
*Olivia Quinn Kassie, BS**; *Sarah Seashols Williams, PhD*; *Laura Gaydosh Combs, PhD*

1:45 PM – 2:00 PM **B88** **The Discovery of Additional Male-Specific Protein Markers in Semen: Potential Applications for the Processing of Sexual Assault Evidence**
*Glendon Parker, PhD**; *Kyle Burk, MSc*; *Mirna Ghemrawi, PhD, MSFS*

CRIMINALISTICS

2:00 PM – 2:15 PM	B89	A Portable Microfluidic System for Rapid Serological Analysis of Forensically Relevant Body Fluids <i>Taylor Grace Chambers, PhD*</i> ; Larissa L. Cunha, BS; Renna L. Nouwairi, BS; Tiffany Layne, PhD; Liam Barry, MS; Rachel Flemming, PhD; James P. Landers, PhD
2:15 PM – 2:30 PM	B90	To Test or Not to Test for Body Fluids: The Integration of Body Fluid Identification and Direct PCR in One Workflow <i>Sara C. Zapico, PhD*</i> ; Francisco Medina Paz, PhD; Christian Stadler, PhD; M. Gabriela Roca, MSc, PhD; Santina Castriciano, BS
2:30 PM – 2:45 PM	B91	The Development of a Novel Multiomic Assay for Biofluid Identification <i>Amy N. Brodeur, MFS*</i> ; Angela Proctor, PhD; David Korest, BS
2:45 PM – 3:00 PM	B92	A Comparison of Traditional Serological Techniques and DNA Methylation for the Identification of Body Fluids <i>Mirna Ghemrawi, PhD, MSFS*</i> ; Justin Frye, MSFB; Lindsay Loughner Kotchey, MS; Leah Nangeroni, BS
3:00 PM – 3:15 PM	B93	Alternative Direct-to-Amplification Cell Lysis Techniques for Forensically Relevant Non-Sperm Cells <i>Rhea Arya*</i> ; Brittany C. Hudson; Tracey Dawson Green, PhD
3:15 PM – 3:30 PM		BREAK

FIGG, Ancestry, Predictive Modeling

Moderator: Baneshwar Singh, PhD

Co-Moderator: Amelia Bussell, MSFS

3:30 PM – 3:45 PM	B94	Decoding the Ocular Region From DNA: Building Predictive Models in Forensic Contexts <i>Belen Navarro Lopez, MS*</i> ; Victoria Suarez-Ulloa, PhD; Ruben Martos-Fernandez, PhD; Miriam Baeta Bafalluy, PhD; Oscar Ibáñez Panizo, PhD; Rebeca Guerrero; Begoña Martínez Jarreta, MD; Susana Jimenez Moreno, MD; Marian M. de Pancorbo, PhD
3:45 PM – 4:00 PM	B95	Targeted SNP Typing for Forensic Genetic Genealogy Using Hybridization Capture <i>Rebecca S. Just, PhD*</i> ; Sana Enke; Karla Y. Garcia, PSM, BS; Rebecca Mitchell, PhD; Michelle P. Ackermann, MS
4:00 PM – 4:15 PM	B96	Genetic Ancestry of the Unidentified Human Remains From the East Marshall Street Well <i>Filipa Simao*</i> ; Baneshwar Singh, PhD; Tal Simmons, PhD
4:15 PM – 4:30 PM	B97	Estimating the Return on Investment on Forensic Investigative Genetic Genealogy: Using the Golden State Killer and the University of Idaho Cases as Case Models <i>Ray A. Wickenheiser, DPS, MBA*</i> ; Rachel H. Oefelein, MSc; Swathi A. Kumar, PhD
4:30 PM – 4:45 PM	B98	A Comparative Evaluation of Illumina® Global Screening Array BeadChip, Whole Genome Sequencing, and Verogen™ ForenSeq™ Kintelligence to Analyze Degraded and Low Template DNA Extracted From Semen <i>Sarah Cavanaugh, MSFS*</i> ; Madalyn Bowers, BS; Robert Bever, PhD; Jonathan Davoren, MSc

CRIMINALISTICS

Thursday—Session II

Standards Development and Related Activities Strengthening Forensic Science

Moderator: Carmen Masters, MSFS

8:30 AM – 8:45 AM	B99	Advances in Canine Science and the Implementation of National Standards <i>Kelvin J. Frank, PhD, MSFS*</i> ; <i>Kenneth G. Furton, PhD</i>
8:45 AM – 9:00 AM	B100	Current and Future Standards Development Activities Related to the Analysis of Seized Drugs <i>Agnes D. Winokur, MS*</i>
9:00 AM – 9:15 AM	B101	Firearms and Toolmarks Standards and Best Practices: A Collaboration of the NIST OSAC and AAFS Standards Board <i>Robert M. Sanger, BA, JD*</i> ; <i>Xiaoyu A. Zheng, MS</i>
9:15 AM – 9:30 AM	B102	OSAC Is Ten Years Old—What Will the Next Decade Bring? <i>Mark D. Stolorow, MS, MBA*</i> ; <i>John Paul Jones, BS, MBA*</i>
9:30 AM – 9:45 AM	B103	Results From an Interlaboratory Study to Evaluate Analytical Schemes in ASTM E2329—Standard Practice for Identification of Seized Drugs <i>Jeremy S. Triplett, MS, BS*</i> ; <i>Michael J. Salyards, PhD, MFS</i> ; <i>Sandra E. Rodriguez-Cruz, PhD</i> ; <i>Jeremiah Morris, BS</i> ; <i>Megan Grabenauer, PhD</i> ; <i>Darryl Creel, MS</i>
9:45 AM – 10:00 AM	B104	Standards Development Activities in Trace Materials <i>Celeste M. Grover, MSFS*</i>
10:00 AM – 10:15 AM	B105	Standards Development Activities Related to Friction Ridge Examination <i>Heidi Eldridge, PhD, MS*</i> ; <i>Henry Swofford, PhD*</i>
10:15 AM – 10:30 AM	B106	Standards Development Activities Related to Ignitable Liquids, Explosives, and Gunshot Residue <i>Brenda B. Christy, MS*</i>
10:30 AM – 10:45 AM		BREAK

Forensic Science Principles

Moderator: Thaddeus Mostowtt, PhD

10:45 AM – 11:00 AM	B107	A 2024 Update From the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG) <i>Jaclyn Iera*</i>
11:00 AM – 11:15 AM	B108	The Forensic Science Initiative (FSI): A Pathway to College and STEM Education <i>David Fisher, MS*</i> ; <i>Barbara Elder Weller, EdD*</i> ; <i>Kevin D. Belfield, PhD</i> ; <i>Jacqueline L. Cusack, EdD</i>
11:15 AM – 11:30 AM	B109	What Is the Probability That a True Match Will Appear in the Top K Correlations After a Database Search? <i>Alicia Laura Carriquiry, PhD*</i> ; <i>Heike Hofmann, PhD</i> ; <i>Blanca I. Parker, BS</i> ; <i>Cathryn Barbour, BS</i>
11:30 AM – 11:45 AM	B110	The European Network of Forensic Science Institutes (ENFSI) Guideline for the Calculation of Measurement Uncertainty in Quantitative Forensic Investigation <i>Ivo Alberink, PhD*</i> ; <i>Rosario García-Repetto, PhD</i> ; <i>Maria Luisa Soria Sánchez, PhD</i> ; <i>Jos Tóth, BSc</i>

CRIMINALISTICS

11:45 AM – 1:00 PM

BREAK

Fire Debris and Explosives

Moderator: Tiffany Rodriguez, MS

1:00 PM – 1:15 PM

B111 **A Comparison of Computational and Laboratory-Generated Fire Debris Data**
*Larry Tang, PhD**; *Mary R. Williams, MSc*; *Michael E. Sigman, PhD*

1:15 PM – 1:30 PM

B112 **A Fire Debris Interpretation Using Quantitative Measures of Chromatographic Features in Medium-Range Ignitable Liquids and the Use of Graphical Display to Demonstrate Data Sufficiency**
*Kelsey R. Winters, MSFS**; *Brenda B. Christy, MS*

1:30 PM – 1:45 PM

B113 **An Evaluation of Headspace Solid Phase Microextraction of Diesel Fuel From Cotton Swabs for Forensic Analysis**
*Ting-Yu Huang, MS**; *Jorn Yu, PhD*

1:45 PM – 2:00 PM

B114 **An Evaluation of Tape for the Collection of Ignitable Liquid Residues From Non-Porous and Porous Surfaces**
*Laird Jarrett**; *Cynthia J. Kaeser Tran*

2:00 PM – 2:15 PM

B115 **Expert and AI Opinions: Machine-Assisted Analysis of Fire Debris**
*Michael E. Sigman, PhD**; *Mary R. Williams, MSc*; *Frances A. Whitehead, MS*

2:15 PM – 2:30 PM

B116 **Investigating the Capability of DART®-MS for the Analysis of Common Homemade Explosives**
*Jared Estevanes, BS**; *J. Tyler Davidson, PhD*; *Geraldine Monjardez, PhD*

2:30 PM – 3:00 PM

BREAK

Drugs

Moderator: Beth Saucier Goodspeed, MS

3:00 PM – 3:15 PM

B117 **Combining Surface-Enhanced Raman Spectroscopy (SERS) and Paper Spray-Mass Spectrometry (PS-MS) for Illicit Drug Detection and Identification**
*Sevde Dogruer Erkok, MSc**; *Roxanne Gallois*; *Leon Leegwater*; *Pascal Camoiras Gonzalez, MSc*; *Arian van Asten, PhD*; *Bruce R. McCord, PhD*

3:15 PM – 3:30 PM

B118 **Evaluating the Sensitivity, Stability, and Cross-Reactivity of Commercial Fentanyl Immunoassay Test Strips**
*Sandra E. Rodriguez-Cruz, PhD**

3:30 PM – 3:45 PM

B119 **Exploring Evidence of Common Origin of Recreational Drug Exhibits by GC/MS**
*Joshua S. DeBord, PhD**; *Barry K. Logan, PhD*; *Alex J. Krotulski, PhD*

3:45 PM – 4:00 PM

B120 **GC Derivative VUV Spectroscopy of JWH-018 Positional Isomers and Select Synthetic Cannabinoid Diastereomers**
*Annika Dombrowski, BS**; *Ira Saul Lurie, PhD*

4:00 PM – 4:15 PM

B121 **The Effect of Spectral Intensity on Mass Spectral Discrimination of Fentanyl Positional Isomers**
*Isaac C. Willis, BS**; *Victoria L. McGuffin, PhD*; *Ruth Waddell Smith, PhD*

CRIMINALISTICS

- 4:15 PM – 4:30 PM **B122** **The Classification of Cannabinoids Using Mass Spectral Data for the Identification of Novel Synthetic Cannabinoids**
Kristopher Charles Evans-Newman, AAS; Nuwan T. Perera, PhD; Garion Schneider*
- 4:30 PM – 4:45 PM **B123** **A Qualitative and Quantitative Analysis of Particulate Spread During Simulated Illicit Drug Manufacturing: Implications for Collection of Evidence and Crime Scene Safety**
Edward Sisco, PhD; Matthew Staymates, MS; Luis E. Arroyo, PhD*

Friday—Session I

Challenging Samples

Moderator: Sheree Hughes, PhD

- 9:00 AM – 9:15 AM **B124** **Streamlining the Extraction of Challenging Samples Using the HID NIMBUS® Presto**
Kayli Carrillo, BS; Jennifer Snedeker, BS; Natalia Czado, BS, MSFS; Sheree R. Hughes, BSc, PhD*
- 9:15 AM – 9:30 AM **B125** **The Effects of Oily Contaminants on DNA Extraction Efficiency Using DNA IQ™**
Elizabeth Grace Gillece, BS; Susan A. Greenspoon, PhD; William Eggleston, PhD*
- 9:30 AM – 9:45 AM **B126** **The Development of a Method for Complete Collagenase I Digestion of *Bos Taurus* Bone Samples**
Reilly Elizabeth Price, BA; Ciara Rhodes, BS; Sarah Seashols Williams, PhD*
- 9:45 AM – 10:00 AM **B127** **A Simple Tooth Preparation Method for the Applied Biosystems® RapidHIT™ ID Instrument**
Morgan Elizabeth Eaton, BS; Shane Woolf, MSFS, PhD; Samyuktha Pemmasani; Tracey Dawson Green, PhD*
- 10:00 AM – 10:15 AM **B128** **The Application of Ancient DNA Methodologies to Badly Burned Forensic Samples**
Cody E. Parker, PhD; Amber Coffman, BS; Erin M. Rawls, BS; Adam B. Rohrlach, PhD; Katelyn L. Bolhofner, PhD; Laura C. Fulginiti, PhD; Giovanna Vidoli, PhD; Joanne Devlin, PhD; Sree Kanthaswamy, PhD; Robert F. Oldt, BS; Anne Stone, PhD*
- 10:15 AM – 10:30 AM **B129** **A DNA Analysis of Degraded Skeletal Remains Obtained From the Petrous Bone, Tooth, Femur, Tibia, and Humerus: A Comparison Study**
*Kadir Dastan**
- 10:30 AM – 10:45 AM **BREAK**

Probabilistic Genotyping

Moderator: Kelly Knight, MS

- 10:45 AM – 11:00 AM **B130** **Comparing Likelihood Ratios of Degraded DNA Mixture Profiles Using DNA-View® Mixture Solution™**
Cameron Filipe, MSFS, BSFS; Charles H. Brenner, PhD; Robin W. Cotton, PhD*
- 11:00 AM – 11:15 AM **B131** **A Picture Is Worth 10,000 LR: The Evaluation and Implementation of Tools to Improve Interpretation and Reporting of Mixtures Using Probabilistic Genotyping**
Tim Kalafut, PhD; Michael Coble, PhD*
- 11:15 AM – 11:30 AM **B132** **A Comparison of the Two Most Widely Used Probabilistic Genotyping Systems Supports Accuracy and Concordance**
Susan A. Greenspoon, PhD; Brad Jenkins, BA, MS; Lisa Schiermeier-Wood, BS, MS*

CRIMINALISTICS

11:30 AM – 11:45 AM **B133** **Beyond STRs: A Snippet Into the Challenges of Interpreting iiSNPs**
Kevin Cheng, PhD, MSc; Jo-Anne Bright, PhD*

11:45 AM – 1:00 PM **BREAK**

Next Generation Sequencing

Moderator: Pamela Marshall, PhD

Co-Moderator: Stephen Gicale, MSFS

- 1:00 PM – 1:15 PM **B134** **An Evaluation of the FORCE Panel on Alternative Reference Materials**
Sophie S. Lee, BS; Lindsay Loughner Kotchey, MS; Leah Nangeroni, BS;*
Kimberly Sturk Andreaggi, PhD; Charla Marshall, PhD; Mirna Ghemrawi, PhD, MSFS
- 1:15 PM – 1:30 PM **B135** **Variant Allele Characterization in STR Markers Using Next Generation Sequencing**
Becky Steffen, MS; Lauren Mullen, BS; Grace M. Finch; Katherine Gettings, PhD;*
Kevin Kiesler, MS
- 1:30 PM – 1:45 PM **B136** **Streamlining Degraded Sample Processing in Forensic Laboratories: Developing a Decision Tree for Capillary Electrophoresis and Next Generation Sequencing Platforms**
Rachel Houston, PhD; Natalia Czado, BS, MSFS; Damani Johnson, BS;*
Lucio Avellaneda, BS; Cesar E. Cantu, BS; Sheree R. Hughes, BSc, PhD
- 1:45 PM – 2:00 PM **B137** **Maximum Recovery of DNA From Degraded Remains**
Erin M. Rawls, BS; Matthew V. Emery, PhD; Amber Coffman, BS; Stevie Winingear, BS, MS;*
Amanda Wissler, PhD; Katelyn L. Bolhofner, PhD; Jane E. Buikstra, PhD;
Laura C. Fulginiti, PhD; Adam B. Rohrlach, PhD; Cody E. Parker, PhD; Anne Stone, PhD
- 2:00 PM – 2:15 PM **B138** **An Assessment and Validation of the IDseek® mYSTR Reverse Complement PCR Technology for Y-Chromosomal STR Profiling Utilizing the MiSeq® FGx System**
Lindsay Loughner Kotchey, MS; Brian Young, PhD; Leah Nangeroni, BS;*
Mirna Ghemrawi, PhD, MSFS
- 2:15 PM – 2:30 PM **B139** **Visualizing Sequencing Artifacts in ForenSeq™ NGS Data**
Yao-Yuan Liu; Kevin Cheng, PhD, MSc; Jo-Anne Bright, PhD*
- 2:30 PM – 2:45 PM **B140** **Expanding the STRSeq BioProject to Support Sequenced-Based STR Nomenclature**
Lauren Mullen, BS; Katherine Gettings, PhD; Lisa A. Borsuk*
- 2:45 PM – 3:00 PM **B141** **An Exploration of a Sequence-Specific Stutter Model for STR Analysis in Next Generation Sequencing**
Damani Johnson, BS; Tim Kalafut, PhD*
- 3:00 PM – 3:15 PM **BREAK**

DNA Potpourri

Moderator: Fabio Oldoni, PhD

- 3:15 PM – 3:30 PM **B142** **Using the Chelation Filtration Method to Improve DNA Profile Recovery From Fired Cartridge Casings (FCCs) Prior to DNA Processing**
Karin A. Crenshaw; Ariana Harrison; Bruce R. McCord, PhD*

CRIMINALISTICS

- 3:30 PM – 3:45 PM **B143** **Evaluation of Single Cells Produces Highly Informative Forensic Comparisons Across Multifarious Admixtures**
*Catherine M. Grgicak, PhD**; *Desmond S. Lun, PhD*; *Nidhi Sheth, MS*; *Liliana Berrios, BS*; *Ken R. Duffy, PhD*
- 3:45 PM – 4:00 PM **B144** **Discovering the Mysteries About Degradation of Extracted DNA Stored in Different Conditions: Updates After 400 Days of Testings**
*Noemi Procopio, PhD, MSc**; *Luciano Garofano, PhD**; *Giulia Sguazzi, MA, BA*; *Selena Cisana, PhD*; *Paolo Garofano, MD, PhD*; *Pasquale Linarello*; *Monica Omedei, PhD*; *Luca Salvaderi, BSc*; *Sarah Gino, MD*
- 4:00 PM – 4:15 PM **B145** **Understanding the Stability of Environmental DNA (eDNA) From Four Biological Taxa and Their Association With Soil and Dust Evidence**
*Teresa Tiedge, MPS**; *Kelly A. Meiklejohn, PhD*
- 4:15 PM – 4:30 PM **B146** **A New Method for Determining Time-Since-Deposition of DNA Samples Containing Saliva and/or “Touch” Epidermal Cells**
*Thilini M. Chandrasekara, BSc**; *Dillon S. Ryder*; *Susan A. Greenspoon, PhD*; *Christopher Ehrhardt, PhD, BS*
- 4:30 PM – 4:45 PM **B147** **A Biological Survey of Nucleated vs. Non-Nucleated Epithelial Cells Within Touch DNA Samples Using Autofluorescence Profiling**
*Wanyan Cai**; *Sarah Seashols Williams, PhD*; *Amanda E. Gentry, PhD*; *Christopher Ehrhardt, PhD, BS*

Friday—Session II

Crime Scene and GSR

Moderator: Rebecca Wang, MS

- 9:00 AM – 9:15 AM **B148** **Proactive Crime Scene Response Improves Criminal Investigations**
*Ray A. Wickenheiser, DPS, MBA**
- 9:15 AM – 9:30 AM **B149** **An Interagency Study of Scene Investigation Using Virtual Reality (VR) Tools**
*Jaclynn McKay, BS**; *Kelly Keyes, BS*; *John H. Grassel, MS*; *Edward Hill, BS*; *Nicholas Thomas, PhD, MPH*
- 9:30 AM – 9:45 AM **B150** **The Presence of Inorganic Gunshot Residue (iGSR) in Police Vehicles: A Study at the Zagreb County Police Administration in Croatia**
*Sunčica Kuzmić, MChE**; *Hrvoje Senjes, MS*; *Ivan Jerković, PhD, MSc*
- 9:45 AM – 10:00 AM **B151** **The Prevalence of GSR and the Mitigating Quality Procedures at Harris County Institute of Forensic Sciences**
*Brittany S. Claassen, MS**; *Audrey Pless*; *Leslie A. Dixon, BS*; *Jason L. Schoeder, MS, MBA*
- 10:00 AM – 10:15 AM **B152** **Utilizing Gas Chromatography/Mass Spectrometry (GC/MS) to Determine the Effect of Solvent Extraction Parameters on Forensic Smokeless Powder Analysis**
*Leighann Rose Weber, BS**; *Kelli A. Simon, PhD*; *Ryan Bain, PhD*; *Eric Hazelrigg, MS*
- 10:15 AM – 10:30 AM **BREAK**

CRIMINALISTICS

Firearms

Moderator: TBD

- 10:30 AM – 10:45 AM **B153** **Advancements in 3D Technology and Virtual Comparison Microscopy for Ballistic Identification**
*Logan Eickhoff, BS, BA**
- 10:45 AM – 11:00 AM **B154** **Feature Similarity (FS) and Congruent Matching Features (CMF) Methods for Comparison of Impressed Toolmarks in Firearm Evidence Identification**
*Junfeng J. Song, PhD**
- 11:00 AM – 11:15 AM **B155** **The Impact Behavior of 9mm Jacketed Hollow Point Bullets on Laminated Glass**
Zoe Timothy, BS ; Michael Kusluski, MFS*
- 11:15 AM – 11:30 AM **B156** **The Interoperability of Firearm Toolmark 3D Measurements on Objective Similarity Metrics**
Xiaoyu A. Zheng, MS ; Johannes Soons, PhD ; James Yen, PhD*
- 11:30 AM – 11:45 AM **B157** **The Effect of Gunshot Angle of Incidence on Distance Determination**
Alexander W. Jason, MSFS ; Andres Marco, PhD, MS*
- 11:45 AM – 1:00 PM **BREAK**

Friction Ridge and Canines

Moderator: TBD

- 1:00 PM – 1:15 PM **B158** **A Needle in a Haystack: Are Those “Rare” Minutiae in Palms Really as Uncommon as You Think?**
*Heidi Eldridge, PhD, MS**
- 1:15 PM – 1:30 PM **B159** **Interdigital Frequencies of Pattern Types and Their Arrangements as a Key to Palm Print Identification**
Angela Tonietto, MS ; Jemima Santos*
- 1:30 PM – 1:45 PM **B160** **Toward Consistency in Latent Print Examiners’ Naming Conventions and Minutiae Frequency Estimations**
Adele Quigley-McBride, PhD ; Heidi Eldridge, PhD, MS* ; Brett Gardner, PhD**
- 1:45 PM – 2:00 PM **B161** **Not Everything Is as It Seems: The Importance of Minutiae**
Julia Lazzari, MD ; Giulia Berneschi, MD* ; Chiara Casula, MD ; Arianna Baronti, MD ; David Forni, MD ; Aniello Maiese, PhD ; Andrea Scatena, MD*
- 2:00 PM – 2:15 PM **B162** **Dog Bites or Knife Wounds? A Case Report of Atypical Neck Injuries**
Eulalie Pefferkorn ; Fabrice Dedouit, MD, PhD ; Frederic Savall, MD, PhD ; Agathe Bascou, MD ; Norbert Telmon, MD, PhD ; Pauline Saint Martin, PhD*
- 2:15 PM – 2:30 PM **B163** **Odor Contamination in Explosive Canine Training Aids and Steps Toward Contaminant Mitigation Through Off-Gassing**
Katherine Dias Castro, BS ; Lauryn DeGreeff, PhD ; Tyler Roberts ; Reagan M. Bridges ; Monica Lopez ; Jordi Cruz Sanchez*

CRIMINALISTICS

2:30 PM – 2:45 PM **B164** **An Improved Analysis of Nylon Microplastic Trace Evidence Through Enhanced Signal-to-Noise Ratio in Room-Temperature Fluorescence Spectroscopy**
Noah Michael Froelich, MS, BS; Andres D. Campiglia, PhD*

2:45 PM – 3:00 PM **BREAK**

Trace Evidence, Fibers, Soil, Paint, and Footwear

Moderator: TBD

3:00 PM – 3:15 PM **B165** **An Evaluation of a Comprehensive Raman Spectral Library for the Identification of Soil Minerals**
Jasmine Kaur; Chase Notari, MS; Brooke W. Kammrath, PhD*

3:15 PM – 3:30 PM **B166** **Pigment Identification in Solution-Dyed Fibers**
Christopher S. Palenik, MS, PhD; Kelly Beckert, MS, BS; Otyllia Abraham, MS, BS; Ethan Groves, BS; Skip Palenik, BS*

3:30 PM – 3:45 PM **B167** **Polarized Light Microscopy of Vegetable Fibers**
*Walter Frederick Rowe, PhD**

3:45 PM – 4:00 PM **B168** **The Application of Particle-Correlated Raman Spectroscopic Analysis of Soils to Mock Casework Scenarios**
Samantha Gong, BS; Brooke W. Kammrath, PhD; Marisia A. Fikiet, PhD; Peter R. De Forest, DCrim*

4:00 PM – 4:15 PM **B169** **The Capabilities and Limitations of Particle-Correlated Raman Spectroscopy (PCRS) for the Analysis Forensic Soil Minerals**
Jasmine Kaur; Joshua Christensen*; Ethan Groves, BS; Skip Palenik, BS; Christopher S. Palenik, MS, PhD; Peter R. De Forest, DCrim; Marisia A. Fikiet, PhD; Virginia M. Maxwell, DPhil, BSc; Brooke W. Kammrath, PhD*

4:15 PM – 4:30 PM **B170** **The Differentiation of Architectural Paint by Sheen Using Reflectance Spectroscopy**
Alethea Nicole Morris, BS; Lawrence Quarino, PhD*

4:30 PM – 4:45 PM **B171** **The NIST Footwear Impression Comparison System**
Steven Lund, PhD; Sourabh Yelluru, MS; Adam Pintar, PhD; Hariharan Iyer, PhD*

Saturday

Cannabis and Hemp

Moderator: Agnes Winokur, MS

9:00 AM – 9:15 AM **B172** **An Investigation of Extraction Protocols for the Analysis and Quantitation of Cannabinoids in Gummy Matrices Using Liquid Chromatography and Photodiode Array/Ultraviolet Detection**
Haley Jensen, BS; Aaron Urbas, PhD; Walter B. Wilson, PhD; Ira Saul Lurie, PhD*

9:15 AM – 9:30 AM **B173** **The Development of a Δ^9 -THC Colorimetric Breathalyzer Using 3D Printing Manufacture**
Wagner Pacheco, PhD; Igor Coreixas, MSc; Rafael Dornellas, PhD; Savannah Allinson; Shakyrah Golden; Justin L. Poklis, BS; Emanuele Alves, PhD*

*Presenting Author

CRIMINALISTICS

- 9:30 AM – 9:45 AM **B174** **Then vs. Now vs. the Future: An Overview of Extraction Protocols for Cannabis-Derived and Cannabinoid-Infused Products and the Development of a Universal Extraction Method**
Benedetta Garosi, BS; Rabi A. Musah, PhD*
- 9:45 AM – 10:00 AM **B175** **Trace Metals in Cannabis Seized by Law Enforcement in Ghana and Multivariate Analysis to Distinguish Among Different Cannabis Farms**
*Edward Bentil, MPhil, BSc**
- 10:00 AM – 10:15 AM **B176** **Are Smokable Hemp Products Correctly Labeled?**
Walter B. Wilson, PhD; Aaron Urbas, PhD*
- 10:15 AM – 10:30 AM **B177** **The Application of the Expert Algorithm for Substance Identification (EASI) to Resolve THC and CBD ESI-Mass Spectra**
Alexandra I. Adeoye, MS; Jacob King, BS; Glen P. Jackson, PhD*

DIGITAL & MULTIMEDIA SCIENCES

Thursday

JUST for Starters: Talking About The Forensic Analysis of Mobile Devices

Moderator: Josh Brunty, ScD

- | | | |
|--------------------|-----------|--|
| 8:30 AM – 8:50 AM | C1 | A Forensic Analysis of Veo Micromobility Mobile Application on iOS® Devices
<i>Nina Matulis, MS*</i> ; <i>Umit Karabiyik, PhD</i> ; <i>Marcus Rogers, PhD</i> ; <i>Baijian Yang</i> |
| 8:50 AM – 9:10 AM | C2 | A Forensic Analysis on Major Android™ Cloud SDKs
<i>Chen Shi, PhD*</i> ; <i>Yong Guan, PhD</i> |
| 9:10 AM – 9:30 AM | C3 | Geodata Sleuthing: Geo-Contextualized Digital Footprints Analysis to Empower Cyber Forensic Investigations and Life Pattern Analysis
<i>Mohammad Meraj Mirza, PhD*</i> ; <i>Umit Karabiyik, PhD</i> |
| 9:30 AM – 9:50 AM | C4 | The Development, Testing, and Comparison of Decontamination Methods for Drugs and Ignitable Liquids From Mobile Devices
<i>Christopher Michael Haser, BS*</i> ; <i>Kimberly S. Kunkler, PhD</i> ; <i>Lauren L. Richards-Waugh, PhD</i> |
| 9:50 AM – 10:00 AM | | BREAK |

It JUST Goes to Show . . . Or Does It?

Moderator: Vir Phoha, PhD

- | | | |
|---------------------|-----------|--|
| 10:00 AM – 10:20 AM | C5 | Using File Structure to Authenticate Video Files Uploaded to Cloud Storage Via iOS® Mobile Web Browser
<i>Brandon Epstein, MS*</i> ; <i>Bertram Lyons, MA*</i> |
| 10:20 AM – 10:40 AM | C6 | An Overview of Deepfake Technologies: From Creation to Detection in Forensics
<i>Luca Guarnera, PhD*</i> ; <i>Sebastiano Battiato, PhD</i> |
| 10:40 AM – 11:00 AM | C7 | The Application of Artificial Intelligence in Forensic Science AI4Forensics From Deepfakes to Risks and Challenges
<i>Zeno J. Geradts, PhD*</i> |
| 11:00 AM – 11:20 AM | C8 | Searching for Hidden Data in Multimedia Files with UNCOVER
<i>Zeno J. Geradts, PhD*</i> |
| 11:20 AM – 1:00 PM | | BREAK |

JUST in Time: Verifying Multimedia Evidence

Moderator: Christina Malone, MSFS

- | | | |
|-------------------|------------|--|
| 1:00 PM – 1:20 PM | C9 | The Accuracy of Time Stamps on Surveillance Recording Devices
<i>Benjamin Tyler Molnar, BSME*</i> ; <i>Toby Terpstra</i> ; <i>Tilo Voitell</i> |
| 1:20 PM – 1:40 PM | C10 | Forensic Video Analysis of an Underwater Volcanic Explosion That Injured Multiple Tour Boat Passengers
<i>Parris Ward, BA, JD*</i> |

DIGITAL & MULTIMEDIA SCIENCES

- 1:40 PM – 2:00 PM **C11** **An MDCT Analysis of Copy-Paste Fragments Without Query in Digital Forensic Audio**
*Catalin Grigoras, PhD**; *Cole Whitecotton, MSc*
- 2:00 PM – 2:20 PM **BREAK**
- 2:20 PM – 2:40 PM **C12** **Navigating the SILK Road: An Examination of WeChat SILK Audio Files**
*Andrew N. Crouse, BA**; *Douglas S. Lacey, MS, BS**; *Brian Smith, BS**; *In Yong Shin, BE*;
Louis Chan, BBA; *Ricky W.K. Lam, BS*
- 2:40 PM – 3:00 PM **C13** **Validation of Image Stream Hashing: A Forensic Method for Content Verification**
*Gregory S. Wales, DFS**
- 3:00 PM – 3:30 PM **BREAK**

JUSTice For All: Joining Digital & Multimedia With Jurisprudence

Moderator: Grace Rubio, BS

- 3:30 PM – 3:50 PM **C14** **Modeling Influences on the Understanding of Digital and Multimedia Evidence (DME) by Attorneys and Digital Forensic Examiners (DFE) Within the United States Criminal Justice System**
*Joseph Levi White, PhD**
- 3:50 PM – 4:10 PM **C15** **Uncovering Ethical and Legal Issues Associated With the Rising Trend of Using Chatbots—Crime Scene Investigation and Scientific Publishing**
*Ankita Guleria, MSc**; *Rakesh Meena, MSc*; *Nandini Chitara, MSc*; *Vishal Sharma, PhD*;
Kewal Krishan, PhD
- 4:10 PM – 4:30 PM **C16** **The Case of the Distracted Pedestrian: The Importance of Experts in Digital Forensics**
*Jason R. Lewis, PhD**
- 4:30 PM – 5:00 PM **C17** **The Potential for Impacting Unsolved Case Outcomes With the Inclusion of Digital and Multimedia Evidence (DME) Forensics Into Cold Case Units**
*Joseph Levi White, PhD**

Friday

JUST To Let You Know: Ensuring Quality and JUSTice in Digital & Multimedia Sciences

Moderator: Josh Brunty, ScD

- 9:00 AM – 9:20 AM **C18** **A Study of Digital Evidence (DE) Processing Efficiencies in Publicly Funded Crime Laboratories**
*Christopher L. Williams, BS**; *Peyton Attaway, MPH*; *Nichole D. Bynum, MS*; *Crystal Daye, MPA*;
Hope M. Smiley-McDonald, PhD; *John H. Grassel, MS*
- 9:20 AM – 9:40 AM **C19** **Standards Development Activities in Digital and Multimedia Forensic Science**
*Tracy Walraven, MFS**

DIGITAL & MULTIMEDIA SCIENCES

9:40 AM – 10:00 AM **C20** **What's VITAL When It Comes to Digital/Multimedia Standards? An Update From the OSAC Video/Imaging Technology & Analysis (VITAL) Subcommittee**
Christina A. Malone, MSFS; Marla E. Carroll, BS*; Neil F. Johnson, PhD*;
Melissa Kimbrell; Michelle Montonera, MS*

10:00 AM – 10:10 AM **BREAK**

JUST The Facts: Computer Forensic Investigations

Moderator: Alex Nelson, PhD

10:10 AM – 10:30 AM **C21** **The Integration of Forensic Science and Artificial Intelligence: The Implications in Crime Scene Investigations**
Nandini Chitara, MSc; Damini Siwan, MSc*; Ankita Guleria, MSc; Rakesh Meena, MSc;
Vishal Sharma, PhD; Kewal Krishan, PhD*

10:30 AM – 10:50 AM **C22** **WITHDRAWN**

10:50 AM – 11:10 AM **C23** **Live Memory Acquisition for STM32-Based Microcontrollers With ARM TrustZone**
Karley Waguespack, BS; Aisha Ali-Gombe, PhD*

11:10 AM – 11:30 AM **C24** **Live Memory Forensics of Field Devices in Industrial Control Systems**
*Irfan Ahmed**

11:30 AM – 1:00 PM **BREAK**

This JUST In: Tools and Their Developments

Moderator: Martin Novak, MPA

1:00 PM – 1:20 PM **C25** **Provenience-Based Cross-Verification of Digital Forensic Artifacts Applied to NTFS**
Alex J. Nelson, PhD; Sheldon L. Douglas*

1:20 PM – 1:40 PM **C26** **Testing File Carving Tools**
James R. Lyle, MS, PhD; Barbara Guttman, BA*

1:40 PM – 2:00 PM **C27** **The Latest Developments in Sailfish OS Forensics**
*Krassimir T. Tzvetanov, MS**

2:00 PM – 2:20 PM **C28** **Toward Personal Internet-of-Things User Attribution During Forensic Investigations**
Shinelle Hutchinson; Umit Karabiyik, PhD*

2:20 PM – 2:30 PM **BREAK**

DIGITAL & MULTIMEDIA SCIENCES

JUST Think: New and Novel Techniques in Multimedia Forensics

Moderator: Jason Latham, BA

- | | | |
|-------------------|------------|--|
| 2:30 PM – 2:50 PM | C29 | Deep Audio Analyzer: A Framework to Industrialize the Research on Audio Forensics
<i>Valerio Francesco Puglisi, MS, BS*; Sebastiano Battiato, PhD; Oliver Giudice, PhD</i> |
| 2:50 PM – 3:10 PM | C30 | The Impact of Multi-Camera Smart Phones on Source Camera Identification
<i>Stephanie Reinders, PhD*; Danica M. Ommen, PhD; Alicia Laura Carriquiry, PhD</i> |
| 3:10 PM – 3:30 PM | C31 | Research and Development of the Next Generation Digital Forensic Image Transmission Tool
<i>Kevin Fairbanks, PhD*; Mark Guido, MS</i> |
| 3:30 PM – 3:50 PM | C32 | Poses and Grimaces: Challenges for Automated Face Identification Algorithms?
<i>Petra Urbanova, PhD*; Dominik Cerny, MSc; Tomas Goldmann, MSc</i> |

ENGINEERING & APPLIED SCIENCES

Thursday

Poster Session

11:30 AM – 1:00 PM **D1** **Technology Advances in Crime Scene Investigation**
*Massimiliano Esposito, MD**; *Gluseppe Li Rosi, PhD*; *Elisa Pappalardo, MD*; *Monica Salerno, MD*

Forensic Analysis/Collision Reconstruction

Moderator: Kurt Weiss, MS

Co-Moderator: David Pienkowski, PhD

8:30 AM – 8:45 AM **D2** **A Method for the Evaluation of Upper Rear Vehicle Structures**
*Brian Herbst, PE**; *Chris Clarke, BS*

8:45 AM – 9:05 AM **D3** **Rear Impact Crashworthiness Defects Proven by Forensic Analysis Combined With Static and Dynamic Testing: The Failures of Seats, Head Restraints, and Belts**
*Mark C. Pozzi, MS**

9:05 AM – 9:20 AM **D4** **Mapping Vehicle Headlights to Identify the Threshold of Human Visual Performance in a Nighttime Visibility Study**
*Jorge Mendoza, BS**

9:20 AM – 9:30 AM **D5** **An Experimental Analysis of How Non-Nominal Sitting and Pyrotechnic Seat Belt Pretensioners Interact**
*Adam Goodworth, MS, PhD**

9:30 AM – 9:50 AM **BREAK**

9:50 AM – 10:10 AM **D6** **Photogrammetry Software Used to Survey Site, Map Tire Friction Marks, and Recreate the Driver's View in Support of Alternative Collision Scenarios**
*Kurt D. Weiss, MSME**; *Jorge Mendoza, BSME*

10:10 AM – 10:30 AM **D7** **Recreational Vehicle Crashworthiness: Enhanced Injury Caused by Unsafe Vehicle Interior Structures Combined With Predictable Seat and Belt Failures**
*Mark C. Pozzi, MS**

10:30 AM – 10:45 AM **D8** **Visibility Study Uses Camera Tracking Software to Analyze Dashcam Video in a Bicycle Collision**
*Jorge Mendoza, BS**

10:45 AM – 11:45 AM **D9** **Slip and Fall: Methods of Simulation and Validation of a Formula**
*Darren Franck, MSME**; *Harold Franck, MSEE**; *Vincent D. Franck*; *Alexander Franck*

11:45 AM – 1:00 PM **BREAK**

ENGINEERING & APPLIED SCIENCES

Statistics and Machine Learning #1

Moderator: Jatin Bodwal, MD

- | | | |
|-------------------|------------|---|
| 1:00 PM – 1:20 PM | D10 | Comparing Statistical/Machine Learning Approaches to Identifying Authorship
<i>Francesco Gabriele Strafforello, MA*</i> ; <i>Carole E. Chaski, PhD</i> |
| 1:20 PM – 1:40 PM | D11 | Counterexamples for the Use of Spectrogram Comparison as a Method of Forensic Speaker Recognition by Law Enforcement and in Courts as Evidence
<i>Jeffrey Nathaniel Holmes*</i> |
| 1:40 PM – 2:00 PM | D12 | Using Statistical Analysis to Assist With Writer Identification
<i>Mike Wakshull, MS, BS*</i> |
| 2:00 PM – 2:20 PM | D13 | Linguistics, Computer Vision, and Handwriting Identification: HANDLER
<i>Carole E. Chaski, PhD*</i> |
| 2:20 PM – 2:35 PM | | BREAK |

Statistics and Machine Learning #2

Moderator: Jatin Bodwal, MD

- | | | |
|-------------------|------------|--|
| 2:35 PM – 2:55 PM | D14 | Presenting Model Uncertainty to Decision Makers
<i>Willem A. Schreuder, PhD*</i> |
| 2:55 PM – 3:25 PM | D15 | Graph Theoretic Techniques for Image Comparisons
<i>Gautham Venkatasubramanian*</i> ; <i>Alicia Laura Carriquiry, PhD</i> |
| 3:25 PM – 3:30 PM | D16 | Quantitative Matching of Forensic Evidence Fragments Using Fracture Surface Topography and Statistical Learning
<i>Ashraf Bastawros, PhD*</i> ; <i>Ranjan Maitra, PhD</i> ; <i>William Meeker, PhD</i> ; <i>Lauren Claytor, MS, BS</i> |
| 3:30 PM – 3:50 PM | | BREAK |

Innovation in Forensic Science

Moderator: Carole Chaski, PhD

- | | | |
|-------------------|------------|--|
| 3:50 PM – 4:05 PM | D17 | Innovation Fundamentals: The Prelude for Next Generation Advances in Forensic Sciences
<i>David Pienkowski, PhD, MBA*</i> ; <i>Jacklyn N. Ady, MBA, BS</i> |
| 4:05 PM – 4:25 PM | D18 | What Researchers and Practitioners Should Know About the Forensic Innovation Ecosystem
<i>Rebecca L. Shute, MS*</i> |
| 4:25 PM – 4:40 PM | D19 | The Use of STL Technology and 3D Processing in Forensics: New Tools and a Multidisciplinary Approach
<i>Gennaro Baldino, MD*</i> ; <i>Fabio Salmeri*</i> ; <i>Daniela Sapienza, MD*</i> ; <i>Filippo Cucinotta</i> ; <i>Marcello Raffaele</i> ; <i>Alessio Altadonna</i> ; <i>Cristina Mondello, MD</i> ; <i>Vincenzo Cianci</i> ; <i>Elvira Ventura Spagnolo, MD</i> ; <i>Alessio Asmundo, MD</i> |
| 4:40 PM – 5:00 PM | D20 | Rule 702: Origins and Implications for Engineers and Attorneys
<i>Gail Groy, JD*</i> ; <i>David Pienkowski, PhD, MBA</i> |

ENGINEERING & APPLIED SCIENCES

Friday—Session I

Poster Session

11:30 AM – 1:00 PM **D21** **A Study on the Application of the Genetic Algorithm for Fall Analysis**
*Chan-Seong Park, PhD**

EDR Analysis Applied to Crash Reconstruction

Moderator: Harold Franck, MSEE

Co-Moderator: Darren Franck, MSME

8:30 AM – 9:00 AM **D22** **Comparing Event Data Recorder (EDR) Pre-Crash Data With UTC Time Codes in Cell Phone Records and Pre-Crash Data and UTC Data in Front Camera Modules (FCMs)**
*Billy S. Cox**

9:00 AM – 9:30 AM **D23** **Using EDR Pre-Crash Data to Evaluate Driver Behavior in Traffic Collisions**
Kurt D. Weiss, MSME; Billy Cox*; Robert Anderson, MSBE**

9:30 AM – 9:50 AM **D24** **Understanding the Limitations of EDR Data for Crash Reconstruction**
Brendan Bourdage, PhD; John Smith, MSEE, PE; Peter Alexander, PhD*

9:50 AM – 10:25 AM **D25** **Vehicle Wheel Speed: Did Tire Wear Lead to a Sudden Loss of Control on a Wet Road?**
*Billy S. Cox**

10:25 PM – 10:40 AM **BREAK**

Crime Investigation Techniques

Moderator: Harold Franck, MSEE

Co-Moderator: Darren Franck, MSME

10:40 AM – 11:00 AM **D26** **The Detection of Blood Stains on Natural, Semi-Synthetic, and Synthetic Fabric Exposed to Extreme Environmental Conditions Using ATR/FTIR Spectroscopy**
Entesar Al-Hetlani, PhD; Zainab Hussain; Meshari Al-Qalfas; Mohamed Amin, PhD; Igor K. Lednev, PhD*

11:00 AM – 11:15 AM **D27** **Fluorescent Carbon Quantum Dots Produced From Natural Resources for Sweat Latent Fingerprint Recognition**
Amarnath Mishra, MPhil, PhD; Nisha Yadav, MSc; Vivek Mishra, PhD*

11:15 AM – 11:35 AM **D28** **The Discrimination of Smokers and Non-Smokers Based on the Analysis of Fingermarks Using ATR/FTIR Spectroscopy and Chemometrics**
Mohamed Amin, PhD; Entesar Al-Hetlani, PhD; Igor K. Lednev, PhD*

11:35 AM – 11:55 AM **D29** **The Influence of Taphonomic Changes on the Persistence of Serrations in Stab Wounds**
Sarah V. Hainsworth, BEng, PhD; Sophie A. Stanley, MBChB, BSc; Guy N. Ruddy, MBBS, MD*

11:55 AM – 1:00 PM **BREAK**

ENGINEERING & APPLIED SCIENCES

Environmental

Moderator: Kurt Weiss, MS

- | | | |
|-------------------|------------|--|
| 1:00 PM – 1:15 PM | D30 | Environmental Forensic Microscopy Considering Assemblages for World Trade Center Dust and Wildfire Smoke
<i>James Millette, PhD*</i> |
| 1:15 PM – 1:30 PM | D31 | Noxious Gas Inhalations—A Lethal Occupational Hazard While Cleaning Effluent Treatment Plants in India: A Forensic Analysis
<i>Deen Dayal, MBBS, MD*; Mohit Chauhan, MBBS; MD</i> |
| 1:30 PM – 1:45 PM | D32 | The Ruggedness of a Kinetic Model to Predict Chromatograms of Gasoline Under Different Evaporation Conditions
<i>Hannah Jewell LaVoie, BS*; Victoria L. McGuffin, PhD; Ruth Waddell Smith, PhD</i> |
| 1:45 PM – 2:00 PM | | BREAK |

Artificial Intelligence: Machine Generated Text

Moderator: Kurt Weiss, MS

- | | | |
|-------------------|------------|---|
| 2:00 PM – 2:20 PM | D33 | Data Collection of Forensically Feasible AI-Generated Texts: The ILE AI-Generated Corpus
<i>Colton B. Wolk, BS*</i> |
| 2:20 PM – 2:40 PM | D34 | The Lexical Characteristics of AI-Generated Texts
<i>Colton B. Wolk, BS*</i> |
| 2:40 PM – 3:00 PM | D35 | Semantic Characteristics of AI-Generated Texts
<i>Francesco Gabriele Strafforello, MA*</i> |
| 3:00 PM – 3:20 PM | D36 | The Syntactic Characteristics of AI-Generated Texts
<i>Samuel Olanrewaju, MA*</i> |
| 3:20 PM – 3:35 PM | D37 | A Statistical Authorial Modeling of AI-Generated and Human-Generated Texts
<i>Carole E. Chaski, PhD*; Colton Wolk, BS; Francesco Gabriele Strafforello, MA; Samuel Olanrewaju, MA</i> |

Friday—Session II

Multidisciplinary Session: Engineering & Applied Sciences and Forensic Nursing Science

Moderator: Kathy Bell

Co-Moderator: Paul Johnson, PhD

- | | | |
|-------------------|------------|---|
| 9:00 AM – 9:15 AM | D38 | Bone Injuries in Nursing Home Residents
<i>David Pienkowski, PhD, MBA*</i> |
| 9:15 AM – 9:30 AM | E20 | Crowd Surge Triggers and Mitigating Factors
<i>David A. Williams, DDS, MPH*; Joyce P. Williams, DNP, MFSA, RN</i> |
| 9:30 AM – 9:45 AM | D39 | Electrical Injury Causes: Part 2—Evidence Retention
<i>Helmut G. Brosz, BASc, DBA*</i> |

ENGINEERING & APPLIED SCIENCES

9:45 AM – 10:00 AM	E21	Interdisciplinary Research Related to Sexual Violence and Dating App Usage <i>Emma Mae Walquist, BS*</i> ; Douglas Zytko; Michele Parkhill; Melissa M. McDonald, PhD; Kelly A. Berishaj, DNP, MSN; Wenqi Zheng, MS, BA; Xiangyu Zhou; Dongxiao Zhu
10:00 AM – 10:15 AM	D40	Powered Two-Wheeler Safety: An Experimental Analysis of Injuries and Injury Mechanisms Using Instrumented PMHS <i>John H. Bolte, PhD, MSc*</i> ; Amanda M. Agnew, PhD; Yun-Seok Kang, PhD
10:15 AM – 10:30 AM		BREAK
10:30 AM – 10:45 AM	E22	Shaken Baby Syndrome—A Force to Be Reckoned With: A Case Review <i>Janean M. Fossum, BSN*</i>
10:45 AM – 11:00 AM	D41	What Is Known About Pregnant Occupants and Fetal Risk in Car Crashes <i>Adam Goodworth, MS, PhD*</i> ; Ciboney Hellenbrand; Charlotte Bloom; Ashley Pitzen
11:00 AM – 11:15 AM	E23	“Compressed Baby Head”: A New “Abusive Head Trauma” Entity? <i>Enrica Macorano, MD*</i> ; Mattia Gentile; Giandomenico Stellacci; Mariano Manzionna; Federica Mele, MD; Mariagrazia Calvano, MD; Mirko Leonardelli, MD; Stefano Duma, MD; Giovanni De Gabriele, MD; Alessandro Cristalli, MD; Raffaella Minella; Aldo Di Fazio
11:15 AM – 11:30 PM	D42	A Child Fatality in a Vehicular Rear Impact: A Forensic Analysis and Static Testing to Scientifically Prove Seat and Belt Failures <i>Mark C. Pozzi, MS*</i>

FORENSIC NURSING SCIENCE

Thursday

Poster Session

- 11:30 AM – 1:00 PM **E1** **Is a Nurse Also a Forensic Nurse? Gaining a Forensic Insight: Empowering Nurses in Addressing Interpersonal Violence**
*Valeria Kaegi, RN; Michael J. Thali, MD**
- 11:30 AM – 1:00 PM **E2** **The Progress of Forensic Nursing in Japan**
Naomi Kano; Nanako Yoneyama, MS*

Morning Session

Moderator: Laurie Charles, MSN

Moderator: Sylvia Perez, BSN

- 9:00 AM – 9:15 AM **E3** **Community-Based Forensic Nursing: The Development of Fully Functioning Forensic Programs in a Rural State**
Kacie Parrish, BSN, RN; Abigail Ellis, BSN*
- 9:15 AM – 9:30 AM **E4** **Creating a Clinical Preceptor Course for SANE Pediatric/Adolescent Nurses**
L. Kathleen L. Sekula, MSN, PhD; Cheryl Wier, MSN, RN; Susan Buxbaum, DNP; Meghan Currie, BS*
- 9:30 AM – 9:45 AM **E5** **One Voice, One Vision: A System Approach to Sustaining a Best Practice Model With Forensic Nursing for Quality Patient Care, Community Safety, Credible Judicial Outcomes, and Staff Retention**
Jamie Ferrell, MBA, BSN; Mary E. Carrillo, MSN, MBA; Bryan Sisk, DNP, MPH*
- 9:45 AM – 10:00 AM **E6** **Tracking Sexual Assault Kits (SAKs) and CODIS-Eligible Profiles**
Sabrina Riddles; Ricardo Ruiz; Gang Han; Rebecca Vieh, MS; Nancy R. Downing, PhD*
- 10:00 AM – 10:15 AM **E7** **Who Doesn't Report to the Police? A Quantitative Analysis of Victim, Offender, and Assault Characteristics for Non-Report Sexual Assault Medical Forensic Examinations**
Jessica Volz, DNP; Rachael Goodman-Williams, PhD**
- 10:15 AM – 10:30 AM **BREAK**
- 10:30 AM – 10:45 AM **E8** **Lock-Downs Causing Lock-Ins: The Impact of the COVID-19 Pandemic on Domestic and Intimate Partner Violence Trends Observed by Forensic Nurse Examiners**
Sydney Rachel Kennedy, PhD, MSN; Christina Yannetsos, MD; Erin Aschman, RN; Kerry Peterson, PhD, DNP; Christine Foote-Lucero, MSN, RN*
- 10:45 AM – 11:00 AM **E9** **Stay at Home, Stop the Virus, Stay Safe? The Impact of the Coronavirus Pandemic on Intimate Partner Violence in England and Wales for Heterosexual Female Victims**
Kate Wilson, MS, BSc; Sajeel Shah, PhD, MS; Nikolas Lemos, PhD*
- 11:00 AM – 11:15 AM **E10** **We Can Help Health Care Professions Understand and Do More: The Survivors of Intimate Partner Violence in Israel Talk**
Orli Grinstein-Cohen, RN, PhD; Bar Eisenmann, RN*
- 11:15 AM – 11:30 PM **E11** **Forensic Nursing in the Balkan Region**
Ersi Abaci Kalfoglou; Virginia A. Lynch, MSN; Sotirios Kalfoglou; Emel Hülya Yükseloğlu*

FORENSIC NURSING SCIENCE

Afternoon Session

Moderator: Michelle Patch, PhD, MSN

Co-Moderator: Moderator: Jessica Volz, DNP

- 1:00 PM – 1:15 PM **E12** **Sexual Assault Has a Chokehold on Forensic Nursing**
*Crystal G. Schwerdtfeger, BS**; *Arianne Bauer, BS*
- 1:15 PM – 1:30 PM **E13** **The Implementation of a Risk Assessment Screening Tool to Detect Elder Abuse in the Emergency Department**
*Laura La Cagnina, DNP, RN**
- 1:30 PM – 1:45 PM **E14** **Forensic Nurse Focus: The Care of Persons With Disabilities**
*Janean M. Fossum, BSN**
- 1:45 PM – 2:00 PM **E15** **A Forensic Nursing Response to Workplace Violence Using the Worker Well-Being® Model**
*Jessica Volz, DNP**; *Karen Heaton, PhD*; *Patricia M. Speck, DNSc*
- 2:15 PM – 2:30 PM **E16** **Forensic Nursing Science: Investigation as a Care Component in Trauma and Death**
*Virginia A. Lynch, MSN**; *Carrie E. Edwards, PhD**
- 2:30 PM – 2:45 PM **E17** **The Forensic Nurse's Role in Investigating Trauma: Two Clinical Case Studies on Factitious Disorder**
*Carrie E. Edwards, PhD**; *Virginia A. Lynch, MSN*; *Donna Scott Tilley, PhD, RN*
- 2:45 PM – 3:00 PM **E18** **Mapping Forensic Nursing Competencies for Disaster Situations**
*Thiago Augusto Soares Monteiro da Silva**; *Débora Fernanda Haberland*;
Thais da Silva Kneodler; *Alex Coelho da Silva Duarte*; *Joyce P. Williams, DNP, RN*;
Alexandre Barbosa de Oliveira
- 3:00 PM – 3:15 PM **E19** **The Role of the Forensic Nurse as a New Method of Managing the Quality and Timelines of Carrying Out the Autopsy**
*Matteo Antonio A. Sacco, MD**; *Isabella Aquila, PhD, MD**; *Maria Cristina Verrina, MD*;
Luca Calanna, MD; *Martino Maesani, MD*; *Elisa Folino*; *Marinika Salasco*; *Pietro Tarzia*;
Alessandro Pasquale Tarallo, MD; *Pietrantonio Ricci, PhD, MD*

Friday

Multidisciplinary Session: Engineering & Applied Sciences and Forensic Nursing Science

Moderator: Kathy Bell

Co-Moderator: Paul Johnson, PhD

- 9:00 AM – 9:15 AM **D38** **Bone Injuries in Nursing Home Residents**
*David Pienkowski, PhD, MBA**
- 9:15 AM – 9:30 AM **E20** **Crowd Surge Triggers and Mitigating Factors**
*David A. Williams, DDS, MPH**; *Joyce P. Williams, DNP, RN*
- 9:30 AM – 9:45 AM **D39** **Electrical Injury Causes: Part 2—Evidence Retention**
*Helmut G. Brosz, BASc, DBA**
- 9:45 AM – 10:00 AM **E21** **Interdisciplinary Research Related to Sexual Violence and Dating App Usage**
*Emma Mae Walquist, BS**; *Douglas Zytko*; *Michele Parkhill*; *Melissa M. McDonald, PhD*;
Kelly A. Berishaj, DNP, MSN; *Wenqi Zheng, MS, BA*; *Xiangyu Zhou*; *Dongxiao Zhu*

FORENSIC NURSING SCIENCE

- 10:00 AM – 10:15 AM **D40** **Powered Two-Wheeler Safety: An Experimental Analysis of Injuries and Injury Mechanisms Using Instrumented PMHS**
John H. Bolte, PhD, MSc; Amanda M. Agnew, PhD; Yun-Seok Kang, MD*
- 10:15 AM – 10:30 AM **BREAK**
- 10:30 AM – 10:45 AM **E22** **Shaken Baby Syndrome—A Force to Be Reckoned With: A Case Review**
*Janean M. Fossum, BSN**
- 10:45 AM – 11:00 AM **D41** **What Is Known About Pregnant Occupants and Fetal Risk in Car Crashes**
Adam Goodworth, MS, PhD; Ciboney Hellenbrand; Charlotte Bloom; Ashley Pitzen*
- 11:00 AM – 11:15 AM **E23** **"Compressed Baby Head": A New "Abusive Head Trauma" Entity?**
Enrica Macorano, MD; Mattia Gentile; Giandomenico Stellacci; Mariano Manzionna; Federica Mele, MD; Mariagrazia Calvano, MD; Mirko Leonardelli, MD; Stefano Duma, MD; Giovanni De Gabriele, MD; Alessandro Cristalli, MD; Raffaella Minella; Aldo Di Fazio*
- 11:15 AM – 11:30 PM **D42** **A Child Fatality in a Vehicular Rear Impact: A Forensic Analysis and Static Testing to Scientifically Prove Seat and Belt Failures**
*Mark C. Pozzi, MS**

GENERAL

Wednesday

Poster Session

-
- | | | |
|--------------------|------------|--|
| 11:30 AM – 1:00 PM | F1 | A Cholinesterase-Based Inhibition System for the Detection of Fentanyl and Fentanyl Analogs
<i>Emilynn L. Banks, BS, MS*</i> ; <i>Giana Biddle, PhD, MA</i> ; <i>Jan Halamek, PhD</i> |
| 11:30 AM – 1:00 PM | F2 | The Determination of Time Since Deposition of Blood Samples Via Alanine Quantification
<i>Estreylla D. Sierra, MS*</i> ; <i>Jan Halamek, PhD</i> |
| 11:30 AM – 1:00 PM | F3 | The Determination of Lead (Pb) in Cosmetic Samples by Graphite Furnace Atomic Absorption Spectrometer (GFAAS)
<i>Kapil Kumar*</i> ; <i>Ashok Kumar Jaiswal, PhD</i> ; <i>T. Millo</i> |
| 11:30 AM – 1:00 PM | F4 | Investigating Student Perceptions of Learning in the Flipped Classroom Setting Within a Forensic Science Course
<i>Lacey Victoria Sharman*</i> ; <i>Amanda C. Chee-Awai</i> ; <i>Tamra Legron-Rodriguez, PhD</i> |
| 11:30 AM – 1:00 PM | F5 | How Do Kinetic Energy and Firearm-to-Target Distance Influence Fracture Morphology?
<i>Delaney Edwards, MA*</i> ; <i>Mariyam I. Isa, PhD</i> |
| 11:30 AM – 1:00 PM | F6 | Success Rates for Positive Identification Using Multiple Fingerprint Methods in a Mid-South Population
<i>Brittany Wexler, MSc, BSc*</i> ; <i>Diana Messer, PhD</i> ; <i>Marco Ross, MD</i> ; <i>Nathan Gathright</i> |
| 11:30 AM – 1:00 PM | F7 | Gunshot Defense Wounds: The Need for a Specific Classification
<i>Laura Ambrosi*</i> ; <i>Marcello Benevento, MD</i> ; <i>Cristina Caterino, DM</i> ; <i>Simona Nicoli, DM</i> ; <i>Francesco Carravetta, DM</i> ; <i>Antonio Straface, MD</i> ; <i>Biagio Solarino</i> |
| 11:30 AM – 1:00 PM | F8 | A Raman Spectroscopic Analysis of Drugs in Contaminated Fingermarks: The Effect of Temperature and Time Since Deposition
<i>Mohamed Amin, PhD*</i> ; <i>Entesar Al-Hetlani, PhD</i> ; <i>Igor K. Lednev, PhD</i> |
| 11:30 AM – 1:00 PM | F9 | Dating Traumatic Brain Injury With a Dura Mater Immunohistochemical Assay: An Ongoing Study
<i>Marcello Benevento, MD*</i> ; <i>Cristina Caterino, DM</i> ; <i>Simona Nicoli, DM</i> ; <i>Francesco Carravetta, DM</i> ; <i>Antonio Straface, MD</i> ; <i>Laura Ambrosi</i> ; <i>Francesco Merlanti</i> ; <i>Biagio Solarino</i> |
| 11:30 AM – 1:00 PM | F10 | An Evaluation of Explosive Odor Signature Persistence on Training Aid Substrates
<i>Juliet Leslie DeNapoli, BSA*</i> ; <i>Paola A. Prada-Tiedemann, PhD</i> |
| 11:30 AM – 1:00 PM | F11 | The Opioid Revival: A Case Report Where Toxicology Meets Music
<i>Simona Nicoli, DM*</i> ; <i>Cristina Caterino, DM</i> ; <i>Marcello Benevento, MD</i> ; <i>Laura Ambrosi, MD</i> ; <i>Antonio Straface, MD</i> ; <i>Francesco Carravetta, DM</i> ; <i>Biagio Solarino</i> |
| 11:30 AM – 1:00 PM | F12 | Establishing the Manner of Death: A 3D Reconstruction of a Case of Hanging
<i>Laura Ambrosi*</i> ; <i>Marcello Benevento, MD</i> ; <i>Cristina Caterino, DM</i> ; <i>Simona Nicoli, DM</i> ; <i>Francesco Carravetta, DM</i> ; <i>Antonio Straface, MD</i> ; <i>Biagio Solarino</i> |
| 11:30 AM – 1:00 PM | F13 | Electric Scooter-Related Accidents: A Possible Protective Effect of Helmet Use on Head Injury Severity
<i>Giovanni Aulino, MD*</i> ; <i>Silvia Valentini, MD</i> ; <i>Marcello covino, MD, PhD</i> ; <i>Francesca Cittadini, MD</i> |

GENERAL

- 11:30 AM – 1:00 PM **F14** **Contention and Restraint: Medicolegal Aspects of a Controversial Practice**
*Giulia Berneschi, MD**; *Carla Occhipinti, MD**; *Andrea Costantino, MD*; *Chiara Toni, MD, PhD*;
Arianna Baronti, MD; *Rebecca Pieretti, MD*
- 11:30 AM – 1:00 PM **F15** **“One Ring to Find Them All”: The Potential of Scanning Electron Microscopy (SEM) With Microanalysis/Energy-Dispersive X-Ray Spectroscopy (EDS) in a Murder Suspect Case**
*Ilaria Marcacci, MD**; *Naomi Iacoponi, MD**; *Julia Lazzari, MD*; *Andrea Costantino, MD*;
Luigi Papi, MD; *David Forni, MD*; *Claudia Giaconi, MD*; *Silvio Chericoni, PhD*
- 11:30 AM – 1:00 PM **F16** **“All Women Are Equal, but Some Women Are More Equal Than Others”: The Italian View of Cesarean Section on Maternal Request Between Women's Self-Determination and Malpractice**
*Ilaria Marcacci, MD**; *Arianna Baronti, MD*; *Federica Spina, MD*; *Giulia Berneschi, MD**;
Matteo Leoni, MD; *Marco Di Paolo, MD*
- 11:30 AM – 1:00 PM **F17** **The Postmortem Identification of Decomposed Bodies Using Mikrosil™ Fingerprint Impressions**
*Madeline Rivera, MS**; *Ismail M. Sebetan, MD, PhD**; *Paul Stein, PhD**
- 11:30 AM – 1:00 PM **F18** **Fungal Interaction in Mammalian Decomposition in the New Jersey Pine Barrens**
*Jacquelyn V. Gross, BS**; *Jennifer Oberle, PhD*; *Jessica Lynne Metcalf, PhD*;
Kimberlee S. Moran, AB, MSc
- 11:30 AM – 1:00 PM **F19** **Deadly Fettuccine With Bolognese Sauce: A Case of Sudden Death in a Woman Suffering From Achalasia**
Luca Tajana, MD; *Alessandra Mammana, MD**; *Elena Cavriani, MD*; *Mirella Sabatino, MD*;
Gianmarco Di Palma, MD; *Valeria Prandini, MD*; *Gaia Tamellini, MD*; *Domenico De Stradis*;
Lara Malaspina, MD; *Gulnaz T. Javan, PhD*; *Silvia D. Visonà, MD, PhD*; *Luca Morini, PhD*
- 11:30 AM – 1:00 PM **F20** **The Climate's Influence on Fingerprint Quality**
*Timothy Juedes, MFS**; *Caitlyn Grotjahn*; *Jenna Wilson*
- 11:30 AM – 1:00 PM **F21** **Investigating the Effect Flipped Classroom Structure Has on Perceived Student Engagement in a Post-Secondary Forensic Science Course**
*Amanda C. Chee-Awai**; *Lacey Victoria Sharman*; *Tamra Legron-Rodriguez, PhD*
- 11:30 AM – 1:00 PM **F22** **Characterizing Flow Cytometry Analysis of Pollen Mixtures**
*Slun Booppasiri**; *Larry Tang, PhD*; *Jack Trimble*; *Matthieu Baudelet, PhD*; *Luz J. Kelley*;
Alicja Copik
- 11:30 AM – 1:00 PM **F23** **Determining Possible Causality of Inherent Fluorescence in Fingerprint Residue**
*Brenda Marchetti, MS**; *Ismail M. Sebetan, MD, PhD**; *Paul Stein, PhD**
- 11:30 AM – 1:00 PM **F24** **The Influence of Handwashing and Handedness on the Fingerprint Microbiome Over Time**
*Sarah Jackman, BS**; *Josep De Alcaraz-Fossoul, PhD*
- 11:30 AM – 1:00 PM **F25** **Deaths of Irregular Migrants in California**
*Marni LaFleur, PhD**
- 11:30 AM – 1:00 PM **F26** **Death Due to Miracle Mineral Solution (MMS)**
*Sami Souccar**; *Juan Carrillo*; *Brice Hunt, MD*
- 11:30 AM – 1:00 PM **F27** **Missing and Murdered Indigenous People: The American Southwest**
*Sharon K. Moses, PhD**

GENERAL

- 11:30 AM – 1:00 PM **F28** **Is the Famous California Palm Tree a Serial Killer? A Unique Mechanism of Death in Tree Trimming Accidents**
*Sami Souccar**; *Brice Hunt, MD*
- 11:30 AM – 1:00 PM **F29** **The Effects of Overlapped Latent Fingermarks on Skin Microbiomes Deposited Over Time**
*Lauren Welch**; *Josep De Alcaraz-Fossoul, PhD*
- 11:30 AM – 1:00 PM **F30** **The Use of GIS Mapping to Assist With Forensic Recoveries of Historic Aircraft Crash Sites**
*Audrey M. Lauerhass**; *Tiffany B. Saul, PhD*; *Adam Fracchia, PhD*
- 11:30 AM – 1:00 PM **F31** **The Application of Forensic Genetic Genealogy in Criminal Investigation**
*Jeff Cheng-Lung Lee**; *Wenping Liu*
- 11:30 AM – 1:00 PM **F32** **Multidisciplinary Teamwork: The Excavation of a Grave Enshrouded by a Banyan Tree**
*Denise To, PhD**; *Robert Ingraham, MSc*; *Allison M. Campo, MA*; *Audrey Scott, PhD*
- 11:30 AM – 1:00 PM **F33** **Driving While Intoxicated: Why Are DWI Cases Being Dismissed in New Jersey?**
*Christopher Dudzik, MA, BS**; *Gloria Raise*; *Amanda Joy O'Connor, BS*; *Denise Gemmellaro, PhD**
- 11:30 AM – 1:00 PM **F34** **Approaches to Investigating Textile Damage in Stabbing Cases: A Forensic Analysis and Reconstruction**
Sotirios Ziogos, BSc, MFSc; *Ian R. Dadour, MSc, PhD**; *Paola A. Magni, PhD*
- 11:30 AM – 1:00 PM **F35** **Unraveling an Unusual Homicide: Asphyxia Due to Obstruction of Respiratory Orifices in a Subject With Acute Benzodiazepine and Tricyclic Antidepressant Intoxication**
*Arianna Rifiorito, MD**; *Valeria Giglio, MD*; *Dario Scaglione, MD*; *Vanessa Milazzo, MD*; *Roberto Buscemi*; *Valentina Triolo, MD*; *Manfredi Rubino, MD*; *Antonina Argo*
- 11:30 AM – 1:00 PM **F36** ***Staphylococcus Aureus* Strikes Again! Never Underestimate a Furunculous Infection: An Autopsy Case Report of Acute Bacterial Spinal Meningitis in a Young Female**
*Fabio Del Duca, MD**; *Paola Santoro, MD**; *Giacomo Visi, MD**; *Gabriele Napoletano, MD**; *Federica Spina, MD**; *Alessandra De Matteis, MD*; *Aniello Maiese, MD*
- 11:30 AM – 1:00 PM **F37** **Closing Cases and Reducing Risk: A New Training Curriculum for Law Enforcement on Conducting Investigations With Transgender Crime Victims**
*Robert Eckstein, PsyD**; *Amy Michael, PhD*

Thursday—Session I

Face and Feet

Moderator: Mark Goff, BA

- 8:30 AM – 8:45 AM **F38** **Emerging Paradigms in Forensic Facial Comparison Through Artificial Intelligence**
*Oscar Ibáñez Panizo, PhD**; *Enrique Bermejo, PhD*; *Alejandro Manzanares*; *Antonio David Villegas, MSc, BS*; *Andrea Valsecchi, PhD*
- 8:45 AM – 9:00 AM **F39** **The Reliability of the Viola-Jones Algorithm for Detecting Pose Variant Facial Features**
*Lovepreet Kaur, MSc**; *Mukesh Kumar K. Thakar, PhD*; *Navdeep Goel, PhD*
- 9:00 AM – 9:15 AM **F40** **The Mentioned but Not Explained: The Blend of Art and Science in Manual Forensic Facial Reconstruction**
*Daniel Marion, MFA, PhD**

GENERAL

9:15 AM – 9:30 AM	F41	An Update on the Status of Facial Identification <i>Steven L. Johnson, BS*</i>
9:30 AM – 9:45 AM	F42	Forensic Podiatry: An Important Discipline in the Analysis of Feet, Footprints, Gait, and Trackways <i>Kewal Krishan, PhD*</i>
9:45 AM – 10:00 AM	F43	Further Observations Into the Linking of Footprints With Footwear-Forensic Implications and Interpretations <i>Kewal Krishan, PhD*</i>
10:00 AM – 10:15 AM	F44	The Casting of Shallow Footwear Impressions: A Field Test of Comparisons Between 3D Photographing and 3D Laser Printing Methods <i>John Z. Wang, PhD*</i>
10:15 AM – 10:30 AM		BREAK

COVID and Humanitarian

Moderator: Tom Bevel, MA

10:30 AM – 10:45 AM	F45	Selected Trends From COVID-19 Prospective Data Collection at the Tarrant County Medical Examiner's Office <i>Lilly G. Crowns, BS*; Stacey Murthy, MD; John Briggs</i>
10:45 AM – 11:00 AM	F46	Predictive Models for the Diagnosis and Prognosis of COVID-19: Tools for Assessing the Evaluation of Health Responsibility in a Case of a "Culpable Epidemic" <i>Domenicantonio Iannello, MD*; Gennaro Baldino, MD*; Concetta Fenga; Antonio Cascio; Francesco Corica; Carmelo Nobile; Rocco Pistininzi, MD; Pietro Tarzia; Cristina Genovese, PhD; Alessio Asmundo, MD; Elvira Ventura Spagnolo, MD</i>
11:00 AM – 11:15 AM	F47	Humanitarian Forensics: A Call to the Scientific Community From the International Committee of the Red Cross <i>Pierre Guyomarc'h, PhD*</i>
11:15 AM – 11:30 AM	F48	Asylum Seekers and Victims of Torture in Sicily, Italy: The Role of Forensic Medicine in the Mediterranean Migratory Crisis <i>Giuseppe Davide Albano*; Corinne La Spina; Valeria Tullio; Mauro Midiri; Stefania Zerbo; Antonina Argo</i>
11:30 AM – 11:45 AM	F49	Multiband Imaging Methods in Humanitarian Forensic Medicine to Enhance the Readability of Documents From Mediterranean Shipwreck Victims <i>Lorenzo Franceschetti, MD, PhD*; Marco Gargano, PhD; Andrea Palamenghi, BSc; Debora Mazzarelli, BSc; Martina Cabrini, BSc; Alice Plutino, BSc; Cristina Cattaneo, MD, PhD</i>
11:45 AM – 12:00 PM	F50	Breaking Barriers: Empowering Forensic Dermatologists in Asylum Applications Through Identifying Evidence of Torture in Ethnic Skin Variations <i>Mishaal Fatima*; Sajeel A. Shah, PhD; Nikolas P. Lemos, PhD</i>
12:00 PM – 12:15 PM	F51	The Contribution of Immunohistochemistry in Assessing Cruelty as an Aggravating Factor of Homicide <i>Marcello Seligardi*; Edda E. Guareschi, MD, PhD; Laura Donato; Francesco Calabrò; Rossana Cecchi, MD</i>
12:15 PM – 1:45 PM		BREAK

GENERAL

Genetics and the Elderly

Moderator: Eugenio Alladio, PhD

- 1:45 PM – 2:00 PM **F52** **A Probabilistic Genotyping Analysis of Touch DNA and Transfer Evidence**
*Charis Ann Hickey, BS**; *Amy K. Smith, MS*; *Kelly J. Beatty, MSFS*; *Eric Miller, MS*
- 2:00 PM – 2:15 PM **F53** **How to Talk to Your Genetic Genealogist: The Language of Kinship**
*Tynan Peterson, MA, BFA**; *Melanie Thomas Armstrong, BA*
- 2:15 PM – 2:30 PM **F54** **Forensic Genetic Genealogy: Not Just for Solving Homicides**
*Michelle S. Clark, BS, MS**; *James R. Gill, MD*
- 2:30 PM – 2:45 PM **F55** **Is There a Lesser-Value Type of Violence? Older People Abuse: “The Silence of the Lambs”**
*Ludovica Busillo, MD**; *Gaetano Di Donna, MD*; *Carmen Imma Aquino, MD*;
Mariagrazia Marisei, MD; *Anita Sammarco, MD*; *Pierpaolo Di Lorenzo, MD*;
Emanuele Capasso, MD; *Massimo Niola, PhD*
- 2:45 PM – 3:00 PM **F56** **A Differential Diagnosis Between Elder Neglect and the Pathophysiology of Aging: Medicolegal Aspects From a Case of Death by Hypothermia**
*Lorenzo Franceschetti, MD, PhD**; *Ilaria Tarozzi, MD*; *Valentina Bugelli, PhD, MD*
- 3:00 PM – 3:15 PM **F57** **Caregiver Burden and Elder Abuse: Medicolegal Perspectives From Two Fatal Cases**
*Ilaria Tarozzi, MD**; *Lorenzo Franceschetti, MD, PhD*; *Valentina Bugelli, PhD, MD*
- 3:15 PM – 3:30 PM **BREAK**

Cold Cases

Moderator: Taylor Lowry, BS, BA

- 3:30 PM – 3:45 PM **F58** **Estimating the Biogeographical Origin of the Unidentified Bodies of the Shipwreck of April 18, 2015, in the Mediterranean: A Comparison of Genetic and Anthropological Assessments**
*Lorenzo Franceschetti, MD, PhD**; *Debora Mazzarelli, BSc*; *Venusia Cortellini, PhD*;
Andrea Palamenghi, BSc; *Greta Cena, MD*; *Luca Salvaderi, BSc*; *Carlo Robino, MD, PhD*;
Andrea Verzeletti, MD, PhD; *Cristina Cattaneo, MD, PhD*
- 3:45 PM – 4:00 PM **F63** **The Unknown Child on the Titanic: Identified! Identified?**
*Colleen M. Fitzpatrick, PhD**
- 4:00 PM – 4:15 PM **F59** **A Cold Case Homicide Involving Partial Dismembered Human Remains Found in a Dumpster Resolved by a Three-Decade-Old Complex Diligent Police Investigation**
*Lakshmanan Sathyavagiswaran, MD**; *John Lamberti, BA**; *Tamara Momayez*
- 4:15 PM – 4:30 PM **F60** **Homicide Motel: Justice Served After Decades of Waiting**
*Tracy Brisendine, BA**
- 4:30 PM – 4:45 PM **F61** **A Cold Case Homicide Solved "The Old-Fashioned Way" After 37 Years**
*Beth S. Goodspeed, MS**
- 4:45 PM – 5:00 PM **F62** **Resting in Honored Glory: Identifying the Unknown Soldiers of the Segregated 92nd Infantry Division in World War II**
*Traci L. Van Deest, PhD**; *Sarah Barksdale, PhD*

GENERAL

Thursday—Session II

Crime Scenes

Moderator: Kyle Scherrer, MSFS

- 8:30 AM – 8:45 AM **F64** **Establishing the Identity of the Dead Through a Complimentary Missing Person Registry With Unidentified Dead Bodies in the Indian Context: An Ethical Imperative**
*Nasir Muhammad Ahmad, MSc, PhD**; *Vina R. Vaswani, MD, PhD*
- 8:45 AM – 9:00 AM **F65** **Forensic Archaeology Methodologies Developed in Direct Ratio to Practice and Experience: Innovative Drilling Technique for the Well Excavations of the Committee on Missing Persons in Cyprus**
*Erge Yurtdas, MA**; *Maria Michael, MA, PhD*; *Demet Karşılı, MA*; *Maria Achilleos, PhD, MA*
- 9:00 AM – 9:15 AM **F66** **Exercising Due Diligence: Utilizing Novel Multidisciplinary Methods in the Recovery of Skeletal Remains**
*Brett E. Harding, MBA**; *Jessica Macdonald, BS, MA*; *Zackary Rushton, BA*; *Ryan Belanger, BS*; *Amethyst Crowe, BA*; *Chiara Mancini, DO*
- 9:15 AM – 9:30 AM **F67** **Challenges in Identification and Repatriation of Anjala (India) Skeletal Remains: A Humanitarian Forensic Concern**
*Jagmahender Singh Sehrawat, PhD**
- 9:30 AM – 9:45 AM **F68** **The Ethics of Dead Bodies/Body Remains Following Disasters: A Qualitative Study**
*Vina R. Vaswani, MD, PhD**; *Bert Gordijn, PhD*
- 9:45 AM – 10:00 AM **F69** **Surfing the Dark Web**
*Kim Fallon, BS**
- 10:00 AM – 10:15 AM **F70** **Eye Tracking in Evaluating the Decision-Making of Crime Scene Investigators: A Pilot Study**
*Xiaotang Guo, MSc, MRes**; *Sherry Nakhaeizadeh, PhD*; *David Lagnado, MSc, PhD*
- 10:15 AM – 10:30 AM **BREAK**

Dogs, Fire, and Detection

Moderator: Francesco Sessa, PhD, MS

- 10:30 AM – 10:45 AM **F71** **The Road to Standard Development: An Update From Dogs and Sensors**
*Paola A. Prada-Tiedemann, PhD**; *Sara S. Perry, BS*; *Kenneth G. Furton, PhD*
- 10:45 AM – 11:00 AM **F72** **Human Remains Detection Dogs and Residual Odor**
*Melissa A. Connor, PhD**; *Alexander J. Smith, BA*; *Georgia Swelstad, BS*
- 11:00 AM – 11:15 AM **F73** **A Multidisciplinary Approach to K-9 Human Remains Detection: The Integration of Medical Examiners, Forensic Anthropologists, and Medicolegal Investigators With the K-9 Team**
*Michele S. Slone, MD**; *Angela Soler, PhD*; *Jennifer K. Odien, PhD*; *Justin Z. Goldstein, MA*; *Bradley J. Adams, PhD*; *Nicholas W. Schultz, BS*; *Dennis Cavalli, MPH*; *Scott Mateyaschuk*
- 11:15 AM – 11:30 AM **F74** **The Effect of Compressed Air Foam on the Detection of Ignitable Liquid Residues on Fire Debris Samples**
*Victor Omondi, BSc, MSc**

GENERAL

- 11:30 AM – 11:45 AM **F75** **The Impacts of Thermocouple Insulation Failure on the Accuracy of Temperature Measurement Data in Forensic Fire-Death Scenarios**
*David Silveira, MS**; *Ashley Kendell, PhD*; *Beth Shook, PhD*
- 11:45 AM – 12:00 PM **F76** ***In Situ* Detection of Gunshot Residue on Fabric Using Attenuated Total Reflectance/Fourier Transform Infrared Spectroscopy**
*Igor K. Lednev, PhD**
- 12:00 PM – 12:15 PM **F77** **An Exploratory Study of 3D Fused Deposition Modeling (FDM) and Polylactic Acid (PLA+) Filament Deposition as Toolmark Signatures for Common Source Comparison and Identification**
*Steven Pavlovich, RMT**
- 12:15 PM – 1:00 PM **BREAK**

Birds, Water, Loved Ones, and Convictions

Moderator: Cliff Akiyama, MPH, MA

- 1:30 PM – 1:45 PM **F78** **Fatal Sexual Assaults Toward Animals (Birds) and Bestiality**
*Gilles P. Tournel, MD, PhD**; *Bérengrère Dautreme*; *Audrey Servoise*; *Elise Hardoin*; *Benjamin Charroy*; *Lisa Gouellain*; *Albane Guigne*
- 1:45 PM – 2:00 PM **F79** **A Review of Global Egg and Nestling Theft and Collection Practices**
*Kali E. Goding, MS**; *Ngaio L. Richards, PhD, MSc*; *Fabio Oldoni, PhD*; *Susan C. Underkoffler*
- 2:00 PM – 2:15 PM **F80** **A Retrospective Study of Displacement and Recovery Patterns for Water Fatalities in British Columbia, Canada**
*Britny A. Martlin, BA, MSc**; *Lynne S. Bell, MSc, PhD*
- 2:15 PM – 2:30 PM **F81** **The Importance of Proper Underwater Forensics Investigation**
*Rhonda J. Moniz**
- 2:30 PM – 2:45 PM **F82** **Intimate Partner Violence-Related Strangulation (IPVRS)**
*Katherine M. Brown, PhD**; *Cortney A. Franklin, PhD*; *Tara O. Shelley, PhD*
- 2:45 PM – 3:00 PM **F83** **Sudden Infant Death Syndrome and the Risk Factors of an Unsecure Sleep Environment**
*Hind Abouzahir, MD, PhD**
- 3:00 PM – 3:15 PM **F84** **Examining Youth Gangs From a Trauma Exposure Perspective**
*Cliff Akiyama, MPH, MA**
- 3:15 PM – 3:30 PM **F85** **An Assessment of the Reliability of Subjective Pattern Evidence Disciplines Based on Evidence From Wrongful Convictions**
*John Morgan**
- 3:30 PM – 3:45 PM **F86** **Wrongful Convictions and Jurisprudence of DNA Forensics: An Indian Scenario**
*Garima Chaudhary, PhD**

GENERAL

Friday

Poster Session

- 11:30 AM – 1:00 PM **F87** **A Quiet Place: A Case of a Double Homicide in a Corn Field**
Sofia Bodini, MD; Pietro Clemente C. Salmoirago, MD; Domenico De Stradis; Elena Cavriani, MD; Laura Scotti, MD; Caterina Pelligra, MD; Silvia D. Visonà, MD, PhD; Luca Morini, PhD; Matteo Moretti, MD*
- 11:30 AM – 1:00 PM **F88** **Forensic Sexual and Gender-Based Violence Prevention and Response: A Community-Based Approach Pilot**
Ibrahim Jibril Adem; Lemi Tolu, MD*
- 11:30 AM – 1:00 PM **F89** **Forensic Medicine Practices in Family Medicine in Turkey**
Gozde Gokten Kalkanli; İlkay Kalkanli; Selçuk Çetin*
- 11:30 AM – 1:00 PM **F90** **An Unusual Plastic Bag Suffocation Case: Insights From a Comprehensive Forensic Investigation**
Fausto Licciardello, MD; Mattia Palmeri, MD; Mario Spano, MD; Walter Pintigaro, MD; Manfredi Rubino, MD; Ginevra Malta, MD, PHF; Valentina Triolo, MD; Antonina Argo*
- 11:30 AM – 1:00 PM **F91** **Filling the Gaps of Medical Records: The Hidden Truth Behind an ABO-Incompatible Transfusion**
Gabriele Licciardello, MD; Francesco Sessa, MS, PhD; Monica Salerno, MD; Cristoforo Pomara, MD*
- 11:30 AM – 1:00 PM **F92** **Unboxing Grandma—PMI Estimation in an Advanced State of Decomposition: A Case Report**
Gabriele Licciardello, MD; Andrea Vittorio Maria Failla, MD; Marco Torrisi, MD; Fabrizio Vanaria*
- 11:30 AM – 1:00 PM **F93** **Incised Wounds—Homicide or Suicide? A Case Study**
Gabriele Licciardello, MD; Andrea Vittorio Maria Failla, MD; Pietro Zuccarello, PhD; Maria Paola Pinacchi; Gluseppe Li Rosi, MD; Monica Salerno, MD*
- 11:30 AM – 1:00 PM **F94** **The Quantitative and Qualitative Analysis of Dye in Fentanyl Tablets Via Ultraviolet Visible Spectroscopy: A Forensic Approach**
Charley K. Mitchell, BS; Laura Jones; Charlotte Corbett; Jonathon Dumke; Kristin Ceniccola-Campos*
- 11:30 AM – 1:00 PM **F95** **Traumatic Brain Injury After Defensive Ball Launcher Use in Law Enforcement Operations**
Isabelle, MD; Alain Miras, PhD, MD*
- 11:30 AM – 1:00 PM **F96** **Seasonal Soil Microbial Succession During Carrion Decomposition: Applications for Body Translocation and Postmortem Interval Estimation**
Kelly Waters; Anthony Grigsby; Bethany Mikles, BSc, MS; Jennifer L. Pechal, PhD; M. Eric Benbow, BS, PhD*
- 11:30 AM – 1:00 PM **F97** **An Unusual Accident at Work: Fatally Hit by a Chain**
Laura Ambrosi; Marcello Benevento, MD; Cristina Caterino, DM; Simona Nicoli, DM; Francesco Carravetta, DM; Antonio Straface, MD; Biagio Solarino*

GENERAL

- 11:30 AM – 1:00 PM **F98** **The Evidence for Prosecution of Atrocity Crimes in Ukraine During the Ukraine-Russia Conflict: 2022–Present**
Rhianna van Riel-Jameson, BSc; Sajeel A. Shah, PhD; Nikolas P. Lemos, PhD*
- 11:30 AM – 1:00 PM **F99** **Cannabinoid Hyperemesis Syndrome-Related Death: An Emerging Public Health Threat**
*Fatima Al-Baqali, MD**
- 11:30 AM – 1:00 PM **F100** **Unlocking New Insights Into Inorganic Gunshot Residue Analysis Through Single Particle Inductively Coupled Plasma Time-of-Flight Mass Spectrometry (spICP-MS)**
Rodrigo D. Heringer; James Ranville, MS, PhD; Olga Meili*
- 11:30 AM – 1:00 PM **F101** **Understanding Volatile Odor Signatures From Entomological Samples**
Katlyn Paige Perez; Paola A. Prada-Tiedemann, PhD; Joshua Smith, PhD*
- 11:30 AM – 1:00 PM **F102** **The Findings of Criminal Judgements Related to Driving Under the Influence of Drugs During the 2018–2022 Period in Taiwan: Using District Courts as Examples**
Chu-An Yang; Shuo-Ting Fang; Hong-Bin Wang; Chih-Yun Tseng*
- 11:30 AM – 1:00 PM **F103** **An Analysis of Inorganic Gunshot Residue (IGSR) Nanoparticles by Conventional and Single Particle Inductively Coupled Plasma/Mass Spectrometry (spICP-MS) Using Design of Experiments (DOE)**
Rodrigo D. Heringer; Henrique José Ferraz Fabrino, PhD; Rogerio Araujo Lordeiro, MS*
- 11:30 AM – 1:00 PM **F104** **Maxillary Sinus Dimensions as Predictive Markers for Age and Sex in Northwest Indian Subjects: An MRI-Based Study**
Shubham Thakur, PhD, MSc; Jagmahender Singh Sehrawat, PhD*
- 11:30 AM – 1:00 PM **F105** **A New Frontier in Postmortem Interval (PMI) Estimation: The Assessment of Yellow Bone Marrow Changes Using Dual-Energy Dual-Layer (DECT)**
Vincenzo Cianci; Cristina Mondello, MD*; Gianluca Tripodi; Alessio Asmundo, MD; Michele Gaeta; Tommaso D'Angelo; Giorgio Ascenti; Annalisa Cracò; Patrizia Gualniera; Lorenzo Tornese; Elena Forzese, MD; Gennaro Baldino, MD*
- 11:30 AM – 1:00 PM **F106** **The Detection of the Yellow Fever Virus in Human Remains Using Mass Spectrometry-Based Protein Analysis of Dental Pulp**
Kyra Miller, BS; Kimberlee S. Moran, MSc; Carla Cugini*
- 11:30 AM – 1:00 PM **F107** **The Challenges and Scope of Iris Biometrics in Forensic Science: A Systematic Review**
Sushil Bhatt, Moptom; Jagmahender Singh Sehrawat, PhD*
- 11:30 AM – 1:00 PM **F108** **Child Sexual Abuses in Chandigarh, India: Dimensions and Causes**
*Jagmahender Singh Sehrawat, PhD**
- 11:30 AM – 1:00 PM **F109** **Self-Strangulation Using Electrical Cable Ties: A Case Report and Literature Review**
Andrea Cioffi, MD; Camilla Cecannecchia, MD*; Benedetta Baldari, MD*; Claudia Angela Damato, MD; Isabella Di Marzo, MD; Vittorio Simona, MS*
- 11:30 AM – 1:00 PM **F110** **Fatal Systemic Aspergillosis in a Puerpera: A Rare Case Report and Review of the Literature**
Gennaro Baldino, MD; Giovanni Bartoloni; Antonio Cascio; Simona Pellicano, MD; Giorgia Burrascano, MD*; Cristina Mondello, MD; Alessio Asmundo, MD; Elvira Ventura Spagnolo, MD**

GENERAL

- 11:30 AM – 1:00 PM **F111** **Almost to Lose Your Heads: A Case Series of Accidental Internal Decapitation**
*Andrea Cioffi, MD**; *Camilla Cecannecchia, MD**; *Benedetta Baldari, MD**;
Cappitelli Jeannet, MD; *Vittorio Simona, MS*
- 11:30 AM – 1:00 PM **F112** **The Contribution of Forensic Sciences in the Study and Monitoring of Mycotoxin Levels for the Protection of Public Health**
*Matteo Antonio A. Sacco, MD**; *Cristina Juan, PhD*; *Ana Juan Garcia, PhD*; *Luca Calanna, MD**;
*Maria Cristina Verrina, MD**; *Santo Gratterer, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **F113** **Human Body Dissection and Donation for Research Purposes: An Overview of Current Legislation in European Countries**
*Camilla Cecannecchia, MD**; *Vittorio Simona, MS**; *Andrea Cioffi, MD**
- 11:30 AM – 1:00 PM **F114** **The Concealment of Bodies by Charring: A Case Series and Multidisciplinary Approach**
*Gennaro Baldino, MD**; *Cataldo Raffino, MD*; *Giorgia Burrascano, MD**; *Cristina Mondello, MD*;
Patrizia Gualniera; *Daniela Sapienza, MD*; *Alessio Asmundo, MD*; *Elvira Ventura Spagnolo, MD**
- 11:30 AM – 1:00 PM **F115** **A Multidisciplinary Forensic Approach in Two Complex Cold Cases and a Review of the Literature**
*Gennaro Baldino, MD**; *Daniela Sapienza, MD*; *Stefano Vanin*; *Michele Gaeta*;
Alessio Asmundo, MD; *Elvira Ventura Spagnolo, MD*
- 11:30 AM – 1:00 PM **F116** **“I Can’t Find the Remote”: The Ability to Act After a Single Gunshot Wound to the Head**
*Luca Tomassini**; *Manta Anna Maria, MD**; *Daniele Paolini, MD*;
Petrasso Pia Eugenia Ylenia, MD; *Costantino Ciallella, MD*
- 11:30 AM – 1:00 PM **F117** **The Forensic Point of View of the Serial Murders at the Holmes’ Labyrinth Hotel**
*Matteo Antonio A. Sacco, MD**; *Palmo Tavernese*; *Luca Calanna, MD**;
Maria Cristina Verrina, MD; *Valerio Riccardo Aquila*; *Wandamaria Mazzuca**;
Elisa Folino; *Marinika Salasco*; *Serena Coda*; *Santo Gratterer, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **F118** **Deaths Due to Suicide by Falling From Bridges: The Role of Architectural Barriers and Video Surveillance Systems**
Angela Carbone, MD; *Matteo Antonio A. Sacco, MD**; *Maria Cristina Verrina, MD*;
*Luca Calanna, MD**; *Saverio Gualtieri, MD*; *Giulio Pulpito, MD*; *Roberto Raffaele**;
*Wandamaria Mazzuca**; *Pietrantonio Ricci, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **F119** **The Role of Patient Management in Nursing Homes in the Genesis of Death: Critical Issues in Rehabilitation Programs and Medicolegal Liability Profiles**
*Luca Calanna, MD**; *Matteo Antonio A. Sacco, MD**; *Pierluigi Coscarelli, MD*;
*Maria Cristina Verrina, MD**; *Antonio Pallante, MD*; *Roberto Raffaele**;
Pietrantonio Ricci, PhD, MD; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **F120** **Intrafamilial Homicide: A Series of Cases From Southern Italy**
*Alessandro Feola, MD, PhD**; *Mariavictoria De Simone, MD*; *Filomena Casella, MD*;
Carmen Sementa, MD; *Pasquale Giugliano, MD*; *Alfonso Maiellaro, MD*; *Omero Pinto, MD*;
Carlo Pietro Campobasso, MD, PhD
- 11:30 AM – 1:00 PM **F121** **To Kill or to Be Killed—A Differential Diagnosis in Sharp Force Injuries to the Neck: A Case Series**
*Gianluca Piras, MD**; *Manta Anna Maria, MD**; *Vittorio Simona, MS**; *Benedetta Baldari, MD**;
*Luigi Cipolloni, MD**

GENERAL

- 11:30 AM – 1:00 PM **F122** **The Most Dangerous Games: A Ten-Year Retrospective Review of Homicidal Deaths Associated With Dice and Domino Games in Shelby County, Tennessee**
Lyle William Christiansen, MD; Danielle Harrell, DO; Erica Curry, MD*
- 11:30 AM – 1:00 PM **F123** **Artificial Intelligence (AI) -Based Automated Facial Recognition Systems and Contributions of Cone-Beam Computed Tomographs (CBCTs)**
Jagmahender Singh Sehrawat, PhD; Deeksha Sankhyan; Shubham Thakur, PhD, MSc*
- 11:30 AM – 1:00 PM **F124** **Do Gender, Age, Body Mass Index, and Height Affect Eye Biometrics in North Indian Adults?**
Sushil Bhatt, Moptom; Jagmahender Singh Sehrawat, PhD*
- 11:30 AM – 1:00 PM **F125** **Understanding the Crisis of the Persons Reported Missing in East Tennessee**
Kamar Afra; Liam Tran, PhD*
- 11:30 AM – 1:00 PM **F126** **Fatal Entrapment Under a Lift-Up Storage Bed: A Rare Case of Accidental Death by Positional Asphyxia**
Andrea Cioffi, MD; Camilla Cecannecchia, MD*; Solenne Miriam, MD; Milone Valentina, MD; Benedetta Baldari, MD**

Friday—Session I

Medicolegal Death Investigations

Moderator: TBD

- 8:30 AM – 8:45 AM **F127** **Ready Investigator One: The Use of Computer-Based Simulation Games for Medicolegal Investigation Training and Education**
Jennifer E. Dierksen, MD; Kolby J. Spiker, MS; Marissa B. Valencia; Deanna A. Oleske, MD*
- 8:45 AM – 9:00 AM **F128** **Safety Considerations for Medicolegal Death Investigators**
*Taylor Lowry, BA, BS**
- 9:00 AM – 9:15 AM **F129** **Medicolegal Death Investigation: Organizational Climate and Job-Related Stress**
Julie A. Howe, MBA; Steve Clark, PhD*; Amy M. Hawes, MD*
- 9:15 AM – 9:30 AM **F130** **Death Investigation: Factors Associated With Scene Investigation and Autopsy Completion**
*Jennifer R. Snippen, PhD**
- 9:30 AM – 9:45 AM **F131** **Medicolegal Death Investigation Data Modernization**
*Margaret Warner, PhD**
- 9:45 AM – 10:00 AM **F132** **Medicolegal Death Investigations: Interactive Mapping of Key Data and Organizations**
Nelson A. Santos, MPA, BA; Jennifer R. Snippen, PhD*; Jeri D. Roper-Miller, PhD*
- 10:00 AM – 10:15 AM **F133** **Infrastructure-Related Insights About the Medicolegal Death Investigation Community From the Bureau of Justice Statistics' (BJS) Census of Medical Examiner and Coroner Offices (CMEC)**
Kelly Keyes, BS; Kathryn E. Greenwell, BA; Hope M. Smiley-McDonald, PhD; Connor Brooks, MSc, MA; Heather G. Meier, BS; Jeri D. Roper-Miller, PhD*
- 10:15 AM – 10:30 AM **BREAK**

GENERAL

Medicolegal Death Investigations and Labs

Moderator: TBD

- 10:30 AM – 10:45 AM **F134** **Standards Development Activities in Medicolegal Death Investigation, Including Disaster Victim Identification**
*Kelly Keyes, BS**; *Michelle Rippy, MFS, EdD*
- 10:45 AM – 11:00 AM **F135** **Fostering the Role of Forensic Epidemiologists in Medical Examiner and Coroner Offices: A Collaborative Partnership for Enhanced Public Health Response**
*Abigail J. Grande, BS, MPH**; *Sarah Lathrop, DVM, PhD*; *Olufemi Ajumobi, PhD*;
Manreet Bhullar, MPH; *Megan K. Broekemeier, MPH*; *Myles D. Davenport, MPH*;
Yang H. Martin, MS; *Mojde Mir, MPH*; *Michael J. Staley, PhD*; *Kimberly Repp, PhD*
- 11:00 AM – 11:15 AM **F136** **Modern Morgue Design: How Current Architecture and Technology Help Mortuary Personnel Do Their Job**
*Denise C. Murmann, DDS**
- 11:15 AM – 11:30 AM **F137** **Forensic Laboratory Needs Technical Working Group: The History and an Opportunity**
*Danielle McLeod-Henning**; *Lucas W. Zarwell, MFS*
- 11:30 AM – 11:45 AM **F138** **Crime Laboratory Quality Assurance Insights From the 2020 Census of Publicly Funded Forensic Crime Laboratories**
*Jeri D. Roper-Miller, PhD**; *Hope M. Smiley-McDonald, PhD*; *Connor Brooks, MSc, MA*;
Erin P. Forry, MS
- 11:45 AM – 12:00 PM **F139** **Building Laboratory Infrastructure—Recent Findings From the Bureau of Justice Statistics' 2020 Census of Publicly Funded Forensic Crime Laboratories**
*Connor Brooks, MSc, MA**; *Hope M. Smiley-McDonald, PhD*; *Jeri D. Roper-Miller, PhD*;
Kathryn E. Greenwell, BA
- 12:00 PM – 1:30 PM **BREAK**

Case Studies I

Moderator: Erin Worrell, BSc

- 1:30 PM – 1:45 PM **F140** **The Search for Collateral Deaths Derived From the Events of the 1921 Tulsa Race Massacre**
*Phoebe R. Stubblefield, PhD**; *Angela Berg, MA, RN*; *Robert B. Pickering, PhD*
- 1:45 PM – 2:00 PM **F141** **The Fernanda Maciel Case: The Results of Forensic Reconstruction**
*Carlos A. Gutierrez, PhD, MEd**
- 2:00 PM – 2:15 PM **F142** **Trailside Murder: A Random, Vicious Attack**
*Kelsie Bryand, MS, BA**; *Andra Lewis-Krick, PhD*
- 2:15 PM – 2:30 PM **F143** **Hanged in the Window of His House: An Accidental Hanging Clarified Only After a Late Scene Examination**
*Barbara Iga Smyk, DM**; *Cristina Cordeiro*; *Joao Pinheiro, MD, PhD*
- 2:30 PM – 2:45 PM **F144** **A Case Study: Parallels of Intentionally Inflicted Blunt Force Trauma and Blunt Force Trauma in Motor Vehicle Collisions (MVCs)**
*Emily Ditto, BA**; *Brett Bulington, EMT, MDI**; *Carrie Costello, MS*

GENERAL

- 2:45 PM – 3:00 PM **F145** **The Occurrence of Natural Deaths in Motor Vehicle Collisions: A Case Study**
Emily Ditto, BA; Carrie Costello, MS*
- 3:00 PM – 3:15 PM **F146** **Visualizing Trends in Subway-Related Fatalities in New York City, NY: 2008–2021**
Justin Z. Goldstein, MA; Jeremy A. Simmons, MS; Bradley J. Adams, PhD*
- 3:15 PM – 3:30 PM **BREAK**

Case Studies II

Moderator: TBD

- 3:30 PM – 3:45 PM **F147** **The Secret Life of Dorothy**
*Melanie Thomas Armstrong, BA**
- 3:45 PM – 4:00 PM **F148** **1 . . . 2 . . . 3 . . . Baby Deaths: A Case Involving One Common Denominator**
*Anita Marie Roman**
- 4:00 PM – 4:15 PM **F149** **Suicidal Decapitation: Bizarre Ingenuity**
*Stacey L. Chepren, MFS, MSc**
- 4:15 PM – 4:30 PM **F150** **Beware of People With Pens in Shirt Pockets and Walking With Canes: Regarding Two Medicolegal Autopsies**
Fabrice Dedouit, MD, PhD; Agathe Bascou, MD; Ryan Toutin, MD; Anthony Ramirez, MD; Manuêlo Turkiewicz, MD; Frederic Savall, MD, PhD; Fatima Zohra Mokrane, MD, PhD; Norbert Telmon, MD, PhD*
- 4:30 PM – 4:45 PM **F151** **A Story With a Not-So-Ferret-ale Ending: What to Do When OBTI Won't Work**
*Amanda Fitch, MS**
- 4:45 PM – 5:00 PM **F152** **Equestrian Death Investigation Best Practices: An Effort to Support Fatal Rotational Fall Analysis**
*Stacey L. Chepren, MFS, MSc**

Friday—Session II

Education I

Moderator: TBD

- 8:30 AM – 8:45 AM **F153** **Does the Delivery Method Determine the Success Rate in an Introduction to Forensic Science Course?**
*Claire E. Shepard, MS**
- 8:45 AM – 9:00 AM **F154** **Restructuring the University Forensic Science Seminar: Lessons for New, Current, and Future Instructors**
Joe C. Trevino, MS, BS; Amanda A. Murray, PhD**
- 9:00 AM – 9:15 AM **F155** **Active Learning in Forensic Biology**
*Kristi Bugajski, PhD**

GENERAL

9:15 AM – 9:30 AM	F156	The Use of Instructional Strategies in Forensics Education: Results From a National Survey of Post-Secondary Forensic Science Educators <i>Tamra Legron-Rodriguez, PhD*</i>
9:30 AM – 9:45 AM	F157	Courtroom Testimony Training for Professional and Expert Witnesses Through the Lens of a Laboratory Director—Optional or Mandatory: The Saint Lucia Experience <i>Fernanda Henry, BSc, MSc*; Alfredo Eugene Braxton-Walker, FRCPath, MBBS</i>
9:45 AM – 10:00 AM	F158	Investigating Potential Factors That Can Impact Students’ Professional Identities in Forensic Science <i>Abigail Castillo*; Cameron Bechard, BS; Tamra Legron-Rodriguez, PhD; Nicole Lapeyrouse, PhD</i>
10:00 AM – 10:15 AM	F159	Bridging the Gap Between Academia and Police Casework <i>Sofia Goia*</i>
10:15 AM – 10:30 AM		BREAK

Education II

Moderator: TBD

10:30 AM – 10:45 AM	F160	International Forensics Summer School (IFOSS): Fostering Interdisciplinary Excellence in Forensic Sciences, Including Multimedia Forensics and Biometrics, in Its Second Edition <i>Sebastiano Battiato, PhD*; Donatella Curtotti; Giovanni Ziccardi</i>
10:45 AM – 11:00 AM	F161	The African Forensic Sciences Academy (AFSA)—Transforming the Forensic Science Landscape in Africa <i>Antonel Olckers, PhD*; Mehdi Ben Khelil, MD</i>
11:00 AM – 11:15 AM	F162	An Evaluation of Italian Medical Students’ Attitudes and Knowledge Regarding Forensic Medicine: Could This Course Guide the Student in Choosing the Residency Program? <i>Giovanni Aulino, MD*; Flavia Beccia, MD; Michele Rega, MD; Chiara Siodambro, MD; Giuseppe Capece, MD; Stefania Boccia, MD; Antonio Lanzone, MD, PhD; Antonio Oliva, PhD</i>
11:15 AM – 11:30 AM	F163	A Comparative Forensic Education Via a Study-Abroad Approach: Pedagogical Experiences in the United Kingdom, Scotland, and Canada <i>John Z. Wang, PhD*</i>
11:30 AM – 11:45 AM	F164	Unveiling Forensic Science Topics for Enhanced Knowledge Discovery <i>Amir Alipour Yengejeh, MD*; Larry Tang, PhD</i>
11:45 AM – 12:00 PM	F165	Macro, Meso, Micro: Core Concepts in the Development of Forensic Science <i>Max M. Houck, PhD*</i>
12:00 PM – 12:15 PM	F166	Turn RIGHT: A Roadmap to Improving Research and Technology Transition in Forensic Science <i>Jeri D. Roper-Miller, PhD*; Rebecca L. Shute, MS*; Gabrielle Elise DiEmma, MS; Cody Sorrell, MS, BA</i>
12:15 PM – 12:30 PM	F167	Detecting Illicit Use of AI and Other Cheating in Forensic Student Submissions: Ensuring Justice for All Student Assignments <i>Stewart Walker, PhD, BSc*</i>
12:30 PM – 1:30 PM		BREAK

GENERAL

Standards

Moderator: TBD

- 1:30 PM – 1:45 PM **F168** **The National Institute of Justice Research and Development Program**
*Lucas W. Zarwell, MFS**
- 1:45 PM – 2:00 PM **F169** **Emergency Infrastructure and Response Among the Nation’s Medical Examiner and Coroner Offices: Data From the 2018 CMEC**
Micaela A. Ascolese, BA; Kelly Keyes, BS; Jeri D. Roper-Miller, PhD; Sean Wire, ABD; Hope M. Smiley-McDonald, PhD*
- 2:00 PM – 2:15 PM **F170** **Forensic Science Standards: A Look at Conformity Assessment and Implementation Models in the United States and Abroad**
Allison Getz, MS; Karen K. Reczek**
- 2:15 PM – 2:30 PM **F171** **First "One Stop" Sexual Assault Center in Turkey**
Sotirios Kalfoglou; Asli Ofluoğlu; Zehra Alara Kaplan; Ersi Abaci Kalfoglou*
- 2:30 PM – 2:45 PM **F172** **Challenges and Solutions for the Implementation of Standards in the Non-Traditional Forensic Setting**
Vincent J. Desiderio, MS; Steven L. Johnson, BS*; John Paul Jones, BS, MBA; Allison Getz, MS; Mark D. Stolorow, MS, MBA*
- 2:45 PM – 3:00 PM **F173** **Reporting on Ethics Committee Approval in Cadaveric-Based Research Publications: An Update of a Five-Year Study**
Nasir Muhammad Ahmad, MSc, PhD; Vina R. Vaswani, MD, PhD*
- 3:00 PM – 3:15 PM **F174** **Current Hiring Requirements and Expectations in Forensic Science: Considerations for FEPAC, OSAC, ASTM, and Employers**
*Joe C. Trevino, MS, BS**
- 3:15 PM – 3:30 PM **F175** **There Are 16,000 Predatory Journals: A Practical Guide to Identifying and Avoiding Deceptive Publications**
Jeff Teitelbaum, MD; Gerald LaPorte, MSFS*
- 3:30 PM – 3:45 PM **F176** **Artificial Intelligence, the Law, and Forensic Science: New Scenarios and Ethical Implications**
Giuseppina Seppini, MSN; Iolanda Ippolito, MPA*
- 3:30 PM – 3:45 PM **F177** **Suicides in Prison: Fatalities or Predicted Tragedies?**
Mauro Midiri, MD; Giuliana Malandrino, MD; Giovanni Scalzo, MD; Chiara Rizzo, MD; Daniele Celesia, MD; Marco La Mantia, MD; Chiara Stassi, MD; Valentina Triolo, MD; Stefania Zerbo*

JURISPRUDENCE

Thursday

The Relationship Between Forensic Science Standards and Justice

Moderator: Lynn Garcia, JD

- | | | |
|---------------------|-----------|---|
| 8:00 AM – 8:30 AM | G1 | The Use of Forensic Science Standards in the Legal Process: An Update
<i>Dana Delger, JD*</i> ; <i>John Paul Jones, BS, MBA*</i> |
| 8:30 AM – 9:00 AM | G2 | Standards on the OSAC Registry—Improving Justice for All
<i>Mark D. Stolorow, MS, MBA*</i> ; <i>Vincent Desiderio, Jr., MSFS*</i> ; <i>John Paul Jones, BS, MBA</i> ;
<i>Allison Getz, MS</i> ; <i>Steven L. Johnson, BS</i> |
| 9:00 AM – 9:30 AM | G3 | The Benefits of a Coherent System of Forensic Standards: From the Classroom to the Courtroom
<i>Vincent J. Desiderio, MS*</i> ; <i>Mark D. Stolorow, MS, MBA*</i> ; <i>John Paul Jones, BS, MBA</i> ;
<i>Allison Getz, MS</i> ; <i>Steven L. Johnson, BS</i> |
| 9:30 AM – 10:00 AM | G4 | Cross-Examining Experts on Standards and Other Authoritative References
<i>Terry-Dawn Hewitt, JD, LLM*</i> |
| 10:00 AM – 10:15 AM | | BREAK |

The Critical Roles of Prosecutors and the Judiciary

Moderator: M.J. Menendez, JD

Co-Moderator: Mary Dayton, JD

- | | | |
|---------------------|-----------|---|
| 10:15 AM – 10:45 AM | G5 | “Fairness for for All”: A Discussion of the Evolution of Legal Principles and Practical Systems Designed to Ensure Fairness in Forensic Testimony and in the Criminal Justice System as a Whole
<i>John Haried, JD*</i> |
| 10:45 AM – 11:15 AM | G6 | Using Forensic Science to Speak for a Victim Who Was Unjustly Silenced in Murder
<i>Valeria N. Spencer, JD*</i> |
| 11:15 AM – 11:45 AM | G7 | A Critical Re-Examination
<i>Barbara P. Hervey, JD*</i> |
| 11:45 AM – 12:15 PM | G8 | Why Judges Won’t Be Gatekeepers
<i>Donald E. Shelton, JD, PhD*</i> |
| 12:15 PM – 1:15 PM | | BREAK |

Effective Governance and New Resources for Guarding Against Wrongful Conviction

Moderator: Paul Messner, JD

Co-Moderator: Sarah Chu, MS

- | | | |
|-------------------|-----------|---|
| 1:15 PM – 1:45 PM | G9 | Polygraph Testing and Wrongful Conviction
<i>Tania C. Brief*</i> ; <i>Lauren Gottesman*</i> |
|-------------------|-----------|---|

JURISPRUDENCE

1:45 PM – 2:15 PM	G10	Are Courts Convicting People in Traffic Accident Cases Based on Questionable Data From Crash Data Recorders? <i>Peter Alexander, PhD*</i> ; <i>Brendan Bourdage, PhD</i> ; <i>John Smith, MSEE, PE</i>
2:15 PM – 2:45 PM	G11	Wrongful Convictions Demonstrate the Need for Governance Improvements in Forensic Science <i>John Morgan*</i>
2:45 PM – 3:00 PM	G12	The National Association of Forensic Science Boards: A Collaborative Effort for State-Level Forensic Oversight <i>Leigh M. Tomlin, JD*</i> ; <i>Lynn Garcia, JD</i> ; <i>John Morgan</i> ; <i>Marna L. McLendon, JD, MFS</i>
3:00 PM – 3:20 PM	G13	Preparing for Court: The Research Forensic Library as a New Resource for the Forensic Legal Community <i>Jeff Teitelbaum*</i> ; <i>Gerald LaPorte, MSFS</i>
3:20 PM – 3:30 PM		BREAK

Statistical Concepts, Emerging Technologies, and Our Collective Duty to Correct

Moderator: Terri Rosenblatt, JD

3:30 PM – 4:00 PM	G14	The Real Action at Court Has Always Been Activity <i>Tim Kalafut, PhD*</i>
4:00 PM – 4:30 PM	G15	Presumption of Innocence, Probable Cause, and Prior Probability—Bayes Meets Due Process <i>Michael J. Salyards, PhD, MFS*</i>
4:30 PM – 5:00 PM	G16	Preventing and Correcting DNA Errors and Wrongful Convictions <i>Greg Hampikian, PhD*</i>
5:00 PM – 5:30 PM	G17	Forensic Genetic Genealogy and the Court System—Where Are We Going? <i>Colleen M. Fitzpatrick, PhD*</i>

Friday

Poster Session

11:30 AM – 1:00 PM	G18	The Incidence of Expert Testimony Within Federal Sentences in the Criminal Justice System of Mexico <i>Fernanda Lopez-Escobedo, PhD*</i> ; <i>Zoraida García-Castillo, PhD</i> ; <i>Karla I. Vázquez-Barrera, JD</i> ; <i>N. Sofía Huerta-Pacheco, PhD</i>
11:30 AM – 1:00 PM	G19	Gender Inequality and Medical Malpractice: A Sneaky Oversight <i>Julia Lazzari, MD*</i> ; <i>Naomi Iacoponi, MD*</i> ; <i>Ilaria Marcacci, MD</i> ; <i>Chiara Casula, MD</i> ; <i>Rebecca Pieretti, MD</i> ; <i>Arianna Baronti, MD</i>
11:30 AM – 1:00 PM	G20	A Difficult Patient to Frame: An Overview of Critical Issues in the Management of the Psychiatric Patient After the Closure of Judicial Psychiatric Hospitals in Italy <i>Carla Occhipinti, MD*</i> ; <i>Naomi Iacoponi, MD*</i> ; <i>Julia Lazzari, MD</i> ; <i>Giacomo Visi, MD</i> ; <i>Benedetta Nardi, MD</i>

JURISPRUDENCE

- 11:30 AM – 1:00 PM **G21** **Post-Conviction DNA Testing: Annual Summary of an Innocence Project and University Collaboration to Identify and Evaluate Post-Conviction Cases**
*Katherine A. Roberts, PhD**; *Paula Mitchell, JD*; *Paige McGrail, JD*; *Eliza Haney, JD*;
Ayesha Hussain, JD; *Hilary Morman, JD*; *Mehul Anjaria, BS, MS*
- 11:30 AM – 1:00 PM **G22** **Workplace Violence Against Health Care Workers: An Umbrella Review of Systematic Reviews and Meta-Analyses**
*Giovanni Aulino, MD**; *Flavia Beccia, MD*; *Maria Francesca Rossi, MD*; *Carlotta Amantea, MD*;
Francesca Cittadini, PhD; *Antonio Oliva, PhD*
- 11:30 AM – 1:00 PM **G23** **The Positive Impact of Clinical Forensic Medicine Units on Profiles of Medicolegal Cases for Insight and Reviewing Strategies to Plan Against Crime**
*Rajender Kumar, MBBS, MD**; *Mukta Kumar, MBBS, MD**; *Munish Sharma, MBBS MD*;
Umesh Modi, MBBS, MS; *Nitika Saini, MBBS, MD*
- 11:30 AM – 1:00 PM **G24** **The Impact of Post-Traumatic Stress Disorder (PTSD) on Those Seeking Asylum**
*Hasna M. Sheikh, LLM**; *Elsbeth Guild*; *Nicholas P. Lemos, PhD*
- 11:30 AM – 1:00 PM **G25** **Legal Tools to Advocate for Forensic Standards in Missing Persons' Cases**
*Maria Nectaria Antoniou, LLM, MSt**; *Vaughn Rossouw, LLM, LLB**; *Stephen A. Fonseca, BTech*;
Pierre Guyomarc'h, PhD
- 11:30 AM – 1:00 PM **G26** **Guidelines for the Judicial Assessment of Expert Evidence in the Mexican Legal System**
*Zoraida García-Castillo, PhD**; *Fernanda Lopez-Escobedo, PhD*; *Anahy Rodriguez-González, PhD*
- 11:30 AM – 1:00 PM **G27** **Exploring the Contours of Bridging the Gap Between Forensic Science and Law in India**
*Pancham Preet Kaur, LLM**
- 11:30 AM – 1:00 PM **G28** **Challenging Scientists: A Three-Tier System for Educating Lawyers in Forensic Techniques**
*Dinkar Vr, LLM, PHD**

Understanding Our Limits: Study Design, Black Boxes, and the Trouble With Inconclusives

Moderator: Thomas Busey

- 8:00 AM – 8:30 AM **G29** **An FBI Laboratory Decision Analysis “Black Box” Studies in Pattern Evidence Examinations**
*Gene Peters**
- 8:30 AM – 9:00 AM **G30** **Error Rate Studies: The Good, the So-So, and the Unacceptable**
*Kori Khan, MD**; *Alicia Laura Carriquiry, PhD*
- 9:00 AM – 9:30 AM **G31** **Inconclusive Decisions and Error Rates in Forensic Science**
*Henry J. Swofford, MSFS, PhD**; *Steven Lund, PhD*; *Hariharan Iyer, PhD*; *John M. Butler, PhD*;
Johannes Soons, PhD; *Robert M. Thompson, MFS, BS*; *Vincent Desiderio, Jr., MSFS*;
John Paul Jones, BS, MBA; *Robert Ramotowski, MS*
- 9:30 AM – 10:15 AM **G32** **A New Black Box Study—Part I: The Accuracy of Latent Print Examiners: What More Do We Know in a Decade?**
*R. Austin Hicklin, PhD**; *Nicole M. Richetelli, PhD**; *AshLee Taylor, MS**;
*JoAnn Buscaglia, PhD**

JURISPRUDENCE

10:15 AM – 10:45 AM **G33** **A New Black Box Study—Part II: Bullets (NIST/Noblis)**
R. Austin Hicklin, MA, BA;* *Nicole M. Richetelli, PhD*;* *AshLee Taylor, MS*;*
*JoAnn Buscaglia, PhD**

10:45 AM – 11:00 AM **BREAK**

The Role of Medical Professionals and Digital Multimedia Evidence in Ensuring Justice

Moderator: Nicolas Hughes, JD, MS

Co-Moderator: Leigh Tomlin, JD

11:00 AM – 11:30 AM **G34** **In a Manner of Speaking: A Medical and Legal Perspective on the Problem of Manner of Death Testimony in Criminal Trials and What We (All) Should Be Doing About It**
Allison Lewis, JD, BA;* *Andrew Baker, MD**

11:30 AM – 12:00 PM **G35** **Misleading Sexual Assault Nurse Examiner (SANE) Testimony in Child Sexual Abuse Cases**
*Nancy R. Downing, JD**

12:00 PM – 12:30 PM **G36** **Modeling Influences on the Understanding of Digital and Multimedia Evidence (DME) by Attorneys and Digital Forensic Examiners (DFE) Within the United States Criminal Justice System**
*Joseph Levi White, PhD**

12:30 PM – 1:45 PM **BREAK**

History and Current State of DNA Mixture Interpretation (for Lawyers)

Moderator: Dawn Boswell, JD

Co-Moderator: Jarrah Kennedy, MSFS

1:45 PM – 2:15 PM **G37** **DNA Mixture Interpretation: A History of Field and NIST Foundation Study Findings**
*John M. Butler, PhD**

2:15 PM – 3:15 PM **G38** **DNAmix 2021: Inter-Laboratory Variation in the Interpretation of DNA Mixtures**
R. Austin Hicklin, MA, BA;* *Jonathan Davoren, MSc*;* *Nicole M. Richetelli, PhD;*
Robert Bever, PhD

3:15 AM – 3:30 PM **BREAK**

Human Factors in Forensic DNA Interpretation: Strategies for Effective Implementation

Moderator: Dawn Boswell, JD

Co-Moderator: Jarrah Kennedy, MSFS

3:30 PM – 4:00 PM **G39** **An Overview of the NIST/NIJ Expert Working Group on Human Factors in Forensic DNA Interpretation Report**
Melissa Taylor;* *Nikola Osborne, PhD**

4:00 PM – 4:45 PM **G40** **Improving Forensic DNA Interpretation Protocols and Reports Through the Implementation of Human Factors Recommendations**
Britton Morin, MSFS;* *Nikola Osborne, PhD*

ODONTOLOGY

Thursday

Poster Session

- | | | |
|--------------------|-----------|---|
| 11:30 AM – 1:00 PM | H1 | A Pilot Study on Postmortem Determination of Drug Abuse on Dental Tissues
<i>Ilenia Bianchi, DMD*</i> ; <i>Marta Cippitelli, PhD</i> ; <i>Erika Buratti, PhD</i> ; <i>Gianmario Mietti, PhD</i> ; <i>Alice Cerioni, PhD</i> ; <i>Roberto Scendoni, PhD</i> ; <i>Rino Froidi, MSc</i> ; <i>Vilma Pinchi, PhD</i> ; <i>Mariano Cingolani, MD, MSc</i> |
| 11:30 AM – 1:00 PM | H2 | An Overview and Evaluation of Forensic Dentistry Cases With Trauma Damage and Bone Fractures
<i>Huseyin Afsin</i> ; <i>Gulnaz T. Javan, PhD*</i> |
| 11:30 AM – 1:00 PM | H3 | Justice for the Vanished but Not Missing
<i>Elizabeth Ruth Smith, DDS*</i> |
| 11:30 AM – 1:00 PM | H4 | A Picture Reveals the Truth!
<i>Megha Shah, DDS*</i> |
| 11:30 AM – 1:00 PM | H5 | Postmortem Histological Changes of Dental Pulp for Postmortem Interval Estimation: A Pilot Study
<i>Ilenia Bianchi, DMD*</i> ; <i>Ana Margarida Rodrigues, MSc</i> ; <i>Diana Augusto, MSc</i> ; <i>João Aquino, PhD</i> ; <i>Isabel Fonseca, MD, PhD</i> ; <i>Vilma Pinchi, PhD</i> ; <i>Cristiana Palmela Pereira, MSc</i> ; <i>PhD</i> |
| 11:30 AM – 1:00 PM | H6 | The Forensic Anthropological Significance of Dental Calculus Deposits as Proxy for Identity of the Host and the Oral Microbiota: A Systematic Review
<i>Jagmahender Singh Sehrawat, PhD*</i> ; <i>Niraj Rai, PhD</i> |
| 11:30 AM – 1:00 PM | H7 | The Use of the Disaster Victim Identification (DVI) Method for a Mass Casualty Bus Crash in Manitoba, Canada
<i>Noriko B. Boorberg, DMD, MEd*</i> ; <i>Trenna Reeve, DMD</i> ; <i>Carla Penner, DDS</i> |
| 11:30 AM – 1:00 PM | H8 | Color Change in Deciduous and Permanent Enamel and Dentin Due to Burning
<i>Michal Peer, MSc*</i> ; <i>Rachel Sarig, DMD, PhD</i> |
| 11:30 AM – 1:00 PM | H9 | Evaluating the Relationship Between Various Oral Pathological Conditions and the Persistence of Lip Prints
<i>Jagmeet Kaur, BSc, MSc*</i> ; <i>Mukesh Kumar K. Thakar, PhD</i> |

To ID or Not to ID ... Is This a Question?

Moderator: Ray Miller, DDS

- | | | |
|-------------------|------------|---|
| 8:30 AM – 8:45 AM | H10 | The $\delta^{18}\text{O}$ Values as Chemical Signatures of Geo-Locality of Ajnala Skeletal Remains: A Forensic Odontological Study
<i>Jagmahender Singh Sehrawat, PhD*</i> ; <i>Niraj Rai, PhD</i> |
| 8:45 AM – 9:15 AM | H11 | Investigating the Influence of Sex and Ethnicity on Human Identification Using Palatal Scans
<i>Botond Simon, DMD*</i> ; <i>Aida Roudgari</i> ; <i>Akos Mikolicz</i> ; <i>Arvin Irani Shahbazi</i> ; <i>Janos Vag</i> |

ODONTOLOGY

9:15 AM – 9:30 AM	H12	A Colorimetric Study of Burnt Teeth as a Diagnostic Tool to Aid in Forensic Dental Identification <i>Emilio Nuzzolese, DDS, PhD*</i> ; <i>Matteo Aliberti, DDS</i> ; <i>Lucia Tattoli, MD, PhD</i> ; <i>Giancarlo Di Vella, MD, PhD</i>
9:30 AM – 9:45 AM	H13	A Multinational Classification of Dental Resin Composites for Forensic Purposes <i>Emilio Nuzzolese, DDS, PhD*</i> ; <i>Davide Bosio, MD</i> ; <i>Mariagrazia Putzu, MD</i> ; <i>Giancarlo Di Vella, MD, PhD</i>
9:45 AM – 10:00 AM	H14	A Radiographic Field Guide to Modern Dental Restorative Materials <i>Elif D. Aksoylu, DMD, MPH*</i>
10:00 AM – 10:15 AM	H15	Artificial Intelligence-Driven Dental Comparison for Human Identification in Mass Disasters <i>Guillermo Ramírez*</i> ; <i>Antonio David Villegas, MSc, BS</i> ; <i>Tzipi Kahana</i> ; <i>Óscar Cordón</i> ; <i>Oscar Ibáñez Panizo, PhD</i>
10:15 AM – 10:30 AM	H16	Prehistoric Therapeutic Dentistry in the Mid-Atlantic United States: The Use of Multi-Modal Imaging on Ancient Dental Specimens <i>John B. Nase, DDS*</i> ; <i>Dana Kollmann, PhD*</i>
10:30 AM – 10:45 AM		BREAK

Identification Plus

Moderator: Sarah Friend, DDS

10:45 AM – 11:00 AM	H17	Dental Identification After an Arson Attack <i>Camilla George, MSc, LLM*</i>
11:00 AM – 11:15 AM	H18	Developing an Animal Model for Investigating Tissue Deterioration of the Palate by Intraoral Scanner <i>Janos Vag*</i> ; <i>Sandor Mikó</i> ; <i>Arvin Irani Shahbazi</i>
11:15 AM – 11:30 AM	H19	The Establishment of a Provincial Identification Unit and Its Promising Results <i>Corinne DANjou, DMD*</i>
11:30 AM – 11:45 AM	H20	The Potential of Smile Photographs and a PM Intraoral Scanner for Dental Identification <i>Rosario Guerra Martí*</i> ; <i>Emilio Nuzzolese, DDS, PhD*</i> ; <i>Andrea Valsecchi, PhD</i> ; <i>Oscar Ibáñez Panizo, PhD</i> ; <i>Inmaculada Alemán, PhD</i> ; <i>Sven Benthaus</i> ; <i>Domenico Dellaia, MD</i>
11:45 AM – 12:00 PM	H21	The Production of Dental Remains Replicas With 3D Modeling <i>Robin A. Ainsworth, DDS, MS*</i> ; <i>Daniel Sierra</i> ; <i>James Pizzini, BS</i> ; <i>Charles DeFreest, DDS</i> ; <i>Mario Ruybal</i>
12:00 PM – 1:15 PM		BREAK

ODONTOLOGY

Still Biting After All These Years ...

Moderator: Cristiana Palmela Pereira, PhD

1:15 PM – 1:30 PM	H22	Odontometrics and Artificial Intelligence: A Comparative Study for Best Prediction of Facial Geometry in Medicolegal Cases <i>Nandini Chitara, MSc*; Rakesh Meena, MSc; Ankita Guleria, MSc; Kewal Krishan, PhD</i>
1:30 PM – 1:45 PM	H26	Insights From Wrongful Convictions Related to Bitemark Analysis <i>John Morgan*</i>
1:45 PM – 2:00 PM	H24	The Evolution of the American Board of Forensic Odontology Standards and Guidelines for Evaluating Bitemarks <i>Richard H. Fixott, DDS*</i>
2:00 PM – 2:15 PM	H25	Bitemarks: Can We Agree? <i>James F. Goodrich, BDS*; Mark Eilers, DMD</i>
2:15 PM – 2:30 PM	H23	Advancing Forensic Odontology Standards: Insights and Updates <i>Kenneth W. Aschheim, DDS*</i>
2:30 PM – 2:45 PM	H27	Expert Witness Testimony and the Standard of Care Involving Swallowed Dental Objects <i>Raymond G. Miller, BA, DDS*</i>
2:45 PM – 3:00 PM	H28	Justice for Mariyah: Bitemark Analysis and the Power of Exclusion <i>Grace Chung, DDS*</i>
3:00 PM – 3:45 PM		BREAK

How Old Are You Now?

Moderator: Lindsay Spears, DDS

3:45 PM – 4:00 PM	H29	The Good, Bad, and Ugly of Bitemarks <i>Christy Chang*; Shirley Lewis, BDS, MSD</i>
4:00 PM – 4:15 PM	H30	Dental Age Assessment Through a Learning Machine Approach <i>Valon Nushi, DDS*; Ana M. Rodrigues, DMD; Diana Augusto, MSc; Rui Santos; Arlindo Oliveira, PhD; Alexandre Francisco, PhD; Francisco Salvado, PhD; Hrvoje Brkić, PhD; Cristiana Palmela Pereira, MSc; PhD</i>
4:15 PM – 4:30 PM	H31	The Age Assessment Procedure and Results of the Age Assessment: Where Is the Dental Age Assessment? <i>Cristiana Palmela Pereira, MSc; PhD*</i>
4:30 PM – 4:45 PM	H32	The Performance of Different Dental Age Estimation Methods on Saudi Children <i>Sakher AlQahtani, PhD*</i>
4:45 PM – 5:00 PM	H33	A Comparison of Third Molar Development Between Hispanic Populations in Two Different Geographical Locations in the United States <i>Jayakumar Jayaraman, BDS, MDS, MS, PhD*</i>
5:00 PM – 5:15 PM	H34	WITHDRAWN

ODONTOLOGY

Friday

Last and Never Least. . .

Moderator: Mary Speicher, DMD

- | | | |
|---------------------|------------|---|
| 8:45 AM – 9:00 AM | H35 | A 3D CBCT Method for Adult Age Estimation Based on Pulp Chamber Narrowing of Central Incisors
<i>Ilenia Bianchi, DMD*; Giulia Vitale, MD, DDS; Ugo Santosuosso, MSc; Lorella Bonaccorsi, PhD; Francesco Pradella, MD, DDS; Martina Focardi, MD; Vilma Pinchi, PhD</i> |
| 9:00 AM – 9:15 AM | H36 | A Dental Age Comparison of North Indian Children and Adolescents
<i>Deeksha Sankhyan*</i> |
| 9:15 AM – 9:30 AM | H37 | A Dental Assessment of Unaccompanied Refugees: A Mediterranean Perspective
<i>Mariagrazia Marisei, MD*; Pierpaolo Di Lorenzo, MD; Anita Sammarco, MD; Gaetano Di Donna, MD; Claudia Casella, JD; Fabio Policino; Emanuele Capasso, MD; Massimo Niola, PhD</i> |
| 9:30 AM – 10:00 AM | H38 | The Application of ABFO Standards and Guidelines in Diagnosing Human Bite Injuries
<i>Richard H. Fixott, DDS*</i> |
| 10:00 AM – 10:15 AM | H39 | When the Biter Leaves a Tooth Behind
<i>Daniel T. Hines*; Howard Harcke, MD</i> |

PATHOLOGY/BIOLOGY

Wednesday

Poster Session

11:30 AM – 1:00 PM	I1	Fatal Pesticide Ingestion Involving Boric Acid: A Case Report and Review of the Literature <i>Ashley Lukefahr, MD*</i>
11:30 AM – 1:00 PM	I2	WITHDRAWN
11:30 AM – 1:00 PM	I3	A Sudden Unexpected Death From a Rupture of the Pulmonary Artery in Patients With Systemic Autoimmune Diseases <i>Sharon Duzioni, MD*; Donna Gherardi, MD; Paolo Nozza, MD; Francesco Ventura, MD, PhD</i>
11:30 AM – 1:00 PM	I4	An 11-Year Review of Fall Deaths Due to Head Trauma Reported in Shelby County, TN <i>Madison Benton, BS*; Erica Curry, MD</i>
11:30 AM – 1:00 PM	I5	Cause and Manner of Death in New Mexico's Unhoused Population, 2014–2018 <i>Elyssa Glassheim, MD*; Lauren Dvorscak, MD; Sarah Lathrop, DVM, PhD; Garon Bodor, MS; Neil Greene, PhD</i>
11:30 AM – 1:00 PM	I6	Under Pandemic Pressure: A Four-Year Review of Suicidal Deaths in Shelby County, Tennessee, With Emphasis on the Effect of COVID-19 <i>Jacob Williams*; Scott Collier, DM; Danielle Harrell, DO</i>
11:30 AM – 1:00 PM	I7	A Case of Death Resulting From an Unrecognized Wilms Tumor in a 4-Year-Old Child <i>Isabella Caristo, MD*; Rosario Barranco, MD, PhD; Paolo Nozza, MD; Francesco Ventura, MD, PhD</i>
11:30 AM – 1:00 PM	I8	Considerations of Decedent General Health Parameters During Determination of Cause of Death in Persons Abusing Substances <i>Clare Hartman*; Chandler M. Grant, MS; Michael W. Johnson, MD, PhD</i>
11:30 AM – 1:00 PM	I9	Fat Embolism Syndrome in a Patient With Osteogenesis Imperfecta: A Textbook Case <i>Francesco Carravetta, DM*; Marcello Benevento, MD; Cristina Caterino, DM; Simona Nicoli, DM; Antonio Straface, MD; Laura Ambrosi; Biagio Solarino</i>
11:30 AM – 1:00 PM	I10	Ligature Strangulation Utilizing Cable Ties: An Unusual Means of Suicide in Italy <i>Roberta Mercuri, MD*; Valentina Calamano, MD; Federica Gamba, MD; Francesco Ventura, MD, PhD; Camilla Tettamanti, MD, PhD</i>
11:30 AM – 1:00 PM	I11	Chasing Euphoria: When Butane Inhalation Leads to Death <i>Naomi Iaconi, MD*; Julia Lazzari, MD; Carla Occhipinti, MD; Ilaria Marcacci, MD; Aniello Maiese, PhD; Fabio Stefanelli, PhD</i>
11:30 AM – 1:00 PM	I12	Acute or Chronic Myocarditis? Or Is It Budd-Chiari Syndrome? A Peculiar Case of Multi-Organ Failure in a Subject With SARS-CoV2 Infection <i>Eleonora Mezzetti, MD*; Matteo Leoni, MD; Giulia Berneschi, MD; Arianna Baronti, MD; Naomi Iaconi, MD*; Marco Di Paolo, MD</i>
11:30 AM – 1:00 PM	I13	Anosmia and COVID-19: The Search for the Virus in the Brain Through Immunohistochemical Investigations With the Anti-SARS-CoV-2 Antibody <i>De Simone Stefania, MD*; Maria Antonella Bosco, MD; Giacani Elena, MD; Gurgoglione Giovanni, MD; Isabella Di Marzo, MD; Raffaele La Russa, MD, PhD*; Luigi Cipolloni, MD*</i>

PATHOLOGY/BIOLOGY

- 11:30 AM – 1:00 PM **I14** **Oxidative Stress Markers in the Human Brain and Placenta May Reveal the Timing of Hypoxic-Ischemic Injury: Evidence From an Immunohistochemical Study**
*Benedetta Baldari, MD**; *Margherita Neri, MD PhD**; *Giacani Elena, MD*;
*De Simone Stefania, MD**; *Rinaldi Giuseppe, MD*; *Vittorio Simona, MS**; *Luigi Cipolloni, MD**
- 11:30 AM – 1:00 PM **I15** **Starvation-induced Hepatocyte Changes: Light and Electron Microscopy Findings in Two Pediatric Homicide Cases**
*Maria Elisa Smith, MD**; *Zabiullah Ali, MD*
- 11:30 AM – 1:00 PM **I16** **Macrophage Activation Syndrome Following Administration of the ChAdOx1 nCoV-19 Vaccine: A Case Study**
*Corinne La Spina**; *Giuseppe Davide Albano*; *Giuliana Malandrino, MD*; *Giovanni Cannella*;
Dario Scaglione, MD; *Emiliano Maresi*; *Stefania Zerbo*
- 11:30 AM – 1:00 PM **I17** **A Delayed Traumatic Intracranial Hemorrhage With Antithrombotic Medication: A Report of an Autopsy Case and Verification in an Animal Model**
*Kazuhiko Kibayashi, MD**
- 11:30 AM – 1:00 PM **I18** **Delayed Traumatic Rupture of the Spleen in a Patient with Mantle Cell Non-Hodgkin Lymphoma: Histopathological and Immunohistochemistry Aspects**
Giuseppe Davide Albano; *Vanessa Milazzo, MD*; *Mario Spano, MD**; *Maria Puntarello*;
Emiliano Maresi; *Stefania Zerbo*; *Antonina Argo*
- 11:30 AM – 1:00 PM **I19** **Combined Mechanical Asphyxia by Strangulation and Immobilization of the Chest in a Case of Matricide**
*Francesca Consalvo, MD**; *Matteo De Simone**; *Martina Padovano, MD*; *Matteo Scopetti, MD*;
Pasquale Ardovino, MD; *Alessandro Santurro, MD, PhD**
- 11:30 AM – 1:00 PM **I20** **Unknown Heart Disease and Sudden Cardiac Death: The Role of Postmortem Investigations**
*Matteo Antonio A. Sacco, MD**; *Margherita Sgroi, MD*; *Luca Calanna, MD*;
Maria Cristina Verrina, MD; *Giulio Pulpito, MD**; *Alessandro Pasquale Tarallo, MD**;
Wandamaria Mazzuca; *Pietrantonio Ricci, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **I21** **Sudden Cardiac Death in a Man With a Functioning Implantable Cardioverter-Defibrillator**
*Federica Ministeri, MD**; *Federico Privitera, MD*; *Grazia Giulia Pantè*; *Cristoforo Pomara, MD*
- 11:30 AM – 1:00 PM **I22** **Unraveling Unusual Mediastinal Anatomy Alterations Through Postmortem CT and Multiparametric 3-D Reconstructions: A Case Series of Major Trauma**
*Mauro Midiri**; *Giuseppe Davide Albano*; *Corinne La Spina*; *Maria Puntarello*;
Valeria Giglio, MD; *Erika Serena Sorrentino*; *Giuseppe Io Re*; *Antonina Argo*
- 11:30 AM – 1:00 PM **I23** **The Role of Optical Coherence Tomography in Sudden Cardiac Death: Insights and Future Perspectives in Forensic Sciences Through a Case Series of Spontaneous Coronary Artery Dissection**
*Giovanni Gurgoglione, MD**; *Maria Antonella Bosco, MD**; *Giuseppe Rinaldi, MD**;
Stefania De Simone, MD; *Elena Giacani, MD*; *Luigi Cipolloni, MD**; *Francesco Prari, MD, PhD**
- 11:30 AM – 1:00 PM **I24** **The Role of Radiological Investigations and the Postmortem Laboratory in an Enigmatic Suicide Case: Between Doubts and Certainties**
*Isabella Aquila, PhD, MD**; *Matteo Antonio A. Sacco, MD**; *Alessandro Schettini*;
Valerio Riccardo Aquila; *Maria Cristina Verrina, MD*; *Luca Calanna, MD**;
Felice Francesco Carabellese, MD

PATHOLOGY/BIOLOGY

Thursday

Poster Session

- 11:30 AM – 1:00 PM **I25** **A Case of Dismemberment in Italy: A Multidisciplinary Approach to Put the Pieces Together**
*Luca Diani, MD**; *Michele Carpinteri, MD*; *Laura Camilla Gasparini, MD*; *Giada Rovito, MD*;
Irene Pradelle, MD; *Enrica Callegari, LM*; *Rosa M. Gaudio, MD, PhD*;
Giovanni Cecchetto, MD, PhD; *Margherita Neri, MD PhD*; *Omar Bonato, MD*
- 11:30 AM – 1:00 PM **I26** **A Rare Case of Homicide by Air Rifle**
*Joshua Smith, PhD**; *Tiffany Hollenbeck, DO*
- 11:30 AM – 1:00 PM **I27** **The Cerulean Man: A Case of Argyria**
*Alfonzo Halfin**; *Todd M. Luckasevic, DO*; *Karl E. Williams, MD, NPH*
- 11:30 AM – 1:00 PM **I28** **Analysis of a Case of Neonatal Precipitation: Feticide or Infanticide?**
*Francesca Consalvo, MD**; *Matteo De Simone**; *Pasquale Ardivino, MD*;
Martina Padovano, MD; *Matteo Scopetti, MD*; *Alessandro Santurro, MD, PhD**
- 11:30 AM – 1:00 PM **I29** **Death Due to Aggression by Maremman Dogs: The Role of Forensic Sciences in the Reconstruction of the Case**
*Matteo Antonio A. Sacco, MD**; *Francesco Maria Galassi*; *Elena Varotto, PhD*;
Laura Landini, MA; *Maria Cristina Verrina, MD**; *Luca Calanna, MD*; *Wandamaria Mazzuca**;
*Roberto Raffaele**; *Pietrantonio Ricci, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **I30** **A Case of Fatal Hemorrhage: Natural or Violent Death? A Deceptive Crime Scene**
*Gennaro Baldino, MD**; *Cristina Mondello, MD*; *Giorgia Burrascano, MD**;
Domenicantonio Iannello, MD; *Alessio Asmundo, MD*; *Elvira Ventura Spagnolo, MD**
- 11:30 AM – 1:00 PM **I31** **Transorbital Orbitocranial Penetrating Injuries (TOPI): A Report of Two Cases**
Tancredi Dino Mario, MD; *Bibbò Roberta, MD**; *Benedetta Baldari, MD*;
*Maria Antonella Bosco, MD**; *Carpano Francesco, MD*; *Moro Diego, MD*; *Luigi Cipolloni, MD**
- 11:30 AM – 1:00 PM **I32** **Complex Suicide by Gunshot and Hanging**
*Eugenio Jacopo Piero Gallotti, MD**; *Dario Galatone*; *Chiara Franzetti, MD*; *Mattia Arturi, MS*;
Luca Tajana, MD; *Matteo Moretti, MD*; *Gulnaz T. Javan, PhD*; *Silvia D. Visonà, MD, PhD*;
Luca Morini, PhD
- 11:30 AM – 1:00 PM **I33** **Black Esophagus and Diabetic Ketoacidosis: A Report of an Autopsy Case**
*Nicolo' Vernazza, MD**; *Cristiano Micera, MD*; *Francesca Buffelli, MD*;
Francesco Ventura, MD, PhD; *Camilla Tettamanti, MD, PhD*
- 11:30 AM – 1:00 PM **I34** **A Blunt Force Injury to the Chest Caused by Firework Misuse: A Case Report**
*Roa Alqabbani**; *Melissa A. Brassell, MD*
- 11:30 AM – 1:00 PM **I35** **Frail Elder Abuse in Long-Term Care Facilities: A Suspected Case of Atypical Asphyxia**
*Roberta Mercuri, MD**; *Filippo Spigno, MD*; *Sara Lo Pinto, MD*; *Francesco Ventura, MD, PhD*
- 11:30 AM – 1:00 PM **I36** **Sudden Death Secondary to Colloid Cyst of the Third Ventricle: A Case Review**
*Erin Flaherty**; *Christine James, DO*; *Amanda O. Fisher-Hubbard, MD*; *Allison L. Deemter, MA*

PATHOLOGY/BIOLOGY

- 11:30 AM – 1:00 PM **I37** **Marjolin's Ulcers in the Forensic Setting: When Cancer Becomes a Homicide**
*Kamilah Fernandez, MD**; *Stephanie A. Dean, MD*
- 11:30 AM – 1:00 PM **I38** **Oxidative Stress in Sepsis: A Focus on Cardiac Pathology**
*Giuseppe Bertozzi, MD**; *Raffaele La Russa, MD, PhD**; *Domenico Martinelli, MD, PhD*;
Santina Cantatore, MLT; *Luigi Cipolloni, MD**
- 11:30 AM – 1:00 PM **I39** **Blunt Force Trauma and Aspiration of Gastric Contents: What Is the Cause of Death? An Unusual Case**
*Luca Tomassini**; *Manta Anna Maria, MD**; *Piergiorgio Fedeli*; *Cristiana Gambelungho, PhD*;
Massimo Lancia, MD
- 11:30 AM – 1:00 PM **I40** **Dealing With a Massive Number of Victims Due to an Accidental Fire**
*Amir Hamuod**
- 11:30 AM – 1:00 PM **I41** **Bee-Ware of MDPHP: A Case of Intoxication by Synthetic Cathinones Resulting in Hundreds of Bee Stings**
Jacopo Chirillo, DM; *Pietro Clemente C. Salmoirago, MD**; *Claudia Carelli*;
Mirella Sabatino, MD; *Valeria Prandini, MD*; *Greta Seveso, DM*; *Simone Turpini, MD*;
Carlo Previderè; *Luca Tajana, MD*; *Luca Morini, PhD*
- 11:30 AM – 1:00 PM **I42** **When a Nursing Home Turns Into a Killing Home—Forensic Aspects of Serial Murder in Health Care: A Case of a Serial Killer Nurse**
*Federica Spina, MD**; *Giacomo Visi, MD**; *Eleonora Mezzetti, MD*; *Andrea Costantino, MD*;
Antonello Di Paolo, MD; *Silvio Chericoni, PhD*; *Fabio Stefanelli, PhD*
- 11:30 AM – 1:00 PM **I43** **Respiratory Illness Surveillance in Suspected Drug-Related Deaths**
*Abigail J. Grande, BS, MPH**; *Asmaa Obead, MBChB, MPH*; *Gemma Harkin, BS, MPH*;
Joyce L. deJong, DO; *Amanda O. Fisher-Hubbard, MD*; *Christine M. Pink, PhD*
- 11:30 AM – 1:00 PM **I44** **Comparing Manner of Death in Georgia Prison and Jail Populations**
*Alexander Yue, BS, BA**; *Rachel Geller, MD*; *Sandra P. Reynolds, MD*; *Ashley Garrish*
- 11:30 AM – 1:00 PM **I45** **The Effect of Preservation, Time, and Temperature on DNA Recovery of Blow Fly Specimens (Diptera: Calliphoridae)**
*Kathryn Melancon**; *Sydney N. Wedel, BSc*; *Jonathan J. Parrott, PhD*
- 11:30 AM – 1:00 PM **I46** **The Succession of Invertebrate Communities Involved in Swine Decomposition in Freshwater Environments in Italy**
*Andrea Benassi, PhD, MS**; *Gloria Raise*; *Nicholas Lorusso*; *Denise Gemmellaro, PhD**
- 11:30 AM – 1:00 PM **I47** **The Persistence of DNA in Water From an Actively Decomposing Cadaver for Human Identification**
*Anna Mae Adkins, BS**; *Rachel Houston, PhD*; *Sheree R. Hughes, BSc, PhD*;
Haeli Kennedy, BS; *Hannah K. Cervenka, BS*

PATHOLOGY/BIOLOGY

Thursday—Session I

2024 Jay Dix Lecture Series

Moderator: Michael Graham, MD

9:00 AM – 9:10 AM	I107	2024 Jay Dix Day Memorial Lecture Series <i>Michael A. Graham, MD*</i> ; <i>Joseph A. Prahlow, MD*</i> ; <i>Andrew Baker, MD*</i> ; <i>James L. Caruso, MD*</i> ; <i>Susan F. Ely, MD*</i> ; <i>Katherine Maloney, MD*</i> ; <i>James R. Gill, MD*</i>
9:10 AM – 9:50 AM	I107	Postmortem Changes <i>Joseph A. Prahlow, MD*</i>
9:50 AM – 10:15 AM		BREAK
10:15 AM – 11:05 AM	I107	Firearm Injuries <i>Andrew Baker, MD*</i>
11:05 AM – 12:00 PM	I107	Deaths Involving Watery Environments <i>James L. Caruso, MD*</i>
12:00 PM – 2:00 PM		BREAK
2:00 PM – 2:50 PM	I107	Asphyxia <i>Susan F. Ely, MD*</i>
2:50 PM – 3:05 PM		BREAK
3:05 PM – 3:55 PM	I107	Not Just Small Adults: Essentials of Pediatric Pathology <i>Katherine Maloney, MD*</i>
3:55 PM – 5:00 PM	I107	Sharp Force Injuries <i>James R. Gill, MD*</i>

Thursday—Session II

COVID-19 and Other Causes of Death

Moderator: Gregory Schmunk, MD

Co-Moderator: Amir Hamoud, MD

8:30 AM – 8:45 AM	I48	Death From Angioedema With Anaphylaxis and COVID-19 <i>Lakshmanan Sathyavagiswaran, MD*</i> ; <i>Richard Ou, MD</i> ; <i>J Daniel Augustine, MD</i>
8:45 AM – 9:00 AM	I49	Deaths Due to COVID-19 Infection in Children and Young People Aged 0–19 at the Harris County Institute of Forensic Sciences in Houston, Texas <i>Jennifer L. Ross, MD*</i>
9:00 AM – 9:15 AM	I50	Drowning Associated With Carbon Monoxide Toxicity in the Setting of Recreational Boating <i>Reba Sue Cherian, DO*</i> ; <i>Leticia Schuman, MD</i> ; <i>Brad Hall, PhD</i> ; <i>J. Keith Pinckard, MD, PhD</i>
9:15 AM – 9:30 AM	I51	A Cornucopia of Death by Gas: Fatalities Involving Organic and Inorganic Gases <i>Hannah C. Jarvis, MBBS, MRCS*</i> ; <i>Gregory Dickinson, MD, MS</i>

PATHOLOGY/BIOLOGY

9:30 AM – 9:45 AM	I52	The Postmortem Utility of Neuron-Specific Enolase and S100B for Differentiating Traumatic Brain Injury From Other Causes of Death <i>Siddhartha Das, MBBS, MD*</i>
9:45 AM – 10:00 AM	I53	The Clarksburg Insulin Murders <i>Paul S. Uribe, MD*; Katherine A. Grosso, MA, BS*; Colin F. Davis*; Keith G. Vereb*; Jarod Douglas*</i>
10:00 AM – 10:15 AM	I54	A Complex Suicide With Over 250 Sharp Force Injuries and Falling From Height <i>Maya Neumann*; Wolfgang Grellner, MD</i>
10:15 AM – 10:30 AM		BREAK

Pediatric Deaths

Moderator: Jolee Suddock, DO

Co-Moderator: Michael Harrell, MD

10:30 AM – 10:45 AM	I55	Medicolegal Pediatric Natural Deaths: Causes of Death and Demographics <i>John W. Powell, MD*; Hannah C. Jarvis, MBBS, MRCS; Melissa M. Blessing, DO</i>
10:45 AM – 11:00 AM	I56	An Unusual Form of Sudden Infant Death in the Arctic <i>Cristin Marie Rolf, MD*</i>
11:00 AM – 11:15 AM	I57	Child Abuse Diagnostic Work-Up: Let's Put on Our Thinking Caps <i>Anita Sammarco, MD*; Pierpaolo Di Lorenzo, MD; Maria Pieri; Mariagrazia Marisei, MD; Gaetano Di Donna, MD; Fabio Policino; Emanuele Capasso, MD; Massimo Niola, PhD</i>
11:15 AM – 11:30 AM	I58	Suicides in Childhood and Adolescence: A Ten-Year Study From Jefferson County, Alabama <i>Nicola Pigaiani, MD*; Daniel W. Dye, MD; Daniel S. Atherton, MD; Francesco Ausania, MD, PhD; Federica Bortolotti, MD, PhD; Gregory G. Davis, MD, MSPH; Brandi C. McCleskey, MD</i>
11:30 AM – 11:45 AM	I59	Changes to the Certification of Sudden Unexplained Deaths in Infants From 2012 to 2023 <i>Amanda Lynne Marinello, BS*; Brandi C. McCleskey, MD</i>
11:45 AM – 12:00 PM	I60	A Histological Examination of the Uterus to Confirm Early Pregnancy in Female Homicide Victims <i>Marianne Hamel, MD, PhD*; Andrew F. Falzon, MD, MCS</i>
12:00 PM – 1:00 PM		BREAK

Case Reports

Moderator: Owen Middleton, MD

Co-Moderator: Quinn Demik, MD

1:00 PM – 1:15 PM	I61	Multiple Shots of Different Firearms in a Charred Corpse: A Case Report <i>Mattia Arturi, MS*; Martina Demasi, MD; Nicolas Martinelli; Pierangela Grignani; Francesca Freni, MS; Yao Chen, MD</i>
1:15 PM – 1:30 PM	I62	A Macro and Micro Time-Dependent Washer Woman Wrinkling and Reversibility Trivialized in a Bathtub Drowning: A Case Presentation <i>Pete Speth, MD*</i>

PATHOLOGY/BIOLOGY

- 1:30 PM – 1:45 PM **I63** **Complete Laryngotracheal Separation Without Decapitation in a Case of Hanging: An Uncommon Phenomenon**
*Nilesh Keshav Tumram, MBBS, MD**
- 1:45 PM – 2:00 PM **I64** **One House, Two Bodies: A Case Series and Considerations for Investigating Companion “Double Deaths,” Including Challenges in the “Philemon and Baucis” Syndrome**
Deland Weyrauch, MD; Christopher Borck, MD*
- 2:00 PM – 2:15 PM **I65** **A Diamond in the Rough—Myocardial Infarction as a Complication of “Near Hanging” in an Adolescent: An Exceptionally Rare-Find Case Report**
Barbara Iga Smyk, DM; José Jerónimo Fonte-Santa da Silva*
- 2:15 PM – 2:30 PM **I66** **A Macro and Micro Time-Dependent Washer Woman Wrinkling and Reversibility in a Bathtub Drowning Case: 20th-Century German Research Proves Innocence**
*Pete Speth, MD**
- 2:30 PM – 2:45 PM **I67** **Deaths Involving Forklifts in Cook County, Illinois: A Retrospective Review**
Megan Kinn, DO, MS; Lorenzo Gitto, MD; David M. Waters, MD*
- 2:45 PM – 3:00 PM **I68** **Myocardial Scarring and Interstitial Fibrosis: An Unknowable, Unpredictable, and Unavoidable Tragedy**
Gerald Feigin, MD; Priya Banerjee, MD; Gil Sapir, JD, MSc*
- 3:00 PM – 3:15 PM **I69** **Death by Lung Hypoplasia as a Result of a Bilateral Congenital Diaphragmatic Hernia**
Maya Neumann; Wolfgang Grellner, MD*
- 3:15 PM – 3:30 PM **BREAK**

Interdisciplinary Approach

Moderator: Gregory Schmunk, MD

Co-Moderator: Lorenzo Gitto, MD

- 3:30 PM – 3:45 PM **I70** **Utilizing an In-House Forensic Epidemiologist in the Denver Office of the Medical Examiner**
Ami L. Jackson, DO; Meredith A. Frank, MD; Ethan Jamison, MPH; James L. Caruso, MD; Ian J. Puffenberger, MD; Sterling J. McLaren, MD*
- 3:45 PM – 4:00 PM **I71** **A Multidisciplinary Approach to the Canonical Recognition Activities Conducted on the Bone Remains Attributed to St. Hippolytus and the Martyrs Crescentius and Irenaeus (4th Century AD)**
Francesca Consalvo, MD; Alessandro Santurro, MD, PhD*; Carmen Sementa, MD; Chantal Milani, DMD, PhD; Francesca Motta; Francesco La Sala, MD; Sergio Brogna, MD*
- 4:00 PM – 4:15 PM **I72** **A Death in the Setting of Diabetic Ketoacidosis and Concurrent SGLT2 Inhibitor Use**
Christopher Sullivan; Angelina Phillips, MD*
- 4:15 PM – 4:30 PM **I73** **Death Caused by Wild Animals: *Ex Africa Semper Aliquid Novi* (Out of Africa There Is Always Something New)**
*Gert Saayman, FCFPath**
- 4:30 PM – 4:45 PM **I74** **Investigating Equine-Related and Bovine-Related Human Fatalities in Oklahoma**
Kaylan Peterson, MS; Wayne D. Lord, PhD; Ross J. Miller, BA, MD; Mark R. McCoy, EdD; Timothy Dwyer, MSFS; Amber L. Fortney, MS; Sean Laverty*

PATHOLOGY/BIOLOGY

- 4:45 PM – 5:00 PM **I75** **The Perils of Body Size Assumption in Subadult Sibling Death Identifications**
*John B. Nase, DDS**
- 5:00 PM – 5:15 PM **I76** **The Prevalence of Ethanol and Drugs Detected in Road Traffic Deaths: A Ten-Year Survey From Jefferson County, Alabama**
*Nicola Pigaiani, MD**; *Brandi C. McCleskey, MD*; *Daniel S. Atherton, MD*; *Daniel W. Dye, MD*; *Giacomo Musile, PhD*; *Federica Bortolotti, MD, PhD*; *Gregory G. Davis, MD, MSPH*; *Karen S. Scott, PhD*
- 5:15 PM – 5:30 PM **I77** **The Graveyard Spiral and the Day the Music Died**
*Edmund R. Donoghue, MD**

Thursday—Session III

Multidisciplinary Session: Pathology/Biology and Toxicology

Moderator: Robert Johnson, PhD

Co-Moderator: Rhonda Mittenzwei, MD

- 1:00 PM – 1:15 PM **L52** **2C or Not Tusi? The Emergence of a New Drug Combination in Miami**
*Rocio Potoukian, BS**; *Diane Moore, PhD*; *Kenneth Hutchins, DM*
- 1:15 PM – 1:30 PM **L53** **The Frequency and Analysis of Kratom in Postmortem Cases**
*William M. Schroeder, II, MS**; *Donna M. Papsun, MS*; *Justin Brower*
- 1:30 PM – 1:45 PM **L54** **Postmortem Diagnosis of Ketoacidosis: The Importance of Beta-Hydroxybutyrate Quantification as Part of Routine Toxicological Screening at Autopsy**
*Jeroen Roosendaal, MSFS**; *Astrid Christiaens, MD*; *Kiki Van Langen, MD*; *Ingrid Bosman, PhD, MSFS*
- 1:45 PM – 2:00 PM **L55** **A Case Series of Suicides by Sodium Azide Ingestion: An Update**
*Ingrid Bosman, PhD, MSFS**; *Roelof Oosting, MD*; *Dick-Paul Kloos, MD*; *Bart Ruiter*; *Jeroen Roosendaal, MSFS*; *Kristof Maudens, MHA, BS*
- 2:00 PM – 2:15 PM **I78** **I Didn't Want to Kill Him! The Role of Cocaine in Pseudoasphyxia by Compression of the Carotid Sinus**
*Eleonora Mezzetti, MD**; *Matteo Leoni, MD*; *Andrea Costantino, MD*; *Carla Occhipinti, MD*; *Rebecca Pieretti, MD*; *Aniello Maiese, PhD*
- 2:15 PM – 2:30 PM **I79** **Not So Much the "Spice" of Life: Identifying a Source for a Series of MDMB-4en-PINACA Deaths**
*Michael Chaump, MD**; *Robert Johnson, PhD*; *Aria McCall, BS*; *Kei Osawa, MFS*; *Steven J. Hemberger, DO*; *Mark E. Shelly*; *Richard Fries*; *Dana Hopson, MD*
- 2:30 PM – 2:45 PM **I80** **Elevated Beta-Hydroxybutyrate Within a Pediatric Population and Its Associated Pathology: A Retrospective Case Series**
*Nasim Haghbandish, MDCM, PhD**; *Chris Milroy, MD, LLB*; *Jacqueline Parai, MD*; *Anthea Lafreniere, MD*
- 2:45 PM – 3:00 PM **I81** **Pediatric Fatalities Due to Methadone Toxicity in Cook County, Illinois: Considerations on the Manner of Death**
*Lorenzo Gitto, MD**; *Daniel S. Isenschmid, PhD*; *Ponni Arunkumar, MD*

PATHOLOGY/BIOLOGY

Friday

Poster Session

- | | | |
|--------------------|------------|---|
| 11:30 AM – 1:00 PM | 182 | Postmortem Interval Estimation Using MiRNAs: A Forensic Application
<i>Paurabhi Singh, MSc*</i> ; <i>Uma Shankar Singh, MD</i> ; <i>Sangeeta Kumari, MD</i> |
| 11:30 AM – 1:00 PM | 183 | Recombinase Polymerase Amplification (RPA) for the Identification of Canine and Chicken Blood Samples
<i>Julian L. Mendel*</i> ; <i>Hanna Mellul</i> ; <i>DeEtta Mills, PhD</i> |
| 11:30 AM – 1:00 PM | 184 | The Development of Real-Time and Digital PCR Kits for Simultaneous Quantification of Human and Bacterial DNA From Biological Evidence
<i>Ji-Woo Lee*</i> ; <i>Hye-Seon Cho</i> ; <i>Ha-Eun Cha</i> ; <i>A-Jeong Jeon</i> ; <i>Si-Keun Lim</i> |
| 11:30 AM – 1:00 PM | 185 | A Retrospective Review of Genetic Testing and Its Impact on Cause of Death
<i>Larissa Ybanez, BS, BA*</i> ; <i>Stacey Murthy, MD</i> |
| 11:30 AM – 1:00 PM | 186 | The Impact of Mouthwash on Microbiome Associated With Human Saliva and Its Implication in a Bacterial Signature-Based Body Fluid Identification Method
<i>Grace Cavanaugh, MS*</i> ; <i>Baneshwar Singh, PhD*</i> ; <i>James P. Brooks</i> ; <i>Sarah Seashols Williams, PhD</i> ; <i>Denise Wohlfahrt, PhD</i> |
| 11:30 AM – 1:00 PM | 187 | The Forensic Application of Monoclonal Anti-Human Glycophorin A (AntiGPA) Antibody in Samples From Decomposed Bodies to Establish Vitality of the Injuries: An Experimental Study
<i>Benedetta Baldari, MD*</i> ; <i>Elena Giacani, MD*</i> ; <i>Giovanni Gurgoglione, MD</i> ; <i>Jeannet Cappitelli, MD</i> ; <i>Giovanni Pollice, MD</i> ; <i>Francesca Carpano, MD</i> ; <i>Paola Frati, MD*</i> |
| 11:30 AM – 1:00 PM | 188 | A Metagenomic Approach in Forensic Science for Human Identification Among a North Indian Population
<i>Sangram Sandhu, MSc*</i> ; <i>Niraj Rai, PhD</i> ; <i>Pooran Chand, MDS</i> |
| 11:30 AM – 1:00 PM | 189 | Establishing an Extracorporeal Tissue Degradation Model to Investigate PMI Markers
<i>Stefan Pittner, PhD*</i> ; <i>Eileen Holzer, BS</i> ; <i>Fabio Monticelli, PhD</i> ; <i>Peter Steinbacher</i> ; <i>Jane Harris, PhD</i> |
| 11:30 AM – 1:00 PM | 190 | When Immunohistochemistry Acquitted the Defendant: A Particular Scuba-Diving Death
<i>Luca Sussetto, MD*</i> ; <i>Elisa Olivetta, MD</i> ; <i>Barbara Abenante, MD</i> ; <i>Giancarlo Di Vella, MD, PhD*</i> |
| 11:30 AM – 1:00 PM | 191 | The Value and Versatility of Histology in the Forensic Autopsy: Changing Cases From Suspicious to Natural Causes
<i>Joanne Hanna, BAS*</i> ; <i>Yeliena Baber, FRCPath, FRCPA</i> |
| 11:30 AM – 1:00 PM | 192 | Evaluating the Spatial Relationship Between Microhemorrhages and Axonal Injury
<i>Rhonda M. Mittenzwei, MD*</i> ; <i>Heather Maioli, MD</i> ; <i>Chiara Maffei, PhD</i> ; <i>Karinn R. Sytsma, BA</i> ; <i>Desiree Marshall, MD</i> ; <i>Caitlin S. Latimer, MD, PhD</i> ; <i>C. Dirk Keene, MD, PhD</i> ; <i>Christine Mac Donald, PhD</i> ; <i>Amber Nolan, MD, PhD</i> ; <i>Brian Edlow, MD</i> |
| 11:30 AM – 1:00 PM | 193 | The Role of Thiols in Putrefaction: An Analysis of Biochemical Interactions in Forensic Cases
<i>Isabella Aquila, PhD, MD*</i> ; <i>Claudia Catia De Pasquale</i> ; <i>Matteo Antonio A. Sacco, MD*</i> ; <i>Maria Manno, MD</i> ; <i>Saverio Gualtieri, MD</i> ; <i>Lucia Tarda, MD</i> ; <i>Luca Calanna, MD*</i> ; <i>Maria Cristina Verrina, MD*</i> ; <i>Wandamaria Mazzuca</i> ; <i>Pietrantonio Ricci, PhD, MD</i> |

PATHOLOGY/BIOLOGY

- 11:30 AM – 1:00 PM **I94** **Iatrogenic Injuries Due to Endoscopic Techniques: The Role of Medicolegal Analysis for Forensic Purposes**
*Matteo Antonio A. Sacco, MD**; *Maria Manno, MD*; *Angelica Zibetti, MD*; *Umberto Rosini, MD*; *Maria Cristina Verrina, MD**; *Lucia Tarda, MD*; *Antonio Pallante, MD*; *Luca Calanna, MD*; *Pietrantonio Ricci, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **I95** **Neonatal Traumatic Deaths: Differentiating Homicidal and Accidental Cases by a Multidisciplinary Approach**
*Aromatario Mariarosaria, MD PhD**; *Benedetta Baldari, MD*; *Carpano Francesco, MD**; *Moro Diego, MD**; *Luigi Cipolloni, MD**; *Fineschi Vittorio, MD, PhD**; *Tartaglione Tommaso, MD**
- 11:30 AM – 1:00 PM **I96** **Post-Traumatic Intracranial Pseudo-Aneurysms of Posterior Circulation: Always a Challenge in the Forensic Field**
*Gabriele Napoletano, MD**; *Fabio Del Duca, MD*; *Giacomo Visi, MD*; *Federica Spina, MD*; *Eleonora Mezzetti, MD*; *Alessandra De Matteis*; *Aniello Maiese, PhD**
- 11:30 AM – 1:00 PM **I97** **Analyzing the Past to Help Shape Our Children's Futures: A Ten-Year Review of Pediatric Deaths in Arapahoe County, Colorado**
*Emma Selner, DO**; *Casey Bitting, DO**
- 11:30 AM – 1:00 PM **I98** **Scuba Diving, Extreme Sports, and Undetected Cardiac Pathologies. Is There a Need for Further Clinical Examinations to Make These Activities Safer for Health?**
*Eleonora Mezzetti, MD**; *Federica Spina, MD**; *Ilaria Marcacci, MD*; *Rebecca Pieretti, MD*; *Matteo Leoni, MD*; *Marco Di Paolo, MD*
- 11:30 AM – 1:00 PM **I99** **Death by Frostbite: From Theory to Reality**
*Stefano Duma, MD**; *Federica Mele, MD*; *Mariagrazia Calvano, MD*; *Mirko Leonardelli, MD*; *Enrica Macorano, MD*; *Giovanni De Gabriele, MD*; *Alessandro Cristalli, MD*; *Francesco Introna*
- 11:30 AM – 1:00 PM **I100** **Too Hot to Handle: A Review of Carbon Monoxide Levels in Fire Fatalities**
*Olivia Ostermann, BS**; *Stacey Murthy, MD*
- 11:30 AM – 1:00 PM **I101** **Smoke and Mirrors: A Bullet-less Intraoral Gunshot Wound**
*Nicole Burgin, BS**; *Natasha Grandhi, MD*; *Sandra P. Reynolds, MD*
- 11:30 AM – 1:00 PM **I102** **The Management of Deaths in Railway Stations: Investigation Methodologies and Safety Prospects for Public Health**
*Matteo Antonio A. Sacco, MD**; *Vincenzo Maria Ritorto, MD*; *Fabrizio Cordasco, MD*; *Carmen Scalise, PhD, MD*; *Maria Cristina Verrina, MD**; *Roberto Raffaele**; *Luca Calanna, MD**; *Pietrantonio Ricci, PhD, MD*; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **I103** **The Analysis of Gunshot Wounds in Gun Tests on Biological Matrices: An Experimental Study on Pig Heads**
*Isabella Aquila, PhD, MD**; *Massimo Musardo*; *Massimo Lupo*; *Roberto Raffaele**; *Matteo Antonio A. Sacco, MD**; *Luca Calanna, MD**; *Maria Cristina Verrina, MD**; *Saverio Gualtieri, MD*; *Lucia Tarda, MD*; *Antonio Pallante, MD*; *Wandamaria Mazzuca**; *Mariachiara Miliati*
- 11:30 AM – 1:00 PM **I104** **Georgia: Home to the Carpet Capital of the World**
*Alexandra Medeiros, MD**; *Stephanie Marino, BS*; *Rachel Geller, MD*; *Geoffrey Smith, MB, ChB*
- 11:30 AM – 1:00 PM **I105** **Penile Torsion as a Method of Identification**
*Fernanda Da Silva Iameira, MD**; *Nicole M. Masian, MD*; *Wendy M. Gunther, MD*

PATHOLOGY/BIOLOGY

- 11:30 AM – 1:00 PM **I106** **The Role of the Forensic Laboratory in the Investigation of Postmortem Cardiac Markers for the Diagnosis of the Cause of Death: A Comparison of Forensic Utilities**
*Matteo Antonio A. Sacco, MD**; *Vincenzo Maria Ritorto, MD*; *Melanie Rouse, DPA*;
Jan Gorniak, DO; *Maria Cristina Verrina, MD**; *Luca Calanna, MD*; *Margherita Sgroi, MD*;
Serena Coda; *Wandamaria Mazzuca**; *Santo Gratteri, PhD, MD*; *Isabella Aquila, PhD, MD**

Forensic Entomology

Moderator: Lavinia Iancu, PhD

Co-Moderator: Nicolette Ras, BS

- 8:30 AM – 8:45 AM **I108** **Necrophagous Insect Species Succession on Decomposed Pig Carcasses During North Dakota's Summer Months**
*Lavinia Iancu, PhD**; *Rebecca Simmons, PhD*; *Tiberiu Sahlean, PhD*; *Malia R. Wellens, BS*;
Ranjana Mosby, BS
- 8:45 AM – 9:00 AM **I109** **The Effects of Common Insecticides on Blow Fly (Diptera: Calliphoridae) Oviposition in the Field**
*Teomie S. Rivera-Miranda, BSc, MSc**; *Krystal R. Hans, PhD*
- 9:00 AM – 9:15 AM **I110** **It Boils Down to This: An Initial Evaluation, Using the Forensically Important Blow Fly *Cochliomyia Macellaria*, on the Usefulness of Gene Expression Following the Common Method of Boiling Larvae**
*Joshua Smith, PhD**
- 9:15 AM – 9:30 AM **I111** **Baits, Bodies, and Bugs: An Analysis of Forensic Entomology in Arizona**
*Lauren Weidner, PhD**; *Andrew Meeds*
- 9:30 AM – 9:45 AM **I112** **Feline Forensics: Revealing the Unique Decomposition and Forensically Relevant Blow Flies (Diptera: Calliphoridae) Associated With Cats**
*Kelly Bagsby, MS, BS**; *Krystal R. Hans, PhD*
- 9:45 AM – 10:00 AM **I113** **How Can Forensic Entomology Contribute to Solving Rhinoceros Poaching in South Africa?**
*Ian R. Dadour, MSc, PhD**; *Melanie Pienaar, BSc*; *Christopher W. Weldon, PhD*
- 10:00 AM – 10:15 AM **I114** **Winter Decomposition in North Dakota and Vertebrate Scavengers**
*Lavinia Iancu, PhD**; *Nicolette Ras, BS*
- 10:15 AM – 10:30 AM **BREAK**

Forensic Entomology and Omics

Moderator: Ian Dadour, PhD

Co-Moderator: Kristi Bugajski, PhD

- 10:30 AM – 10:45 AM **I115** **Assessing the Impacts of Prescription Medications and Metabolites on Larval Blow Fly Development**
*Hayden S. McKee-Zech, MSc**; *Charity G. Owings, PhD*; *Dawnie W. Steadman, PhD*
- 10:45 AM – 11:00 AM **I116** **A Decade Into Developing a Microbiome Tool for Predicting the Postmortem Interval: Where Are We Now and Where Are We Going?**
*Jessica Lynne Metcalf, PhD**; *Zachary Burcham, PhD*; *Rob Knight, PhD*; *David O. Carter, PhD*

PATHOLOGY/BIOLOGY

- 11:00 AM – 11:15 AM **I117** **Understanding Seasonal Differences in Postmortem Microbiome Development for Forensic Practice**
*Anthony Grigsby**; Kelly Waters; M. Eric Benbow, BS, PhD; Jennifer L. Pechal, PhD; Bethany Mikles, BSc, MS
- 11:15 AM – 11:30 AM **I118** **Microbiome Across the Pond: Decomposition in North Dakota Extreme Winter Temperatures Versus United Kingdom Summer Temperatures and Their Effect on the Microbiome for PMI Estimation**
*Noemi Procopio, PhD, MSc**; Lavinia Iancu, PhD*; Andrea Bonicelli, PhD, MA
- 11:30 AM – 11:45 AM **I119** **Developing a Multi-Omics Bone Biomolecular Signature by Integrating Metabolomics, Lipidomics, and Proteomics to Estimate Postmortem Interval**
*Andrea Bonicelli, PhD, MA**; Noemi Procopio, PhD, MSc
- 11:45 AM – 12:00 PM **I120** **A Metabolomics Investigation of Postmortem Human Pericardial Fluid**
*Alberto Chighine, MD**; Matteo Stocchero; Giulio Ferino, PhD; Fabio De-Giorgio, MD; Matteo Nioi, MD; Celeste Conte, MD; Ernesto d'Aloja, MD, PhD; Emanuela Locci, PhD
- 12:00 PM – 1:00 PM **BREAK**

Forensic Omics and Pathology/Biology Standards

Moderator: Noemi Procopio, PhD

Co-Moderator: Krystal Hans, PhD

- 1:00 PM – 1:15 PM **I121** **Infant Postmortem Microbiome Biomarkers: An Initial Survey**
*Jennifer L. Pechal, PhD**; Bethany Mikles, BSc, MS; Heather Jordan, PhD; M. Eric Benbow, BS, PhD; Carl Schmidt, MD, MPH
- 1:15 PM – 1:30 PM **I122** **A Longitudinal Study for PMI Estimation Via GC/MS Metabolomics Applied to Porcine Muscle Tissue**
*Andrea Bonicelli, PhD, MA**; Halima Al-Balushi, BSc; Zoha Khan-Perveen, BSc; Alberto Chighine, MD; Irene van Zwieten, BSc; Peter Cross, MSc; Noemi Procopio, PhD, MSc
- 1:30 PM – 1:45 PM **I123** **The Mass Grave Project: The Impact of Freezing and Burial on Personal Identification Through Human DNA Analysis**
*Sarah Gino, MD**; Giulia Sguazzi, MA, BA; Moya McCarthy-Allen, BSc, MSc; Nicole Colombo; Daniel Wescott, PhD; Timothy P. Gocha, PhD; Noemi Procopio, PhD, MSc; Hayley L. Mickleburgh, PhD
- 1:45 PM – 2:00 PM **I124** **The Recovery of Corpses From Aquatic Environments: Procedural Standards to Maximize Evidence Recovery**
*Denise Gemmellaro, PhD**; Andrea Zaferes, BA*; Gloria Raise
- 2:00 PM – 2:15 PM **I125** **Developing an Introductory Forensic Biology Graduate Course: Preparing Future Forensic Biologists**
*Leah Nangeroni, BS**; Mirna Ghemrawi, PhD, MSFS; Lindsay Loughner Kotchey, MS; Justin Frye, MSFB
- 2:15 PM – 2:30 PM **I126** **Standards Development Activities in Medicolegal Death Investigation and Forensic Pathology**
*J. Keith Pinckard, MD, PhD**

PATHOLOGY/BIOLOGY

2:30 PM – 2:45 PM	I127	Systematized International Capacity Development for Forensic Pathology in Low-Resource Jurisdictions: A Proposed Model <i>Alfredo Eugene Braxton-Walker, FRCPath, MBBS*</i>
2:45 PM – 3:00 PM	I128	2023 State Legislative Encroachments Against Forensic Pathology Professionalism and Independence: Harbingers of Future Threats and Opportunity for Strategic Planning and Action <i>M.J. Menendez, JD*; Joyce L. deJong, DO</i>
3:00 PM – 3:15 PM	I129	The 2022 NFLIS Medical Examiner and Coroner (MEC) Survey Findings <i>Kelly Keyes, BS*; DeMia P. Pressley, MS; Katherine Bollinger, MS; Hope M. Smiley-McDonald, PhD; Megan R. Waggy, MA, BA; Devon S. Cribb, MS</i>
3:15 PM – 3:30 PM		BREAK

Pathology/Biology Standards and Imaging

Moderator: Caroline Rowe, PhD

Co-Moderator: Tuyet Tran, DO

3:30 PM – 3:45 PM	I130	Preserving the Silent Witnesses: Ensuring Long-Term Maintenance of Insect Evidence in Forensic Investigations <i>Ian R. Dadour, MSc, PhD*; Paola A. Magni, PhD; Martin J.R. Hall, PhD</i>
3:45 PM – 4:00 PM	I131	The Toxic Workplace in Forensics <i>Paul S. Uribe, MD*</i>
4:00 PM – 4:15 PM	I132	But What Does It Mean? A Rationale for a Standardized Means of Death Classification System <i>Sarah Anderson, DO*; Katarina M. Volkoff; Brandi C. McCleskey, MD</i>
4:15 PM – 4:30 PM	I133	Plastic Bag Suffocation: A Case Series and an Effective Protocol Proposal <i>Anna Maria Manta, MD*; Benedetta Baldari, MD*; Stefania De Simone, MD*; Pia Eugenia Ylenia Petrasso, MD*; Gianluca Piras, MD*; Luigi Cipolloni, MD*; Valentina Milone, MD</i>
4:30 PM – 4:45 PM	I134	A Case of Ductus Venosus Agenesis (DVA) in a Stillborn Baby: The Postmortem Computed Tomography (CT) Scan and Autopsy Findings <i>Martina Demasi, MD*; Chiara Franzetti, MD; Luisa Andrello, MD, PhD; Matteo Moretti, MD; Rosa Maria Martinez</i>
4:45 PM – 5:00 PM	I135	Minimally Invasive Postmortem Autopsies Using CT-Guided Biopsies in Suspected Cases of Pneumonia: A Feasibility Study <i>Yonatan Carl, MD*; Jamie Elifritz, MD; Micheal Harrell, MD; Kethery Haber, MHA, BS; Sarah Lathrop, DVM, PhD; Lauren Dvorscak, MD</i>
5:00 PM – 5:15 PM	I136	An Analysis of Autopsy-Radiology Discordance in Cases of Fatal Blunt Force Injury <i>Natalie L. Adolphi, PhD*; Yi-Li Grace Wong, MD; Jamie Elifritz, MD</i>

PSYCHIATRY & BEHAVIORAL SCIENCE

Thursday

Poster Session

11:30 AM – 1:00 PM	J1	WITHDRAWN
11:30 AM – 1:00 PM	J2	A Polygraph Examination of a Rape and Murder Suspect: A Case Study <i>Aabad Ayoub, MPhil*</i>
11:30 AM – 1:00 PM	J3	Internet Gaming Disorder: An Invisible Addiction With Real Damage <i>Adriana Scutto*, Pascale Basilicata; Valentina Battimiello*; Dario Bruzzese, PhD; Anita Sammarco, MD; Gaetano Di Donna, MD; Massimo Niola, PhD; Maria Pieri</i>
11:30 AM – 1:00 PM	J4	WITHDRAWN
11:30 AM – 1:00 PM	J5	WITHDRAWN
11:30 AM – 1:00 PM	J6	WITHDRAWN
11:30 AM – 1:00 PM	J7	WITHDRAWN
11:30 AM – 1:00 PM	J8	The Treatment Decision-Making Capacity (TDMC) in Children and Adolescents Undergoing Orthopedic Surgery: A Comparison With Their Parents <i>Gabriele Mandarelli*; Cristina Caterino, DM; Daniela Dibello; Michele Pellegrini; Marcello Benevento, MD; Davide Ferorelli; Giulia Petroni; Angelo Di Giovanni, MD; Felice Francesco Carabellese, MD; Roberto Catanesi; Biagio Solarino</i>
11:30 AM – 1:00 PM	J9	Adverse Childhood Experiences and Antisocial Behavior Among Incarcerated Individuals: Unveiling the Link and Implications for Mental Health Support in Correctional Facilities <i>Sanya Gaur*; Jagmahender Singh Sehrawat, PhD</i>
11:30 AM – 1:00 PM	J10	Brainwashing in Cults: Sexual Abuse and Delayed Treatment Until It Is Too Late <i>Caterina Bosco, MD; Lucia Tattoli, MD, PhD*; Cristiano Barbieri, PhD; Ignazio Grattagliano*; Gabriele Rocca; Giancarlo Di Vella, MD, PhD*</i>

Around The Forensic Psychiatry World in Sickness and in Health

Moderator: Corina Freitas, MD, BSc, MBA

Co-Moderator: G. David Annas, MD, MPH

9:00 AM – 9:30 AM	J11	When Forensic Patients Want to Cross the Border: The Canadian Experience <i>Sebastien S. Prat, MD*; Lauren Barney, BA, JD</i>
9:30 AM – 10:00 AM	J12	Fitness to Stand Trial Under Canadian Criminal Law: A New Leaf After Bharwani <i>Lauren Barney, BA, JD*; Sebastien S. Prat, MD*</i>
10:00 AM – 10:30 AM	J13	Competence to Stand Trial Training in Forensic Psychiatry Fellowships <i>Faiz Kidwai, DO*; George D. Annas, MD, MPH</i>
10:30 AM – 10:55 AM	J14	Exploring the Intersection of Mental Health and the Criminal Justice System in the United Kingdom <i>Claire Power, MSc*; Fiona Wilcox, MD, CPE; Richard Walters, LLB; Nikolas Lemos, PhD</i>
10:55 AM – 11:00 AM		BREAK
11:00 AM – 11:30 AM	J15	Trauma Responses and Coping Mechanisms in the Field of Forensics <i>Brianna Simental, MS*; Ismail M. Sebetan, MD, PhD*; Paul Stein, PhD*</i>

PSYCHIATRY & BEHAVIORAL SCIENCE

11:35 AM – 11:50 AM **J16** **Health and Wellness: A Study Assessing Stress Using Physiological and Self-Reported Data Among Medicolegal Death Investigators**
*Jennifer Rineer, PD**; *Kelly Keyes, BS*; *Crystal Daye, MPA*; *Sean Wire, ABD*;
Avonne J. Armbrister, MPH; *Julia Brinton, MA*

11:50 AM – 1:00 PM **BREAK**

Institutional Forensics

Moderator: TBD

Co-Moderator: Corina Freitas, MD, BSc, MBA

1:00 PM – 2:00 PM **J17** **Upholding the Constitutional Standard of Care: Correctional Mental Health Monitoring and Investigational Expert Work Across the Spectrum of Detention Centers**
*Kahlil Johnson, MD**; *Corina Freitas, MD, MBA*

2:00 PM – 2:30 PM **J18** **Barriers to the Great Outdoors: Balancing Psychiatric Patients' Rights and Safety**
*Robert Polo, MD**

2:30 PM – 2:55 PM **J19** **Has CARE-ing Gone Too Far? An Overview of California's Controversial "CARE Court" for Outpatient Civil Commitment**
*Collin Shumate, MD**

2:55 PM – 3:45 PM **J20** **Bridging the Divide: A Comparative Analysis of Military and Civil Forensic Psychiatry**
*John F. Chaves, MD**

3:45 PM – 4:00 PM **BREAK**

4:00 PM – 5:00 PM **J21** **Not Guilty by Reason of Insanity (NGRI) for Florida Teen Who Murdered Two Strangers and Engaged in Cannibalism: Implications for Forensic Mental Health Professionals**
*Emily D. Gottfried, PhD**; *Christopher Fields, MD**; *Edward Thomas Lewis, MD**;
*Diana Mullis, MD**

Friday

Poster Session

11:30 AM – 1:00 PM **J22** **Catfish: How the Internet Can Lead to a Double Tragedy**
Lucia Tattoli, MD, PhD; *Cristiano Barbieri, PhD*; *Caterina Bosco, MD*; *Ignazio Grattagliano**;
*Giancarlo Di Vella, MD, PhD**

11:30 AM – 1:00 PM **J23** **Evaluating Handwriting Variance in the Detection of Deception: An Exploratory Study of Qualitative and Quantitative Approaches**
*Heidi H. Harralson, MA**; *Hans-Leo Teulings, PhD*; *Larry S. Miller, PhD*

11:30 AM – 1:00 PM **J24** **Medicolegal Investigations in Cases of Death Due to Escape From Health Care Facilities in Psychiatric Subjects: The Management of the Prevention of Fatal Events**
*Matteo Antonio A. Sacco, MD**; *Valerio Riccardo Aquila*; *Maria Cristina Verrina, MD**;
Luca Calanna, MD; *Pietrantonio Ricci, PhD, MD*; *Raffaele La Russa, MD, PhD*;
*Isabella Aquila, PhD, MD**

11:30 AM – 1:00 PM **J25** **On Pathological Religiosity: Technical Reflection Points From an Expert Case Study**
Cristiano Barbieri, PhD; *Ignazio Grattagliano*; *Pagani Kimberly, MSL*; *Anna Cassano*;
Maria Grazia Violante, LM; *Roberta Risola, MD*; *Eleonora Murani*; *Lucia Tattoli, MD, PhD*;
Caterina Bosco, MD; *Giancarlo Di Vella, MD, PhD**

PSYCHIATRY & BEHAVIORAL SCIENCE

- 11:30 AM – 1:00 PM **J26** **Self-Stigma in Alcohol Use Disorder in the Context of a Fitness-to-Drive Medical Assessment**
*Cristian Palmiere, MD, PhD**; *Maria Pia Scarpelli, MD*
- 11:30 AM – 1:00 PM **J27** **Serial Killers: Does Gender Make a Difference?**
*Trasey Roby, MS**; *Ismail M. Sebetan, MD, PhD**; *Paul Stein, PhD**
- 11:30 AM – 1:00 PM **J28** **The Importance of Surveillance and Storage of Drugs in Prison**
*Matteo Antonio A. Sacco, MD**; *Fabrizio Cordasco, MD*; *Valerio Riccardo Aquila*;
Carmen Scalise, PhD, MD; *Maria Cristina Verrina, MD**; *Luca Calanna, MD*;
*Alessandro Pasquale Tarallo, MD**; *Giulio Pulpito, MD**; *Marinika Salasco*;
Pietrantonio Ricci, PhD, MD; *Isabella Aquila, PhD, MD**
- 11:30 AM – 1:00 PM **J29** **The Influence of Traumatic Life Events and Subsequent Psychopathology on Recidivism: A Critical Review**
*Sanya Gaur**; *Jagmahender Singh Sehwawat, PhD*
- 11:30 AM – 1:00 PM **J30** **The Role of Graphology in Forensic Investigations in Cases of Imputability Assessment Through the Analysis of the Writings of Prisoners**
Palmo Tavernese; *Lucia Tarda, MD*; *Matteo Antonio A. Sacco, MD**; *Valerio Riccardo Aquila*;
*Maria Cristina Verrina, MD**; *Luca Calanna, MD*; *Wandamaria Mazzuca*;
Pietrantonio Ricci, PhD, MD; *Felice Francesco Carabellese, MD*; *Isabella Aquila, PhD, MD**

Psychiatry & Behavioral Science

Moderator: Grace Cheney, MD

Co-Moderator: Michael Hernandez, BS

- 9:00 AM – 9:30 AM **J31** **Does Violent Pornography Beget Real-World Violence?**
*Jeffrey M. Sanders, MD, MHA**
- 9:30 AM – 10:00 AM **J32** **Munchausen by Proxy Syndrome: When We Dare and Why We Dare to Care**
*Mariagrazia Marisei, MD**; *Pascale Basilicata*; *Angela Simonelli*; *Angela Silvestre, PhD*;
Anita Sammarco, MD; *Gaetano Di Donna, MD*; *Massimo Niola, PhD*; *Maria Pieri*
- 10:00 AM – 10:15 AM **BREAK**
- 10:15 AM – 10:45 AM **J33** **Suicide Notes: Postmortem Analysis and Preventive Considerations**
*Eugenio Jacopo Piero Gallotti, MD**; *Giacomo Belli, MD*; *Veronica Sala, DM*;
Mateus E. Romao, MSc; *Bjond Hasballa, MD*; *Greta Seveso, DM*; *Gianmarco Argentiero, MD*;
Luca Morini, PhD; *Gulnaz T. Javan, PhD*; *Silvia D. Visonà, MD, PhD*
- 10:45 AM – 11:45 AM **J34** **Neuroscience in the Courtroom**
*Octavio Choi, MD, PhD**; *Grace Cheney, MD*; *Gayathri J. Dowling, PhD*; *Michael Hernandez, MD*
- 11:45 AM – 1:00 PM **BREAK**

Multidisciplinary Forensic Psychopharmacology: Treatment Updates, Toxicology, Pathology, Legal, and Medical Ethical Considerations

Moderator: Vivian Shnaidman, MD

- 1:00 PM – 4:30 PM **J35** **Advancing Forensic Psychopharmacology: A Comprehensive Update for Forensic Scientists**
*Corina Freitas, MD, MBA**; *Anita Rajkumar, MD*; *George D. Annas, MD, MPH*

QUESTIONED DOCUMENTS

Thursday

Poster Session

- 11:30 AM – 1:00 PM **K1** **A Comparative Analysis of Wet Ink and Digitally Captured Handwriting: Real-World Applications**
*Steven N. Bunch, BS**; *Heidi H. Harralson, MA*; *Larry S. Miller, PhD*
- 11:30 AM – 1:00 PM **K2** **Estimating Sufficiency of the Pairwise Euclidean Distance on Sets of Handwritten Documents**
*Cami Fuglsby, PhD**; *Christopher P. Saunders, PhD*; *Danica M. Ommen, PhD*;
JoAnn Buscaglia, PhD
- 11:30 AM – 1:00 PM **K3** **The Mozart Scribe: Applying Forensic Handwriting Examination Methods to Identify Scribes in 18th-Century Music Calligraphy Manuscripts**
Martin W. Jarvis, PhD; *Heidi H. Harralson, MA**
- 11:30 AM – 1:00 PM **K4** **The Influence of Writing Speed in Forensic Handwriting Analysis: A Case Study on Suicide Notes**
*Mardi Scheepers**

Questioned Documents Technical Session I

Moderator: Linda Mitchell, BS

Co-Moderator: Adam Hartzell, MS

- 8:30 AM – 8:50 AM **K5** **A Conservation Approach to Thermal Printer Ribbon Preservation and Imaging**
*Tobin A. Tanaka, BSc**; *Caroline Bernier*; *Sincere Ip, MSc*; *Helen Kolodziejczyk, MSc, FSc*
- 8:50 AM – 9:10 AM **K6** **A Study of Natural Variations in Handwritten Signatures: Implications in Forensic Examinations**
*Rakesh Meena, MSc**; *Nandini Chitara, MSc*; *Ankita Guleria, MSc*; *Kewal Krishan, PhD*;
Abhik Ghosh, PhD
- 9:10 AM – 9:30 AM **K7** **Above and Beyond: Examining “Hidden” Features in Travel and Identity Documents**
*Carolyn Bayer-Broring, MFS**
- 9:30 AM – 9:45 AM **K8** **A Cleaner Cascade Method for EDD: Toner Developer Guides**
*Mark Goff, BA**
- 9:45 AM – 10:00 AM **K9** **The Characterization and Identification of Historical Inks and Their Colorants**
*Sarah Mosinski**; *Jordyn Guse*; *Ethan Groves, BS*; *Katie M. White, MSc*; *Skip Palenik, BS*;
Christopher S. Palenik, MS, PhD
- 10:00 AM – 10:30 AM **K10** **Using Variable Light Source Technology to Support World War II Service Member Identification**
*Sarah C. Kindschuh, PhD**; *Larkin Kennedy, PhD*

10:30 AM – 10:45 AM

BREAK

Moderator: Adam Hartzell, MS

Co-Moderator: Linda Mitchell, BS

- 10:45 AM – 11:05 AM **K11** **Attempts to Clone Stamp Impressions Via Stamps Produced by Additive Manufacturing**
*Tobin A. Tanaka, BSc**

QUESTIONED DOCUMENTS

11:05 AM – 11:25 AM	K12	Bad Things Can Happen to Good Signatures <i>Linton Mohammed, PhD*</i>
11:25 AM – 11:45 AM	K13	Chemometric and Spectroscopic Approaches in Questioned Document Examination <i>Vishal Sharma, PhD*</i>
11:45 AM – 12:15 PM	K14	FDE Forum <i>Carl R. McClary, MS*; Karen J. Nobles, MS; Samiah Ibrahim, BSc, BA</i>
12:15 PM – 1:15 PM		BREAK

Questioned Documents Technical Session II

Moderator: Mark Goff, BA

Co-Moderator: Linda Eisenhart

1:15 PM – 1:30 PM	K15	Forensic Digital Document Examination: Moving Forward in a Post-Pandemic Society <i>Timothy Campbell, BSc*</i>
1:30 PM – 1:45 PM	K16	Quantifying Bayes Factors for Forensic Handwriting Evidence <i>Anyesha Ray, BS*; Danica M. Ommen, PhD</i>
1:45 PM – 2:15 PM	K17	Quantifying Writer Variance Through Rainbow Triangle Graph Decomposition <i>Alexandra Arabio, BS*; Alicia Laura Carriquiry, PhD; Danica M. Ommen, PhD</i>
2:15 PM – 2:35 PM	K18	The Collection and Characterization of Counterfeit State Identity Cards and Driver's Licenses at the Homeland Security Investigations Forensic Laboratory <i>Luther S. Schaeffer, MFS, MS*; Elaine X. Wooton, MFS*</i>
2:35 PM – 2:55 PM	K19	The Discrimination and Characterization of Computer-Generated Printed Documents Using Energy-Dispersive X-Ray Fluorescence Spectroscopy Coupled With Chemometrics <i>Neha Verma, MSc, PhD*; Vishal Sharma, PhD; Dinesh K. Sahu, MSc, PhD</i>
2:55 PM – 3:25 PM	K20	The Hitler Diaries Revisited <i>Thomas W. Vastrick, BSc*</i>
3:25 PM – 3:40 PM		BREAK

Moderator: Linda Eisenhart

Co-Moderator: Mark Goff, BA

3:40 PM – 4:25 PM	K21	A Framework for the Creation of QuompenDium—The Mega-Site for All Things QD <i>Zain Bhaloo, MSc, BScH*</i>
4:25 PM – 4:55 PM	K22	A Proposal to Update SWGDOC Standards During the Transition Period: A Discussion <i>Thomas W. Vastrick, BSc*</i>
4:55 PM – 5:15 PM	K23	An Update on Standards Development Activities Related to Forensic Document Examination <i>Kevin P. Kulbacki, MSFS*</i>
5:15 PM – 6:00 PM	K24	New ASB Standards for Forensic Document Examiners: How They Differ From the Standards They Superseded and What You Need to Know to Use Them <i>Mark Goff, BA*; Stephanie Kingsbury, MSFS*</i>

TOXICOLOGY

Wednesday

Poster Session

7:30 PM – 9:00 PM	L1	Comparing the Performance of LC-QqQ-MS vs. LC-QTOF-MS for Targeted Analysis of NPS With a Test Mixture of 40 NPS and Metabolites in Whole Blood, Urine, and Oral Fluid <i>Rebecca L. Smith, MS*</i> ; <i>Anthony P. DeCaprio, PhD</i>
7:30 PM – 9:00 PM	L2	4-Substituted AH-7921 Analogs: Isomer Selection During Synthesis and Pharmacological Profile <i>John L. Krstenansky, PhD, MBA*</i>
7:30 PM – 9:00 PM	L3	A Rare Case of Fatal Levamisole Toxicity <i>Mark E. Shelly*</i> ; <i>Robert Johnson, PhD</i> ; <i>Vanessa T. Lopez-Campos, BS</i> ; <i>Aria McCall, BS</i>
7:30 PM – 9:00 PM	L4	A Mass Disaster Caused by Gas Leaks: A Case Report and a Forensic Workflow Proposal <i>Massimiliano Esposito, MD*</i> ; <i>Federica Ministeri, MD</i> ; <i>Salvatore Rocuzzo, MD</i> ; <i>Nunziata Barbera, MD</i> ; <i>Fabrizio Vanaria</i>
7:30 PM – 9:00 PM	L5	Postmortem Redistribution in Forensic Toxicological Investigations <i>Pietro Zuccarello, PhD*</i> ; <i>Monica Salerno, MD</i> ; <i>Massimiliano Esposito, MD</i> ; <i>Francesco Sessa, MS, PhD</i> ; <i>Nunziata Barbera, MD</i>
7:30 PM – 9:00 PM	L6	My Way: A Case of Letal Intoxication of an Animal Euthansia Drug in a Veterinary Doctor <i>Gianluca Musci, MD*</i> ; <i>Alessandra Petruzzellis, MD</i> ; <i>Gianluca Gravili, MD</i> ; <i>Giorgio De Donno, MD</i> ; <i>Stefania Galizia, MD</i> ; <i>Gianfrancesco Di Nunno, MD</i> ; <i>Antonio De Donno, MD</i>
7:30 PM – 9:00 PM	L7	A Ten-Year (2013–2022) Retrospective Analysis of Road Traffic Deaths in the Northern Italian Region of Campania <i>Anna Carfora, PhD</i> ; <i>Alessandro Feola, MD, PhD*</i> ; <i>Raffaella Petrella, PhD</i> ; <i>Giusy Ambrosio, MD</i> ; <i>Stefano Festinese, MD</i> ; <i>Ilaria Fracassi, MD</i> ; <i>Paolo Palermo, MD</i> ; <i>Martina Zampone, MD</i> ; <i>Carlo Pietro Campobasso, MD, PhD</i>
7:30 PM – 9:00 PM	L8	Trends in Neonatal Deaths From Fentanyl <i>Emily Fenton, MBA, MSFS*</i> ; <i>Kari M. Midthun, PhD</i> ; <i>Brianna Peterson, PhD</i>
7:30 PM – 9:00 PM	L9	WITHDRAWN
7:30 PM – 9:00 PM	L10	A Complete Review of Propofol Misuse in the Health Care System and as a Drug of Abuse <i>Jidabha Apiluk, BS*</i> ; <i>Sajeel Shah, PhD, MS</i> ; <i>Nikolas P. Lemos, PhD</i>
7:30 PM – 9:00 PM	L11	A Retrospective Analysis of Results From United States Court-Ordered Mandatory Drug Testing of Oral Fluid and Hair and the Impacts of Expanding the Testing Scope for Fentanyl and Fentanyl-Related Compounds <i>Jeri D. Roper-Miller, PhD*</i> ; <i>Megan Grabenauer, PhD</i> ; <i>Nichole D. Bynum, MS</i> ; <i>Nicolas Richardson, PhD</i>
7:30 PM – 9:00 PM	L12	Drops of Insanity? Tropicamide Recreational Usage: Early Warning Alarms in Forensic Science <i>Sushil Bhatt, m, PGDST*</i> ; <i>Jagmahender Singh Sehwat, PhD</i>
7:30 PM – 9:00 PM	L13	Biofluid Sampler: A Promising Sampling and Sample Preparation Platform for Forensic Toxicological Investigations <i>Abuzar Kabir, PhD*</i> ; <i>Marcello Locatelli, PhD</i> ; <i>Kenneth G. Furton, PhD</i>

TOXICOLOGY

- 7:30 PM – 9:00 PM **L14** **Quantitation of Delta-8-Tetrahydrocannabinol in Postmortem Specimens by the Method of Standard Addition**
*Robert M. Lockwood, PhD**; *Taikeria Adams, BS*; *Curt E. Harper, PhD*
- 7:30 PM – 9:00 PM **L15** **Fabric Phase Sorptive Extraction: A Green Sample Preparation Strategy for Forensic Toxicology**
Abuzar Kabir, PhD; *Kenneth G. Furton, PhD**; *Marcello Locatelli, PhD*
- 7:30 PM – 9:00 PM **L16** **A Comparative Analysis of Accuracy, Precision, and LOD in AAS and TMA for the Quantification of Cadmium in the Blood Samples**
*Jatin Kumar Drall, BTech**; *Ajay Kumar Kataria, MTech*
- 7:30 PM – 9:00 PM **L17** **The Determination of Cadmium in Blood by Voltammetry Using Hanging Mercury Drop Electrode (HMDE)**
*Ashok Kumar Jaiswal, PhD**
- 7:30 PM – 9:00 PM **L18** **Identifying Designer Benzodiazepines in Blood Using Gas Chromatography/Mass Spectrometry**
*Devin Baer**; *Michael T. Truver, PhD*; *Sara C. Brogan, BS*; *Jennifer L. Hoyer, MS*; *Michele Crosby*; *Chris W. Chronister, PhD*
- 7:30 PM – 9:00 PM **L19** **The Impact of Gold Top SST (Gel and Clot) Collection Tubes on Cannabinoid Quantitative Analysis in Blood**
Bridget O’Leary, MS; *Marta Concheiro-Guisan, PhD**
- 7:30 PM – 9:00 PM **L20** **Designer Benzodiazepine ELISA Cross-Reactivity**
*Leonela M. Placencia, BS**; *Nicholas B. Tiscione, MS*
- 7:30 PM – 9:00 PM **L21** **EC-SERS and DART®-TOF/MS for Toxicological Screening**
*Colby E. Ott, PhD**; *Edward Sisco, PhD*
- 7:30 PM – 9:00 PM **L22** **A Validated Method for Quantification of Buprenorphine/Naloxone and Its Primary Metabolites in Clinical Human Breast Milk, Maternal and Infant Plasma Samples Using Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)**
*Munchelou M. Gomonit, BS**; *Krystle McConnell, BA, MPH*; *Lauren M. Jansson, MD*; *Madeleine J. Swortwood, PhD*
- 7:30 PM – 9:00 PM **L23** **An Evaluation and Comparison of the Evidence MultiSTAT to GC/MS for the Detection of Morphine, Codeine, and Thebaine in Urine and Oral Fluid**
*Amanda L. Pacana, BS, MSFS**; *Britni Skillman, PhD*; *Madeleine J. Swortwood, PhD*; *Stacie Terry, MSFS*
- 7:30 PM – 9:00 PM **L24** **An Investigation of Phthalate Levels in Teething Devices for Children in the United Arab Emirates**
*Vipula Aravamudhan**; *Nrashant Singh*; *Deveshi Kachroo*; *Noora Najeeb*
- 7:30 PM – 9:00 PM **L25** **The Validation of an LC/QqQ/MS Method for the Detection of Single Doses of Drugs in Hair**
*Kaylyn Ann Keith**; *Anthony P. DeCaprio, PhD*
- 7:30 PM – 9:00 PM **L26** **The Development of a Reference Material for Chemical Hair Analysis**
*Kaitlyn Bonilla, BS**; *Charlene Harris, BS*; *Chloe Phillips*; *Matthieu Baudelet, PhD*
- 7:30 PM – 9:00 PM **L27** **Streamlining Blood LC/MS/MS Workflows to Meet ASB/OSAC Recommendations for Medicolegal Death and Impaired Driving Cases**
*Jason Truskowski, BS**

TOXICOLOGY

- 7:30 PM – 9:00 PM **L28** **Streamlining Urine LC/MS/MS Workflows to Meet ASB/OSAC Recommendations for Drug-Facilitated Crime Investigations**
*Jason Truskowski, BS**
- 7:30 PM – 9:00 PM **L29** **“Hang on a Minute”: Developing Improved Separation Methodologies for Weakly Retained Polar Molecules in LC/MS/MS**
Briana Rose Alarcon, BS; William H. Campbell, PhD*
- 7:30 PM – 9:00 PM **L30** **The Separation of Fentanyl Analogs and Fentanyl Analog Isomers by LC/MS/MS**
Erika L. Sitch, MPS; Briana Rose Alarcon, BS*; William H. Campbell, PhD*
- 7:30 PM – 9:00 PM **L31** **What Are You Smoking? A Derivatization to Improve the Analysis of Tetrahydrocannabinol (THC) Isomers Via LC/MS/MS**
Olesia Leonna Headen; William H. Campbell, PhD*
- 7:30 PM – 9:00 PM **L32** **The Quantitation of 106 Drugs in Urine Using a High-Throughput, Seven-Minute Method by High Resolution Mass Spectrometry and Triple Quadrupole**
Courtney Patterson; Mark Tracy; Kristine van Natta; Stephanie Samra; Kerry Hassell*
- 7:30 PM – 9:00 PM **L33** **Urine Immunoassay Cross-Reactivity of Various OTC and Prescription Drugs**
Fatima Chavez-Esparza, BS; Courtney Sellens, MS, BS; Qiyang Zhang, PhD; Melissa M. Bailey, MSFS, PhD; Timothy P. Rohrig, PhD; Connor DeJesus, MS, BS*
- 7:30 PM – 9:00 PM **L34** **Don’t Huff Before You Blow!**
Genevieve Huppe, MSc; Julie Motard, MSc; Cynthia Roy, MSc; Anthony Gelinas, BSc; Pascal Mireault, MSc*
- 7:30 PM – 9:00 PM **L35** **Evaluating Drug Positivity Trends in Fatally Injured Drivers, Passengers, and Pedestrians in Connecticut**
Amanda L.A. Mohr, MS; Grace Cieri, BS; James R. Gill, MD; Barry K. Logan, PhD*
- 7:30 PM – 9:00 PM **L36** **Drivers Under the Influence of Alcohol and Drugs: A Six-Year (2017–2022) Retrospective Analysis in a Southern Italian Region**
Anna Carfora, PhD; Alessandro Feola, MD, PhD; Raffaella Petrella, PhD; Giusy Ambrosio, MD; Ilaria Fracassi, MD; Paolo Palermo, MD; Martina Zampone, MD; Carlo Pietro Campobasso, MD, PhD*
- 7:30 PM – 9:00 PM **L37** **Pediatric Poisoning: A Plan of Action for Early Diagnosis and Treatment**
*Pascale Basilicata; Mariagrazia Marisei, MD; Rossella Guadagni; Angela Simonelli; Gaetano Di Donna, MD; Anita Sammarco, MD; Massimo Niola, PhD; Maria Pieri**
- 7:30 PM – 9:00 PM **L38** **The Effects of Ethanol on GABA Catabolism Via GABA-Transaminase**
Mary Corrigan; Robert H. Powers, PhD*
- 7:30 PM – 9:00 PM **L39** **Crotalus Snake Venoms of North and South America: Their Symptoms, Treatments, and Potential Medical Applications**
Victoria Hudson, MSc; Sajeel Shah, PhD, MS; Nikolas P. Lemos, PhD*
- 7:30 PM – 9:00 PM **L40** **A Review of Popular Illegal Performance-Enhancing Drugs in Sports and Gyms**
Rami Abbas, BS; Sajeel Shah, PhD, MS; Nikolas P. Lemos, PhD*
- 7:30 PM – 9:00 PM **L41** **An Evaluation of Long-Term Health Effects From Acute Exposure to Toxic Chemicals**
*Theresa Pennington**

TOXICOLOGY

-
- 7:30 PM – 9:00 PM **L42** **Future Strategies in Drug Trend Monitoring and Harm Reduction**
*Agnieszka Urban, BSc**; *Geraldine Dowling, PhD, MSc*; *Sajeel Shah, PhD, MS*;
Nikolas P. Lemos, PhD
- 7:30 PM – 9:00 PM **L43** **A Review of Factors Affecting the Interpretability of Postmortem Cannabinoid Concentrations and Their Limitations**
Sherri L. Kacinko, PhD; *Daniel S. Isenschmid, PhD*; *Barry K. Logan, PhD**

Thursday

Annual Lectureship in Toxicology

Moderator: Dayong Lee, PhD

Co-Moderator: Erin Karschner, PhD

- 8:30 AM – 9:45 AM **L45** **Annual Lectureship in Toxicology**
- 9:45 AM – 10:15 AM **L46** **An Update on Standards Development Activities in Forensic Toxicology**
*Marc A. LeBeau, PhD**
- 10:15 AM – 10:30 AM **BREAK**

Novel Psychoactive Substances

Moderator: Svante Vikingsson, PhD

Co-Moderator: Elisa Shoff, MS

- 10:30 AM – 10:45 AM **L47** **Quantitation of Hexahydrocannabinol and Metabolites in Blood From Recreational Users**
*Robert Kronstrand, PhD**; *Markus Roman*; *Henrik Gréen*; *Michael T. Truver, PhD*
- 10:45 AM – 11:00 AM **L48** **Determining Delta 9-THC Acetate Analog Metabolites Using Human Liver Microsomes to Determine the Structure and Rate of Metabolism**
*Natalie Ortiz, BS**; *Justin L. Poklis, BS*; *Kimberly Karin, MS*; *Grace R.R. Williams, PhD*;
Carl E. Wolf, PhD
- 11:00 AM – 11:15 AM **L49** **The Metabolism of THC-O-Acetate (THCO)—An Emerging Drug Threat**
*Ya-Chih (Jessica) Cheng, MS**; *Charles R. Perkins, MS, BS*; *Sarah Kerrigan, PhD*
- 11:15 AM – 11:30 AM **L50** **A Quantitative Confirmation Assay of New and Emerging Synthetic Cannabinoids by LC/QqQ/MS**
*Haley Lynn Bibey, BS**; *Sara Walton, MS*; *Heather L. Harris, MFS, JD*; *Alex J. Krotulski, PhD*
- 11:30 AM – 11:45 AM **L51** **A Case Series Involving the Synthetic Cathinone Alpha-PiHP in Postmortem Forensic Investigations**
*Sara Walton, MS**; *Donna M. Papsun, MS*; *Michael E. Lamb, MSFS, BS*; *Alex J. Krotulski, PhD*;
Simon Elliott, BSc, PhD; *Kerry Taylor, BSc*; *Michael T. Truver, PhD*; *Barry K. Logan, PhD*
- 11:45 AM – 1:00 PM **BREAK**

TOXICOLOGY

Multidisciplinary Session: Pathology/Biology and Toxicology

Moderator: Vivian Shnaidman, MD

- | | | |
|-------------------|------------|---|
| 1:00 PM – 1:15 PM | L52 | 2C or Not Tusi? The Emergence of a New Drug Combination in Miami
<i>Rocio Potoukian, BS*</i> ; <i>Diane Moore, PhD</i> ; <i>Kenneth Hutchins, DM</i> |
| 1:15 PM – 1:30 PM | L53 | The Frequency and Analysis of Kratom in Postmortem Cases
<i>William M. Schroeder, II, MS*</i> ; <i>Donna M. Papsun, MS</i> ; <i>Justin Brower</i> |
| 1:30 PM – 1:45 PM | L54 | Postmortem Diagnosis of Ketoacidosis: The Importance of Beta-Hydroxybutyrate Quantification as Part of Routine Toxicological Screening at Autopsy
<i>Jeroen Roosendaal, PhD*</i> ; <i>Astrid Christiaens, MD</i> ; <i>Kiki Van Langen, MD</i> ;
<i>Ingrid Bosman, PhD, MSFS</i> |
| 1:45 PM – 2:00 PM | L55 | A Case Series of Suicides by Sodium Azide Ingestion: An Update
<i>Ingrid Bosman, PhD, MSFS*</i> ; <i>Roelof Oosting, PharmD</i> ; <i>Dick-Paul Kloos, PhD</i> ; <i>Bart Ruiter</i> ;
<i>Jeroen Roosendaal, PhD</i> ; <i>Kristof Maudens, PhD</i> |
| 2:00 PM – 2:15 PM | I78 | I Didn't Want to Kill Him! The Role of Cocaine in Pseudoasphyxia by Compression of the Carotid Sinus
<i>Eleonora Mezzetti, MD*</i> ; <i>Matteo Leoni, MD</i> ; <i>Andrea Costantino, MD</i> ; <i>Carla Occhipinti, MD</i> ;
<i>Rebecca Pieretti, MD</i> ; <i>Aniello Maiese, MD</i> |
| 2:15 PM – 2:30 PM | I79 | Not So Much the "Spice" of Life: Identifying a Source for a Series of MDMB-4en-PINACA Deaths
<i>Michael Chaump, MD*</i> ; <i>Robert Johnson, PhD</i> ; <i>Aria McCall, BS</i> ; <i>Kei Osawa, MFS</i> ;
<i>Steven J. Hemberger, DO</i> ; <i>Mark E. Shelly</i> ; <i>Richard Fries</i> ; <i>Dana Hopson, MD</i> |
| 2:30 PM – 2:45 PM | I80 | Elevated Beta-Hydroxybutyrate Within a Pediatric Population and Its Associated Pathology: A Retrospective Case Series
<i>Nasim Haghbandish, MDCM, PhD*</i> ; <i>Chris Milroy, MD, LLB</i> ; <i>Jacqueline Parai, MD</i> ;
<i>Anthea Lafreniere, MD</i> |
| 2:45 PM – 3:00 PM | I81 | Pediatric Fatalities Due to Methadone Toxicity in Cook County, Illinois: Considerations on the Manner of Death
<i>Lorenzo Gitto, MD*</i> ; <i>Daniel S. Isenschmid, PhD</i> ; <i>Ponni Arunkumar, MD</i> |
| 3:00 PM – 3:15 PM | | BREAK |

Drugs and Driving Special Session

Moderator: Marilyn Huestis, PhD

Co-Moderator: Curt Harper, PhD

- | | | |
|-------------------|------------|---|
| 3:15 PM – 3:30 PM | L56 | Ketamine in Driving Under the Influence of Drugs (DUID) Cases: 2015–2023
<i>Amanda L. D'Orazio, MS*</i> ; <i>Ayako Chan-Hosokawa, MS</i> |
| 3:30 PM – 3:45 PM | L57 | DUID Cannabinoid Investigations: Blood, Oral Fluid, or Urine—Which Is the Superior Specimen?
<i>Curt E. Harper, PhD*</i> ; <i>Clarissa Lawen</i> ; <i>Kristin Tidwell, BS</i> ; <i>Gil Sapir, JD, MSc</i> |

TOXICOLOGY

3:45 PM – 4:00 PM	L58	The Detection of Cannabinoids in Exhaled Breath Condensate After Cannabis Use <i>Jennifer L. Berry, PhD*</i> ; <i>Kavita M. Jeerage, PhD</i> ; <i>Cheryle N. Beuning, PhD</i> ; <i>Ashley Brooks-Russell, PhD</i> ; <i>Tara Lovestead, PhD</i>
4:00 PM – 4:15 PM	L59	Cocaine and Benzoyllecgonine in Blood and Oral Fluid of DUID Cases (2018–2022) <i>Michael L. Weaver*</i> ; <i>Clarissa Lawen</i> ; <i>Christopher Bartle</i> ; <i>Curt E. Harper, PhD</i>
4:15 PM – 4:30 PM	L60	Mile High: A Five-Year Review of Fentanyl Trends in Colorado Impaired Driving Cases <i>Stephanie Olofson, BS, MS*</i>
4:30 PM – 4:45 PM	L61	Impaired Driving Cases With Bromazolam <i>Nicholas B. Tiscione, MS*</i> ; <i>Edward Zumaeta</i>

Friday

General Forensic Toxicology

Moderator: Chris Heartsill

Co-Moderator: Aaron Shapiro, PhD

8:30 AM – 8:45 AM	L62	An Outlook on Fentanyl Adulteration: Polydrug Circumstances, Trends, and Tomorrow's Forecast <i>Alex J. Krotulski, PhD*</i> ; <i>Sara Walton, MS</i> ; <i>Donna M. Papsun, MS</i> ; <i>Joshua S. DeBord, PhD</i> ; <i>Barry K. Logan, PhD</i>
8:45 AM – 9:00 AM	L63	Controlled Oral Kratom Leaf Administration to Healthy Humans: Abuse Potential- and Withdrawal-Related Effects, Adverse Events, and Mitragynine and 7-Hydroxy-Mitragynine Plasma Pharmacokinetics <i>Marilyn A. Huestis, MS, PhD*</i> ; <i>John Bothmer, PhD</i> ; <i>Thomas Hudzik, MS, PhD</i> ; <i>Jack E. Henningfield, BA, PhD</i> ; <i>Ramsey Atallah, BA</i>
9:00 AM – 9:15 AM	L64	The Extraction's Always Greener on the Other Side <i>Madeleine E. Wood, MS*</i> ; <i>Joshua Z. Seither, PhD</i> ; <i>John J. Kristofic, BS</i> ; <i>Erin Karschner, PhD</i> ; <i>Jeffrey P. Walterscheid, PhD</i>
9:15 AM – 9:30 AM	L65	Homoamphetamine: A Cautionary Tale <i>Laura Friederich, BS*</i> ; <i>Sandra Bishop-Freeman, PhD</i>
9:30 AM – 9:45 AM	L66	The Bath Salts State: A Comprehensive Review of Substituted Cathinones in Miami From 2011 to 2023 <i>Elisa N. Shoff, MS*</i> ; <i>Zaney E. Mary, BS</i> ; <i>Diane Moore, PhD</i>
9:45 AM – 10:00 AM	L67	The Search for the K-Hole: A Six-Year Study of Ketamine in Postmortem Cases From the Miami-Dade County Medical Examiner Department, 2018–2023 <i>Jennifer Gonyea, BS*</i> ; <i>Diane Moore, PhD</i>
10:00 AM – 10:15 AM	L68	Segmented Workflows and the Confrontation Clause: Achieving Congruence Between Constitutional Guarantees, Laboratory Productivity, and Toxicological Expertise <i>M.J. Menendez, JD*</i> ; <i>Barry K. Logan, PhD</i> ; <i>Daniel T. Anderson, MS</i> ; <i>Donna M. Papsun, MS</i>
10:15 AM – 10:30 AM		BREAK

TOXICOLOGY

Alternative Matrices

Moderator: Marta Concheiro-Guisan, PhD

Co-Moderator: F. Wayne Lewallen, BS

- 10:30 AM – 10:45 AM **L69** **A Quantitative Analysis of Cannabis Exposure Biomarkers in Exhaled Breath Condensate and Oral Fluid**
Meena Swaminathan, MSFS; Anthony P. DeCaprio, PhD*
- 10:45 AM – 11:00 AM **L70** **The Use of Hair Analysis as a Potential Predictor of Tolerance in Decedents With High Fentanyl Concentrations in Fentanyl-Related Deaths: Preliminary Results**
Nicola Pigaiani, MD; Marco Ballotari, PhD, MA; Brandi C. McCleskey, MD; Francesco Taus, PhD; Federica Bortolotti, MD, PhD; Rossella Gottardo, PhD; Gregory G. Davis, MD, MSPH; Karen S. Scott, PhD*
- 11:00 AM – 11:15 AM **L71** **A Quantitative Assessment of Five Hair Drug Testing Laboratories With a Commercial Hair Reference Material**
Edwin Dale Hart, BS; Svante Vikingsson, PhD; Ruth E. Winecker, PhD; Eugene D. Hayes, PhD; Lisa S. Davis, MS; Ron Flegel, MS*
- 11:15 PM – 11:30 AM **L72** **The Gonadotoxic Effects of Tobacco Smoking on Human Seminal Fluid**
Nadeem-Ul-Hassan Khan; Allah Rakha*; Rahat Abdul Rehman*; Shahid Nazir, PhD; Tahmina Rehman*
- 11:30 AM – 11:45 AM **L73** **The Identification of the New Synthetic Opioid N-Piperidinyl Etonitazene (Etonitazepipne) in Postmortem Alternative Matrices**
Erika Buratti, PhD; Gianmario Mietti, PhD; Alice Cerioni, PhD; Marta Cippitelli, PhD; Rino Frolidi, MSc; Mariano Cingolani, MD, MSc; Roberto Scendonì, PhD*
- 11:45 AM – 1:00 PM **BREAK**

23rd Annual Postmortem Pediatric Forensic Toxicology Session

Moderator: Robert Middleburg, PhD

Co-Moderator: Nikolas P. Lemos, PhD

- 1:00 PM – 3:00 PM **L74** **Postmortem Pediatric Forensic Toxicology**
Robert A. Middleberg, PhD; Nikolas P. Lemos, PhD*; Katherine Kenerson, MD*; Andrew Baker, MD*; Sterling J. McLaren, MD*; Diane Moore, PhD*; Zaney E. Mary, BS**

LAST WORD SOCIETY

Thursday

Moderator: Kenneth Melson, JD

Co-Moderator: Carla Noziglia, MS

- | | | |
|---------------------|------------|--|
| 8:00 PM – 8:20 PM | LW1 | A Forensic Analysis of the 1960 Rome Olympics' 100-Meter Dash Final
<i>John David Bullock, MD, MPH*</i> ; <i>Gerald H. Ashworth, MBA</i> ; <i>David Guyton, MD</i> |
| 8:20 PM – 8:40 PM | LW2 | The Strange Deaths of American Presidents
<i>Lawrence Quarino, PhD*</i> |
| 8:40 PM – 9:00 PM | LW3 | (De)coronation Jewels: The “Affair of the Diamond Necklace” Between Historical and Forensic Implications
<i>Matteo Borrini, PhD, MS*</i> |
| 9:00 PM – 9:20 PM | LW4 | The Dreyfus Affair: How Bias in an Infamous Criminal Case Caused a Government to Fail and Another, Overtime, Be Created
<i>Barry A. J. Fisher, MS, MBA*</i> |
| 9:20 PM – 9:40 PM | LW5 | Man vs. “Gator” – The Forensic Story • The “Media” Story
<i>Walter F. Zoller, DMD*</i> |
| 9:40 PM – 10:00 PM | LW6 | The First Full-Service Criminalistics Laboratory: Scientific Detection Laboratory, Chicago, IL
<i>Peter Striupaitis, MS*</i> |
| 10:00 PM – 10:20 PM | LW7 | Will Hatred Never Die? The Murder of Bishop William Alexander Guerry
<i>J.C.U. Downs, MD*</i> |

YFSF POSTER SESSION

Wednesday

Digital & Multimedia Sciences

- 11:30 AM – 1:00 PM **Y1** **The Forensic Acquisition and Inspection of Aftermarket Vehicle Infotainment Systems**
*Jett Brandes, MD**; Andrew Clark; Robert Boggs, APS
- 11:30 AM – 1:00 PM **Y2** **The Impact of Zoom on Smart Phone Camera Identification**
*Gavin Norton**; Stephanie Reinders, PhD
- 11:30 AM – 1:00 PM **Y3** **Known Hash Filtering: An Efficient Way to Eliminate Irrelevant Files and Show Files of Interest in Digital Examinations**
*Jessica A. Smith, BS**; Lyndsay Haak, MS; Timothy G. Suggs, BS; James Trevillian, BS; Josh Brunty, ScD
- 11:30 AM – 1:00 PM **Y4** **Producing Datasets: Capturing Images on Multi-Camera Smart Phones for Source Camera Identification**
*Megan McGuire**; Stephanie Reinders, PhD

Toxicology

- 11:30 AM – 1:00 PM **Y5** **The Quantification of Alcohols and Acetaldehyde in Hand Sanitizers Using Headspace/Gas Chromatography/Mass Spectrometry**
*Chessa To, BS**; Jacob A. Theruvathu
- 11:30 AM – 1:00 PM **Y6** **The Development and Validation of a Biotage® Extrahera™ Automated Extraction Method of Opioids and Their Metabolites in Human Urine Using LC/MS/MS**
*Jessica M. Braeunle, BS**; Marianne Staretz, PhD; Nadine M. Koenig; Dean Fritch, PhD; Thomas A. Brettell, MS, PhD
- 11:30 AM – 1:00 PM **Y7** **The Death of an Accused Person in a Court After the Announcement of the Verdict**
*Massinissa Benyagoub**; Mohamed Oualid; Djamil Azzouz; Redouane Benazzouz
- 11:30 AM – 1:00 PM **Y8** **The Use of Novel Psychoactive Substances (NPS) in Italy: A Comprehensive Meta-Analysis**
*Muhammad Usman, PhD, MS**; Donatella Nardiello; Christian Pallante; Donatella Curtotti; Maurizio Quinto
- 11:30 AM – 1:00 PM **Y9** **Monitoring the New England Drug Supply Through Novel Drug Checking Methods**
*Max T. Denn, MS**; Joshua S. DeBord, PhD; Alexis D. Quinter, MS; Barry K. Logan, PhD; Alex J. Krotulski, PhD
- 11:30 AM – 1:00 PM **Y10** **An Evaluation of Postmortem Redistribution of Δ^9 -Tetrahydrocannabinol (THC) and 11-Nor-9-Carboxy-THC (THC-COOH)**
*Isabelle Chevrier, BSc**; Betty Chow, MSc; Brent Cahill, MSc; James Watterson, PhD
- 11:30 AM – 1:00 PM **Y11** **Chemiluminescent Detection Limitations of Cannabinoids in Edibles and Urine Samples**
*Cristina Elisabeth Lemus**
- 11:30 AM – 1:00 PM **Y12** **Method Development for a Quantitative Panel of Psychoactive Adulterants in Biological Matrices using LC/MS/MS**
*Shayna R. Kasher, BS**

YFSF POSTER SESSION

Thursday

Criminalistics

- 11:30 AM – 1:00 PM **Y13** **Body Fluid Identification From Mixed Samples and Male DNA Confirmation Utilizing SERATEC® PSA and PMB Tests**
*Scarlet Tabitha Neilson, BS**; *Lindsay Loughner Kotchey, MS*; *Mirna Ghemrawi, PhD, MSFS*;
M. Gabriela Roca, MSc, PhD; *Leah Nangeroni, BS*
- 11:30 AM – 1:00 PM **Y14** **Exploring the Performance of an Initial Set of DIP-STR Markers for Biogeographic Ancestry Prediction in United States Populations**
*Lauren Hoopes, BS**; *Diana Hall, MA*; *Fabio Oldoni, MS*
- 11:30 AM – 1:00 PM **Y15** **An Internal Validation of the Janovsky Color Test and Testing the Platinum Chloride Microcrystalline Method for Benzodiazepines**
*Allison M. Swigart, BS**; *Lauren L. Richards-Waugh, PhD*; *Kathleen Schell*;
Rebecca Barlag, PhD, MS; *Lyndsay B. Cone, MS, BS*
- 11:30 AM – 1:00 PM **Y16** **The Use of Leaf Spray PSI-MS for the Detection of Kratom (*Mitragyna Speciosa*) Leaf**
*Macenzie Hope Powell, MS, BA**; *Michael Van Stipdonk, BA, PhD*; *Stephanie J. Wetzel, PhD*;
Theodore A. Corcovilos, PhD; *Hannah Zimmerman-Federle, MS*
- 11:30 AM – 1:00 PM **Y17** **The Effects of Fingerprint Development Techniques on Forensic Cartridge Case Identification**
*Sasha L. Valentino, BA**; *Lyndsie N. Ferrara, PhD*; *Missy Meredith*; *Sarah Varhola, MS*;
Stephanie J. Wetzel, PhD
- 11:30 AM – 1:00 PM **Y18** **The Impact of Age on Strength and Fracture Patterns of the Human Hyoid Bone**
*Olivia DePergola, BA**; *Pamela Marshall, PhD*; *John A. Viator, PhD*; *Suvendra Vijayan, BDS, MS*;
Jennifer L. Hammers, DO
- 11:30 AM – 1:00 PM **Y19** **Surveillance Efforts to Track Drug Market Changes in Philadelphia, Pennsylvania**
*Alexis D. Quinter, MS**; *Joshua S. DeBord, PhD*; *Max T. Denn, MS*; *Barry K. Logan, PhD*;
Alex J. Krotulski, PhD
- 11:30 AM – 1:00 PM **Y20** **The Detection of Low Concentration Ignitable Liquid Residues From Fire Debris Using Gas Chromatography/Mass Spectrometry and an Ignitable Liquid Detection Canine**
*Abigail V. Burke, BA**; *Nancy A. Love, BS*; *Matthew Regentin, MS*; *Stephanie J. Wetzel, PhD*
- 11:30 AM – 1:00 PM **Y21** **An Analysis of Drug Content Distribution on Paper Using Both Soak and Spray Methods by Gas Chromatography/Mass Spectrometry (GC/MS)**
*Aizlynn M. Michel, BA**; *Hannah J. Spitzer, MS*; *Ashley N. Ebert, PhD, BS*;
Stephanie J. Wetzel, PhD
- 11:30 AM – 1:00 PM **Y22** **Examining the Effects of Thermal Stress on the Structure and Downstream DNA Analysis of Human Teeth**
*Michael Allie Brivchik, BA**; *Pamela Marshall, PhD*; *Jennifer L. Hammers, DO*;
Rhonda K.K. Roby, PhD, MPH; *Lisa R. Ludvico, PhD*; *Angie Ambers, PhD*
- 11:30 AM – 1:00 PM **Y23** **An Analysis of the Transfer of Drugs to the Envelope in Mail Over Time and Varying Conditions**
*Madison Ann Eidemueller, BS**; *Erica Maney, MSc*; *Christopher Merrill, BA, MS*;
Stephanie J. Wetzel, PhD

YFSF POSTER SESSION

- 11:30 AM – 1:00 PM **Y24** **Investigation and Detection Methods for Digital and Penile Penetration With No Ejaculation**
*Brianna Gregory, BS**; *Janine M. Kishbaugh, MS*; *Lawrence Quarino, PhD*; *Amrita Lal-Paterson*
- 11:30 AM – 1:00 PM **Y25** **Identifying the Presence of Semen Through the Detection of Fructose**
*Taylor M. McClure, BS**; *Emily Chadwick, MS*; *Pamela Marshall, PhD*;
Michael I. Jensen-Seaman, PhD
- 11:30 AM – 1:00 PM **Y26** **Addressing Sexual Assault in Pakistan: Insights From an Analysis of Female Survivors at Lahore General Hospital**
*Muhammad Ahmad Faraz, MBBS**
- 11:30 AM – 1:00 PM **Y27** **A Gunshot Residue Analysis: The Development of a Combined Procedure for the Detection of Inorganic Elements and Organic Compounds in Traditional and Clean Range Ammunitions Using Spectroscopic Methods**
*Zaire Elijah Fabian, BS**
- 11:30 AM – 1:00 PM **Y28** **The Recovery of Human DNA in an Aqueous Environment Using Novel Technology**
*Halle E. Saf, BS**; *Pamela Marshall, PhD*; *Lisa R. Ludvico, PhD*; *Samantha Border*
- 11:30 AM – 1:00 PM **Y29** **The Optimization of DNA Extraction Methods From Alternative Reference Materials**
*Sophie S. Lee, BS**; *Leah Nangeroni, BS*; *Lindsay Loughner Kotchey, MS*;
Mirna Ghemrawi, PhD, MSFS
- 11:30 AM – 1:00 PM **Y30** **Assessing the Impact Dynamics of Less Lethal Bean Bag Ammunition**
*Brook Fontaine**
- 11:30 AM – 1:00 PM **Y31** **A Comprehensive Examination of STR and Y-STR Profiling in Samples With Limited or Negligible DNA Quantities**
*Chih-Wen Su**
- 11:30 AM – 1:00 PM **Y32** **A Landscape Study: Investigating Potential Links Between Adoption and Serial Killers**
*Amanda F. Piccirilli, BA**; *Pamela Marshall, PhD*; *Lyndsie N. Ferrara, PhD*;
Colleen M. Fitzpatrick, PhD
- 11:30 AM – 1:00 PM **Y33** **The Recovery of Nuclear DNA From Skeletal Remains Decomposed in Freshwater**
*Zoe L. Sikon, BS**; *Ashley G. Morgan, PhD*

Forensic Nursing Science

- 11:30 AM – 1:00 PM **Y34** **Examining the Presence of Foreign DNA on Neck Swabs**
*Alexa M. Gonzalez Morales**; *Lyndsie N. Ferrara, PhD*; *Lisa R. Ludvico, PhD*

Odontology

- 11:30 AM – 1:00 PM **Y35** **Allied Dental Professionals' Identification Accuracy of Burned Teeth**
*Brenda Tallon Bradshaw, BSDH, MS**; *Marsha A. Voelker, MD*; *Samantha Vest, MS*;
Sinjini Sikdar, PhD

YFSF POSTER SESSION

Psychiatry & Behavioral Science

- 11:30 AM – 1:00 PM **Y36** **Pursuit of Justice: Mapping the Future Landscape of Forensic Psychiatry**
*Bellanirys Acosta Arias, MD**; *Alexandra T. Luna, BS*; *Kishan Shah, MD*
- 11:30 AM – 1:00 PM **Y37** **The Makings of a High-Profile Case: How Media Bias Impacts Forensic Investigations in Missing Person Cases**
*Jennifer Fertel, BA**; *Pamela Marshall, PhD*; *Lyndsie N. Ferrara, PhD*; *Charlene E. Shunick, MS*
- 11:30 AM – 1:00 PM **Y38** **Using an Indirect Personality Assessment to Determine the Psychopathy of Timothy McVeigh**
*Mackenzie Miller**; *John Cencich*; *Lyndsie N. Ferrara, PhD*; *Pamela Marshall, PhD*
- 11:30 AM – 1:00 PM **Y39** **Traumatic Brain Injury and Criminal Behavior**
*Bellanirys Acosta Arias, MD**
- 11:30 AM – 1:00 PM **Y40** **Determining the Viability of Breathwork and Meditation as Intervention Techniques for Stress in the Forensic Science Community**
*Prateek Shetty, BS**; *Keisha Jones*

Questioned Documents

- 11:30 AM – 1:00 PM **Y41** **The Extraction and Subsequent Analysis of Gel Pen Ink**
*Elizabeth M. Knittle, BA**; *Stephanie J. Wetzel, PhD*; *Lyndsie N. Ferrara, PhD*;
Sean M. Fischer, PhD

Friday

Anthropology

- 11:30 AM – 1:00 PM **Y42** **The Ethical Considerations of Teaching Skeletons in West Virginia**
*Kristy Henson, MS**; *Jay Bow*
- 11:30 AM – 1:00 PM **Y43** **Restoring Demographic Information of Antique Teaching Skeletons at Fairmont State University**
*Jay Bow**; *Kristy Henson, MS*
- 11:30 AM – 1:00 PM **Y44** **Injury Recidivism as Embodied Evidence of Structural Violence: A Trauma Analysis Examining Fracture Location, Severity, and Occurrence in a New Mexico Forensic CT Sample**
*Emily Romdenne, BS**; *Allysha P. Winburn, PhD*
- 11:30 AM – 1:00 PM **Y45** **An Evaluation of Calcium Removal During Demineralization of Bone for Stable Isotope Analysis of Collagen: A Determination of Optimal Treatment Time**
*Julianne J. Sarancha, MS**
- 11:30 AM – 1:00 PM **Y46** **Evaluating the Effectiveness of Quantitative Skeletal Age Estimation Methods Compared to Traditional Qualitative Methods**
*Ruizhuo Zhang**; *Krista E. Bennett, MA*
- 11:30 AM – 1:00 PM **Y47** **“Known Only to God”: Rediscovering a Historic Freed Slave Cemetery Through the Use of Fluxgate Gradiometry and Its Application to Forensic Science**
*Hannah E. Matulek, MS, BA**; *Savannah Sass, MS**

YFSF POSTER SESSION

Engineering & Applied Sciences

11:30 AM – 1:00 PM **Y48** **A Digital Microfluidic Approach to Processing Forensic Samples**
*Leticia Bodo, MSc**; *Mohamed Elsayed, MSc*; *Jonathan S. Millman, BSc, PhD*;
Aaron Wheeler, PhD

General

11:30 AM – 1:00 PM **Y49** **A Call for Community: Working Toward Humanitarian Solutions to Address Inadequate Indigenous Death Investigations in North America**
*Steff King, MA**; *Gail S. Anderson, PhD*

11:30 AM – 1:00 PM **Y50** **A Probabilistic Genotyping Analysis of Trace DNA and Transfer Evidence**
*Charis Ann Hickey, BS**; *Kelly J. Beatty, MSFS*; *Amy K. Smith, MS*; *Eric Miller, MS*

11:30 AM – 1:00 PM **Y51** **A Semi-Automatic Tool for Footwear Impression Alignment**
*Hana Lee, BS**; *Alicia Laura Carriquiry, PhD*

11:30 AM – 1:00 PM **Y52** **An Interdisciplinary Approach for the Identification of Antique Skeletal Teaching Specimens: DNA Extraction, Forensic Bone Standards, and X-Ray Analysis**
*Cynthia Nichols**

11:30 AM – 1:00 PM **Y53** **Trend Identification in X-Ray Diffraction Peaks of Historic Cartridge Cases From Fort Ord, California**
*Sarina Regis**; *Katelyn K. Huie**; *Madison R. Loewen**; *McKenzie Floyd, MS*

11:30 AM – 1:00 PM **Y54** **A Qualitative Analysis of Xylazine, Nitazenes, and Common Opioids/Analogues by Liquid Chromatography/Tandem Mass Spectroscopy (LC/MS/MS) Following Collection With the M-Vac® Wet-Vacuum System**
*Madeline I. L. Robinson, BS**; *Lauren L. Richards-Waugh, PhD*; *Catherine Rushton, MSFS, EdD*

11:30 AM – 1:00 PM **Y55** **Can the Use of Sharpies® in Forensic Analysis Be a Source of DNA Transfer and Contamination When Examining Difference Fabric Types?**
*Haley Elizabeth Murphy, BS**; *Pamela Marshall, PhD*

Pathology/Biology

11:30 AM – 1:00 PM **Y56** **The Validation of a Manual Selective Degradation Method of Differential Extraction**
*Katelyn Peyton, MS**; *Kelly J. Beatty, MSFS*; *Amy K. Smith, MS*

11:30 AM – 1:00 PM **Y57** **Getting Down and Dirty: Analyzing Changes in Soil Microbiota During Three Stages of Mouse Decomposition**
*Madeline Robinson**; *Emily Nowicki, PhD, BS*; *Samantha J. Sawyer, PhD, BS*

11:30 AM – 1:00 PM **Y58** **A Commotio Cordis Case After a Fall From Height**
Hakan Isik; *Ilkay Kalkanli**; *Gözde Şirin*; *Ahmet Depreli, MD*; *Selçuk Çetin*

11:30 AM – 1:00 PM **Y59** **Comparing 3D Photogrammetry Models Created Using Either Routinely Acquired Autopsy Photographs or Those Taken Specifically for Photogrammetry**
*Malgorzata Pietrzak**; *Anja Petaros*; *Anders Persson, MD, PhD*

YFSF POSTER SESSION

- 11:30 AM – 1:00 PM **Y60** **Fun Run the Bowel: Two Cases of Fatal Gastrointestinal Hemorrhage From Duodenal Ulcers**
*Jessica Schmitt, MD**; *Neil G. Haycocks, MD, PhD*
- 11:30 AM – 1:00 PM **Y61** **Impacts of Desiccants on DNA Quantity and Quality in Sexual Assault Kits Over a One-Year Period**
*Catherine F. Hull, BA**; *Randy Nagy, BS*; *Dana Voris, MS*; *Lisa R. Ludvico, PhD*;
Pamela Marshall, MFS
- 11:30 AM – 1:00 PM **Y62** **The Identification of Biomarkers Associated With Prolonged Starvation in Cat (*Felis Catus*) Bones**
*Annagrace J. Radocaj, BS**; *Lisa R. Ludvico, PhD*; *Becky Morrow, DVM, MS*
- 11:30 AM – 1:00 PM **Y63** **A Low-Cost Microfluidic Biochip Integrated With LAMP for the Rapid Detection of *Streptococcus Pneumoniae* to Aid in Forensic Pathology**
*Angel Gabriel Gutierrez Ruiz**
- 11:30 AM – 1:00 PM **Y64** **An Autopsy Case of an Unusual Association Between the Chiari Network and the Patent Foramen Ovale: An Anatomical Variation or a Risk Factor ? A Case Report**
*Hind Abouzahir, MD, PhD**

KEY WORD INDEX

Δ9

Δ9-Tetrahydrocannabinol-Y11

16

16S rDNA Sequencing-I86, I118

16S Sequencing-B9

3D

3D Coordinate Data-A27

3D Modeling-A68

3D Technology-D1, D4, D5, D8, A71, A74, B23, B24, C10, D16, D19, F12, F38, F44, F77, F81, G23, H11, H18, H20, H21, H39, I22, Y46, Y59, B153, B156, B173, F123, F176

A

Absorption-F10, L13, L15

Abuse Potential-L63

Accident-D2, D8, D9, D24, D39, F28, F63, G23, I26, I40, I77, I90, F111, F143, F152, I101, I102

Accidents-F146

Accreditation-CB3, B104, F129, F138, F157

Accuracy-H4, A18, A38, A73, B17, CB3, F41, G10, G23, G29, G32, H32, L71, A120, A130, B109, B110, B160, I136

Activism-A60

Activity Level-CB5, W13

Activity Level Reporting-B77

Addiction-J3

Admissibility-C5, G8, G9, F44, G34

Adolescent-H36, I58

Adoption-Y32

Adult Age Estimation-A105

Adulterant-B64

Adulterants-B56, Y12

Adults Age Estimation-H35

Advocacy-A60

Age Assessment-D26, E13, H31, H33, H37, A103, A104, A107, A130, A131

Age Assessment Procedure-H31

Age Estimation-H3, B15, H32, H36, Y46, A100, A102, A106, A109, A110, A133

Age Progression-A151

Age-Associated Bone Loss-A101

Aging-B24, A108

Alcohol-Y5, J26, L34

Algorithms-B177

Alternative Matrices-L69

Amino Acids-F2

Ammunition-B34

Analogs-W7, B22

Ancestry-A112

Ancestry Estimation-A114

Ancient DNA Analysis-B129

Android™-C12

Anesthesia-L10

Animal Abuse-B7, F78, I83, F151

Animal Remains-I113

Antemortem-A145

Anthropology-A1, A2, A3, A5, A6, F5, H8, A11, A23, A24, A26, A29, A30, A33, A37, A40, A42, A49, A53, A58, A60, A61, A69, A70, A71, A78, A84, A94, CB6, F32, Y42, Y43, Y44, Y52, A103, A119, A120, A122, A125, A130, A134, A140, A142, A143, A154

Apple® iOS®-C1, C12

Aquatic-A13

Aquatic Environment-I124

Aquatic Insects-I46

Archaeology-A94, F32, H16

Architectural Design-F171

Arctic-I56

Arson-B66, H17, B114

Art/Science-F40

Artificial Intelligence-C6, C7, C8, A72, A75, B69, C21, C24, D33, D34, D35, D36, D37, F38, H15, H22, Y36, A133, B115, F123, F167, F176

ASB/OSAC-A59, K23, L27, L28

Aspergillus Disseminate-F110

Asphyxia-I56

Asphyxiation-E12, F35, F83, F90, I19, I39, I48, I51, I63, Y18, F109, F126, I133

ASTM 2329-B103

Asylum-G24

ATR-FTIR Spectroscopy-D28

Attorneys-G7, G36

Atypical Asphyxia-I35

Audio-LS2

Audio Video-W14

Authorship Identification-D10, D36, D37

Autofluorescence-B146

Autoimmune Diseases-I3

Automation-A75, B10, B86, C31, D15, B124, F131

Autopsy-G6, I8, Y7, E19, F19, F78, F87, F91, F92, F99, H39, I16, I18, I20, I29, I31, I33, I43, I55, I60, I64, I65, I69, I72, I73, I80, I85, I94, I96, J24, Y58, Y59, F116, F118, F126, F130, F144, F145, I104, I136

Autopsy on a Stillborn Baby-I134

Azide-L55

B

Backlogs-F139

Bacteria-B37

Bacterial Pneumonia-I135

Bacterial Signature-I86

Balkans-E11

Ballistics-F7, B23, LW6, Y30, B153, B157

Bayes' Theorem-G15

Behavioral Science-J25, I131

Benzodiazepine-L20, L62

Best Practices-Y45

BHB-L54

Bias-A3, W1, B74, LW4

Bio-Affinity-F2

Biogeographic Ancestry-Y14

Biological Profile-A77, A106, A114, A115, A134

Biomarkers-A100, I106

Biometry-F124

Biopsy-I135

Bipolar Disorder-J21

Bitemarks-H24, H25, H26, H28, H29, H38

Black Box-K2

Black Box Studies-G29, G32

Black Esophagus-I33

Blood-L17, L27

Blood Alcohol Concentration-L34

Bloodstains-F2, B16, D26, I83, W17, F151

Blow Flies-I109, I111

Blunt Force-D9, A29, F57, I34, I39, A146, F144

Bodily Fluid-B2, B15, B17, B88, B90, B91, L15, Y25

Body Bags-I124

Body Donation-A127

Body Fluid Analysis-B85

Body Mass-A134

Bone-A19, A26, A71, A90, B40, D38, Y33, A107, B126, B128, I119

Bone Biomechanics-A86

Bone Collagen-A17, Y45

Bone Density-A52

Bone Histology-A101

Bone Maceration-A82

Bone Marrow-F105

Bone Metabolomics-A31

Bone Speed of Sound (SOS)-A21

Bone Turnover Marker-Y62

Boundaries-CB1

Brain-I17, I36, I92

Brainwashing-J10

Bromazolam-L61

Bullet-B23

Bullying-I131

Buprenorphine-L37

Burial-A38, Y47

KEY WORD INDEX

Burial Taphonomy-A45
Burn-A44, I40, W23
Burned Human Remains-A14
Burnt Teeth-H12
Butane-I11

C

Cable Ties-I10
Cadaver-CB7, D40, F68, F107, F173
Cadaver Dog-F72
Cadmium-L16, L17
Calculus-L9
Camera-Y2, Y4
Camera Identification-C29
Cancer-I37
Cane-F150
Canine Team-F73
Canines-B34, B99, F10, F71, W19, B163
Cannabinoid Isomers-B120
Cannabinoid Synthase Gene-B47
Cannabinoids-L48, L57, L58, L69, Y10
Cannabis-B19, B20, B25, B47, B69, B71, F99, L19, L58, B172, B174, B175, B176
Cannabis Seizures-B39
Cannibalism-J21
Capacity Development-I127
Carbon Monoxide-I50, I100
Carbon Nanotube-B65
Carbon Quantum Dots-D27
Carboxylesterases-L49
Cardiac Death-I8, I12, I98, F145
Cardiac Fibrosis-I68
Cardiology-I21
Cartridge Casings-Y17, Y53, B142, F100, F103
Case Series-I79
Casework-A2, A11, B66, B76, B82, G16, A122, A123, A125, B111, F159
Catfish-J22
Cause of Death-A5, I5, I9, L3, Y7, A99, F45, F83, I37, I41, I49, I55, I94, Y58, Y60, I107
CBCT-H35
Cell Biology-B147
Census of Medical Examiner and Coroner Offices-F169
Certification-I59, W21, A150, F129
Cesarean Section on Mother Request-F16
Chain of Evidence-C25
Characteristics-I67
Charred Bodies-F114
Charred Body-A15, I61
ChatGPT-C15
Chemiluminescence-Y11
Chemometric Modeling-B122
Chemometrics-D28, K13

Chiari Network-Y64
Child Abuse-H3, CB8, E22, E23, H28, I57, J32, F108, F144
Chile-F141
Chromatography-B25, F74, L13, L15, Y23
Civil Commitment-J19
Clandestine-B123
Classification-A28
Climate-F20
Clone-C11
Cocaine-I57, I78, L59
Cold Case-A64, C17, F60, F61, F115, W22, A124
Collaboration-D18
College Acceptance-B108
Color-H12
Commingled Remains-A16, A87, A88, A92
Commingling-A17, A65, A89, A90, A94, A97, B96
Commission-G12
Community Liaison-F59
Community Safety-E5
Competence to Stand Trial-J13
Composable Schematics-A20
Computed Tomography-I25, I36
Computer Vision-D13
Concealment-F114
Conclusions-K14
Conference-A1
Conformity Assessment-F170
Consensus-H25
Consultation-A125
Containers-B61
Contaminants-B125
Continuity-A121
Conviction-G9, H28
Convolutional Neural Network-H30
Coping Mechanisms-J15
Cornstarch-D27
Coroner-F133, F134, I129
Correctional Settings-J9, J17
Correlations-B177
Cortical Area-A109
Cortical Porosity-A101
Cosmetic Samples-F3
Court-D14, G13, G17, L46, W15, W22, F102
Court-Ordered Mandated Drug Testing (COMDT)-L11
COVID-19-E8, I6, F45, I12, I13, I16, I43, I48, I49
COVID-19 Infection-F46
Cranial Masculinization-A132
Cranial Non-Metric Traits-A20
Cranioetrics-A153
Cranioetrics and Non-Metric Traits-A132
Crash-D2, D22, D25, G10, I77
Credible Judicial Outcomes-E5

Cremains-A149
Cremated Skeletal Remains-B35
Crime-J1, J4, J5
Crime Laboratory-C18
Crime Prevention-E14
Crime Scene Investigation-B8, D1, B15, B53, C15, C21, F31, F43, F59, F70, I30, LS1, LS2, B123, B142, B148, B149, B161, F116, F121, F142, F163, F165, I111, I130
Criminal Justice System-F86
Criminal Sentencing-J14
Criminalistics-B91, Y30, B107, B132, F117
Critical Angle-B155
Cross-Contamination-B61
Cross-Examination-G4
Cross-Reactivity-L20
Crowd Surge-E20
CT Scan-A55, H17, I39, Y44
Culpable Epidemic-F46
Cults-J10
Cut Mark Analysis-A46
Cyber Forensics-C1, C3, C8, C24, C28
Cyber-Dating Abuse-J22

D

DART®-TOF/MS-L21
Data-C2, B66, D33, D34, G30, I70, B109, B115, F131, F132, F169
Data Integrity Verification-C13
Data Standardization-I132
Database-B111
Database Searching-B41
Daubert-G8, G10
Death-D31
Death Investigation-L5, D42, E16, F64, F69, F89, I53, I58, I73, I91, L67, LS1, LW2, Y49, Y60, F126, F128, F132, F140, F142, I101, I107
Decapitation-F149
Decision Making-F70, G26, W17, Y60, A127, B158
Decomposition-A32, A35, A48, B54, F18, H18, I46, I87, Y33, Y57, I108, I112, I114, I115, I124
Deep Learning-A34
Deep Learning Audio-C28
DeepFake-C6, W14
Degradation-I89
Degraded Bone-B38
Degraded Bone and Tooth Remains-B129
Degraded DNA-B136, B137
Delta 9-THC-Acetate-L48
Delta-9-Tetrahydrocannabinol-B71, B176
Dental Age Assessment-H30, H31
Dental Calculus Deposits-H6

KEY WORD INDEX

Dental Comparison-H15
Dental Identification-H3, H7, H14, H18, H20, H33, H37, Y35
Dental Pulp-H5, F106
Dental Radiographs-A105
Dental Resin Composite-H13
Dental Trauma-H2
Dental Wear-A16
Derivative Spectroscopy-B120
Desert-I111
Desiccant-Y61
Design-F136
Designer Benzodiazepines-Y15
Diabetes-Y64
Diabetic Ketoacidosis-I33
Diagnosis-I27, I57, I98, Y58
Diagnostic Delay-I7
Dice-F122
Diet-A98
Differential Diagnosis-B161
Differential Extraction-Y65
Digital Evidence-C1, C5, D1, G6, K1, Y1, Y2, Y4, C12, C17, C18, C19, C25, C26, C29, C30, G36, K15
Digital Forensics-Y3, W14
Digital Penetration-Y24
DIP-STR-Y14
Direct Analysis in Real Time (DART®)-B28, B30, B116
Direct PCR Amplification-B81, B90, B93
Disaster-E18, F63, F68
Disaster Victim Identification-B45
Discretion-CB1
Discriminant Analysis-A79
Disease-I38, I91
Dismemberment-A53, F59, I25, LW5, A143
Diversity-A1, A4
DNA-B4, W9, A26, A91, A96, B10, B18, B40, B48, B75, B86, B94, F29, F53, F54, F60, F63, G37, G38, G39, I40, I45, I83, W23, Y52, Y57, B128, B132, B142, B148, F147
DNA Extraction-B36, I47, B125
DNA Methylation-B92
DNA Mixture-G37
DNA Preservation-B144
DNA Profiling-B83, B147
DNA Purification-B124
DNA Recovery-B3
DNA Transfer-Y55
Document Analysis-K3, K5, K8, K9, D34, F91, K10, K11, K15, K18, K22, K24
Document Examination-K6
Dog Bites-I29, B162
Domestic Violence-E9, F57, F88
Doping-L40
DPAA-A97
Driver Behavior-D23

Driving Under the Influence-I76
Driving Under the Influence of Alcohol (DUI)-L7, L36
Driving Under the Influence of Drugs (DUID)-L7, L36, L56, L57, L59, L60, L61, F102
Droplet Digital PCR-I84
Drowning-F25, I50, I62, I66, I90
Drug Abuse-I8, Y8, F69, I41, I43, L10, L12, A100
Drug Analysis-C4, F8, Y5, B30, B60, B63, F35, I72, L33, L70, L71, W10, Y10, Y16, Y21, Y23, Y54, B107, B110, B119
Drug Checking-Y9
Drug Chemistry-B56
Drug Classification-B122
Drug-Drug Interaction-B26
Drugs-L9, F11, J28, L32
Drugs on Mail-Y21
Drugs on Paper-Y21
Dry Vacuum-B3
Ductus Venosus Agenesis-I134
Dura Mater-F9
DWI-F33
Dye-F94
Dyes-B58, B67

E

Early PMI Estimation-F105
EC-SERS-L21
ECM-D6
Edibles-Y11, B172
EDR-D23, D24
Education-E1, F4, W6, B53, E11, F21, G28, H23, L42, W10, A128, B108, F153, F154, F155, F156, F158, F160, F163, F167, F174, I125
Egg and Nestling-F79
Elder Abuse-A52, E13, F55, F56, F57, I35
Elderly-F119
Electric Scooter Accidents-F13
Electropolymerization-B65
Elemental Concentration-A82
ELISA-L20
Emergency-E3, F47, L37, F169
Enamel-H8
Engineering-D5, D17, D38
Entomology-I45, F101, I110, I112, I113, I115, I130
Environment-F24, Y53
Environmental DNA-B145
Epigenetics-A108
Equestrian-F152
Equipment-F136
Error Rate-K2, D14, F72, G30, G31, B103

Ethanol-L38
Ethics-S2, A61, A62, A65, F64, G16, J17, LS4, Y42, Y43, F173, F176
Ethnicity-H11
ETP-D31
Evaluation-I48, W13, W16, F157
Evidence-G5, D11, F82, G26, W15, F142, F151, F153
Evidence Evaluation-B1, B82, Y53
Evidence Examination-B75
Examination-E7, B12
Examiner-G36
Exclusion-B51
Exhaled Breath Condensate-L58
Exhumation-A9, CB6, F32, F65, F97
Experimental Research-A50
Expert Testimony-G4, W4, B77, D20, G11, G14, G17, G18, L68, F155, F157, F165
Explosion-B29, C10, B106, B163
Exposure-F25
Exposure Mitigation-B68
Extended Writing-K4
Extraction-B86, B174
Extrasutural Bone-A20
Eye-F124
Eye Tracking-F70

F

FAAS-L16
Fabric-B2, B3
Facial Identification-A8, A72, A74, A75, B94, C31, F38, F41, F123
Facial Reconstruction-A73, B44, F40
Facial Shapes-A8
Failure Analysis-D3, D7, D42
Faint-J2
Fall From Height-D9, D21, F15, I28, I54
False Allegation-F108
Families-F89, A150
Fatal Death-I74, L12
Fatal Hemorrhage-I30
Feature Detection-F39
Feline-Y62
Fellowship Training-J13
Femicide-B31, E10
Fentanyl-F1, L8, B33, B55, B62, F94, L30, L60, L62, L70, W19, Y19, B117, B118, B119, B121
Fentanyl Toxicity-CB4, I128
Fetal Venous Malformations-I134
FGG-B95
Fibers-B67, B166, B167
File Carving-C26
Filicide-F120
Fingernail-Y29

KEY WORD INDEX

- Fingerprint-F6, F8, B24, D15, D28, F20, F24, F29, B160, F165
Fingerprint Identification-F17
Fingerprint Residue-F23
Fire Debris-B111
Fire Debris Analysis-C4, D32, Y20, B112
Fire Fatality-I100
Fire Investigation-W2, A15, F74, B114
Fire-Death Scenario-F75
Firearms-F77, F85, LW6, Y17, A148, B101, B109, B154, B156, B157, F100, F103, I101
Fireworks-I34
Flow Cytometry-B16, F22, B146, B147
Fluorescence-B164
Footprints and Footwear-F43
Footwear Evidence-D15, LW1, Y51, B171
FORDISC®/Ancestrees-A153
Foreign Objects-I104
Forensic Podiatry-F42
ForenSeq™-B139
Forensic-F88, F89, I82
Forensic Analysis-C7, W3, A10, B70, B89, E23, F48, F74, I24, I27, I29, I88, I94, J23, J24, J35, LS2, W19, A124, B100, B159, F112, F117, F118, F119, F163, F172, I102, I103, I106, I117
Forensic Anthropology-A14, A19, A21, A34, A46, A47, A51, A62, A89, F37, F58, F73, A110, A114, A115, A116, A126, A147, A151
Forensic Archaeology-A9, A10, A95, F30, F65, F67
Forensic Art-F40
Forensic Audio-C11
Forensic Biochemistry-I93
Forensic Dermatology-F50
Forensic DNA-B1, B8, W1, B11, B13, B37, B44, B51, B73, B74, B76, B79, F31, F86, G14, G16, G40, W13, Y13, Y29, Y33, Y34, Y61, B126, B130, B134, B136, B140, B143, I116, I125
Forensic DNA Analysis-B35, B46, B77, Y28
Forensic DNA Contamination-Y55
Forensic Document Examination-K23
Forensic Engineering-D19, E20
Forensic Entomology-I46, I108, I109
Forensic Epidemiologist-I70, F135
Forensic Excavation Methods-F65
Forensic Genetic Genealogy-B98
Forensic Genetics-F58, B129
Forensic Geology-B145
Forensic Imaging-Y1, C10, I23, Y59, F104
Forensic Investigation-C2, J7, I19, I28, Y37
Forensic Investigative Genetic Genealogy-B97
Forensic Library-G13
Forensic Markers-B52
Forensic Medicine-F14, F162
Forensic Nurse-E4
Forensic Nursing-B1, E1, E3, E5, E6, E8, D38, E11, E12, E13, E14, E15, E16, E17, E18, E19, E22, G35
Forensic Odontology-H1, H6, H10, H17, H19, H21, H22, H24, H25, H32, H36, H38, Y35
Forensic Oversight-G12
Forensic Pathology-W5, A99, I30, F115, I127
Forensic Podiatry-F43
Forensic Professionals-J15, J35, Y40, F113
Forensic Psychiatry-J8, J9, I24, J13, J17, J20, J24, J30, J35, Y36, Y39
Forensic Psychology-J27
Forensic Radiology-W5, A68, F105
Forensic Science-A8, B4, F4, I9, S2, W6, B12, B50, B53, B80, B87, C15, C21, F12, F21, F39, F61, G27, G28, G31, H23, I14, I20, I31, I71, I81, I87, J25, J30, K22, L33, LW6, W16, Y30, Y48, B125, F111, F113, F137, F153, F154, F155, F156, F160, F161, F164, F168, F174, F177, I105, I110, I126
Forensic Significance-A45
Forensic SNP Genotyping-B49
Forensic Soil Analysis-B169
Forensic Swabs-Y65
Forensic Toxicological Screening-L1
Forensic Toxicology-L5
Forensics Audio-C28
Forgery-D12, K12, K15, K20
Formalin-Fixed-B43
Fracture-F5, A49, A51, Y18, A129, A146
Fracture Histomorphology-A144
Fracture Patterns-A86
Fractures-A52
Fragments-A9, A24, B29
Fraud-K19, K20, LW3
Frostbite Death-I99
Frye-D20
FTIR-F76, L42, A136
Fungus-F18
Furanocoumarin-B26
- G**
- GABA-L38
Gas Chromatography/Mass Spectrometry-B64, D32, Y20
Gas Chromatography-B21
GC/MS-B152, H1, L24
GEDmatch-B98
Gel-Y41
Gender-F124
Gender Gap-G19
Gender Medicine-G19
Genealogy-F53, F61, G17, W22, F147
Genetic Algorithm-D21
Genetic Analysis-B5
Genetic Ancestry-B96
Genetic Identification-B35
Genetic Markers-B39
Genetics-B14, B89, F31, F53, F92, I85, F147
Genotypes-B50, Y34
Geographical-F161
Geolocality-H10
Geoprofiling-A83
GIS-C3, A66, F30, Y47, A156, F125
Global-S1, F79
Grants-F168
Grapefruit-B26
Graphite Furnace Atomic Absorption Spectrometer (GFAAS)-F3
Graphology-J30
Green Chemistry-L64
Ground Penetrating Radar (GPR)-A95
GSR Prevalence-B151
Gun Test-I103
Gunshot-A54, A56
Gunshot Residue-B70, F76, I61, Y27, B106, B150, B151, B157, F100, F103
Gunshot Trauma-A55
- H**
- Hair-B95, L11, L25, L26, L70, L71, Y29
Hair and Nails-A85
Hallucinogens-B32
Handguns-LW7, I103
Handwriting-K1, K2, K3, K8, D17, J23, K16, LW4
Handwriting Identification-D13
Handwriting Speed-K4
Handwritten Signatures-K6
Hanging-F12, I32, I63, I65, B161, F143, F177
Hanging Mercury Drop Electrode-L17
Harmonization-G3
Head Trauma-D3, D7, I4, I32, I74, Y39
Headspace Solid Phase Microextraction-B65
Health and Wellness-J16
Health Care Workers-G22
Heart-I38
Helmet-F13
Hemp-B20, B27, B39
Hexahydrocannabinol-L47
High Reliability-W20
Hispanic-H33
Hispanic-Serving Institutions-A4
Histological-I13, I14, I25, I38, I72, I87, I90, I91, L39, A103, I133
Historical Case-LW3
-

KEY WORD INDEX

Homelessness-I5, J19
Homicide-G6, A44, CB6, F27, F51, F60, F87, F93, I15, I26, I37, I53, I60, I78, I95, Y18, A129, B162, F122
Homicide in Family-F120
Homoamphetamine-L65
Honey Bees-I41
HPTLC-B32
HS/GC/MS-Y5
Human Biological Variation-A113
Human Body Displacement-F80
Human Cadaver-B43
Human Decomposition-A34, A126
Human Factors-B74, E20, G39, G40
Human identification-A45, B36, H13, H15, A133
Human mtDNA and Bacterial DNA-I84
Human Palate-H11
Human Remains-A6, A7, A10, A22, A35, A41, A43, A48, B48, B96, CB7, F62, F67, I71, Y22, Y35, A124, A139, A152, B126
Human Remains Detection-F73
Human Rights-A65, G25, J18, Y49, A154, A156, F140
Human Spaceflight-LS3
Humanitarian-A97
Humanitarian Forensic Medicine-F49
Humanitarian Forensics-A87
Humerus-A92
Hurricane-A39
Hybridization Capture-B95
Hydrogen-B21
Hydrogen Sulfide-D31
Hyperthermia-I68
Hypothermia-F56

I

ICC-F98
ICD-I21
ICODD-B99
ICP/MS-B175
Identification-A7, A64, A84, A91, B50, C28, F49, F67, H19, I88, K10, A147, A155, F107, I123
Identify-A3, F62, A122, A131, B154, B159
Identity-F158
Ignitable Liquid-B113
Ignitable Liquid Detection Canine-Y20
Illegal-F69
Image Stream Hashing-C13
Imaging-Y2, Y4, A72, C20, F44, H16, I92, J34, K10, B154
Immunoassay-B33, B92, L23, L33, B118
Immunohistochemical-F51
Immunohistochemistry-F9

Impaired Driving-L34, L43, L60, L61, B173
Impairment-L56
Implementation-F170
Impulsivity-J1
Imputability-G20
In-Custody Death-CB2
Incineration-A44
Inclusion-A11
Inconclusive-G31
Indigenous-A66, F27, Y49
Individual Characteristics-K4
Infant Death-I28, I59, I69, I95, A145, F148, I121
Infection Disease-F110
Inhalant Abuse-I11
Inhalation Injury-I100
Inherent Fluorescence-F23
Injury-D39, D40, D41, F95, I17, I31, I74
Injury Patterns-F13
Injustice-LW3
Ink-F6
Ink Analysis-K9, K13
Innocence Project-University Collaboration-G21
Innominate-A106
Innovation-D18
INNUL-B38
Insanity-J3
Insects-I45
Insurmountable Fear-J6
Interdisciplinary-C3, E1, D17, E21, I61, LW2, A128, F125
International-F47, F113, F161
Interoperability-I132
Interpretation-W2, W9, G14, B112, B131
Intestinal-I104
Intimate Partner-E4, E9, F82
Intimate Partner Violence-E10
Intoxication-L4, L6, J32
Investigative Genetics-B41
IoT-C23
IPEDs-L40
Iris Biometric-F107
Isomer-L32
Isotopes-A82, A83
Isotopic Taphonomy-A85
Istanbul-Turkey-F171
IZCT-J2

J

Jail-I44
Janovsky Color Test-Y15
Joseph James DeAngelo-B97
Judge-G8, G26, L68
Judicial-CB1, G28, L68

Justice-G5, S2, W4, G27, G35, J20
Justice for All-G2
Juvenile-J34, A118

K

Ketamine-L56, L67
Ketoacidosis-L54
Kinetic Model-D32
Kinetics-L38
Known Hash Set Filtering-Y3
Kratom-L53, L63, Y16

L

Labetalol-L65
Laboratory-F137
Laboratory Improvement-L64
Laboratory Infrastructure-F139
LAMP (Loop Mediated-Isothermal Amplification)-Y63
Laser-A22, A93, L26
Latent Fingerprint-D27
Latent Prints-F23, F85, G32, Y17, B105, B158, B159
Latin America-A150
Law-G27
Law Enforcement-CB8, LS1
Law Enforcement Training-F37
Lawyer-W15
LC/MS/MS-L47, L72, Y12
LC/QqQ/MS-L50
Lead-F3
Legal Age Thresholds-H30
Legal Approach-H2
Legal Research-G1, G13, G18
Legislation-CB4, I128
LFI-B2, B90
Light-K7
Linguistics-D13, D33, D36
Lip Prints-H9
Liquid Chromatography-B63, L19, L29, L30, L31, L73, Y54, B172, B176
Locus Abundance-B42
Long Bones-A55, A56
Lot Variation-B42
Low DNA-B48, B81, Y31, Y34, B131
Low-Template-B124
LSD-B32
Lymphoma-I18

KEY WORD INDEX

M

M-Vac-B84
Machine Learning-W3, A69, A77, C28, D11, D37, A104, A131, A137, A144, F164
Macromorphoscopic Traits-A111
Major Trauma-I22
Mandible-A117
Mandibular Morphometry-A79
Manner of Death-A49, G34, I44, I64
Marijuana-B27, L43
Mass Disaster-H7, L4, H21, Y22, I123
Mass Fatality-A6, F47
Mass Graves-A87, A88, A91, A95, A96, A98, A99, A149, I123
Mass Murder-Y38
Mass Spectrometry-B19, B22, B28, B59, B60, B63, B68, L18, L32, L42, Y27, B116, B117, B121, B174
Massively Parallel Sequencing-B46
Materials-H14
Mauling-I73
Maxillary Sinus-F104
MDCT-C11
MDMB-4en-PINACA-I79
Means of Death-I132
Measurement Uncertainty-A27
Media Bias-Y37
Medical Education-F162
Medical Examiner-F54, G34, L35, F133, F134, I129
Medical Liability-I9, F36
Medicolegal Controversy-G19
Medicolegal Death Investigation-F35, F66, F90, F91, F92, F93, I63, LS3, A155, F127, F128, F129, F130, F133, F134, F148, F149, F152, I126
Medicolegal Death Investigator-J16
MeeGo-C27
Memory Acquisition-C23
Meningitis-F36
Mental Assessment-J8, J12
Mental Health-I6, W4, G24, J11, J12, J14, J18, J19, J29, J34, LS4, W18, Y40
Metabarcoding-I118
Metabolic-I80
Metabolism-L49
Metabolite-L29, I120
Metabolomics-I122
Methadone-I81
Methemoglobin-F26
Method Development-C4, I66, L14, L18, L64, Y12, A104
Method Validation-B20, C25, D10, L25, L69, Y46, Y56, A102, A105, A112, A135, I110
Methods-A76, K14
Methylation-A108

Metric Analysis-D12
Metric and Morphological Data-A81
Micro-CT-F159
Micro-RNA-I82
Microbial-A32, F24
Microbiology-F29, F96, Y57, I116, I117, I121
Microbiome-B9
Microbubbles-Y28
Microcontrollers-C23
Microfluidic Biochip-Y63
Microscopy-D30, F76, I13, I15, I53, B156, B166
Microsomes-L48
Migrants-F25, F48, F58, A155, A156
Migration-A83
Mikrosil™ Casting Putty-F17
Military-J20
Mineral Identification-B165
Minor-J4
Miracle Mineral Solution-F26
MiRNA-B85
Misclassification-A135
Missing Person Case-Y37
Missing Persons-J7, A63, A64, A66, F27, F64, G25, Y28, A151, A152, F125, F141
Mitigation-B163
Mitochondrial DNA-B7, B14, B137
Mitragnine-L53, L63
Mixture Analysis-B18, G38, Y13, Y56, B130, B133, B143
Mixture of Pollen Grains-F22
MNI-A89
Mobile Device-C16, C19
Mobile Device Forensics-C27
Mock Evidence-B168
Mock Pickpocket Scenario-B78
Modeling-B94, D14, L41, B141
Morgue-F136
Morphological Analysis-B5
Morphological Histological Changes-H5
Mortality-A5, I97
Mortar-I34
Motor Vehicle-D5, Y1, A51, D41, I76, F145
Motorcycle-D40
Mouse Scavenging-A43
Mouthwash-I86
MRI Scan-A73, B44
Multi-Omics-I119
Multiband Imaging Methods-F49
Multidisciplinary-A7, F66, I95
Multidisciplinary Approach-F114, F115
Multimedia-C6, D8, C20, F160
Multiplex Amplification-B46
Multiplex RT-PCR-B49
Multivariate Mixture Model-F22
Multivariate Osteometric Analysis-A28
Murder-F7, J6

Muscle-I122
Myocardial Infarction-I65
Myocardial Interstitial Fibrosis-I68
Münchhausen Syndrome by Proxy-J32

N

National Security-C24
Natural Language Processing-D35
Natural Variations-K6
Neck Injury-I62
Neglect-F56, F119
Neonatal-L8
Neural Network Model-A81
Neuron Specific Enolase-I52
Neuropathology-F36, I17, I92, I96
New Jersey-F33
New Psychoactive Substances-L1, L47, L52
Next Generation Sequencing-B45, B85, B133, B134, B135, B136, B137, B138, B139, B140, B141, B145, I117, I121
NFLIS-I129
Nitazene-B64
Non-Fatal-A54
Non-Metric Cranial Traits-A113
Non-Sperm Cells-B93
North Dakota-I108
Not Guilty by Reason of Insanity-J21
Novel Psychoactive Substances-Y8, B59, L18, L50, L65, L66, W10, Y19
Novel Synthetic Cannabinoids-B122
Novel Synthetic Opioids-L2, Y9, B22, L73
NPS-L51
NSRL-Y3
Nurse-I42
Nursing-E2, E19
Nursing Homes-I35

O

Obstetrical Violence-F16
Occupational Incidents-E15, I67
Odontology-H27
Odor-B54
Omics-I120
OPD-A109
Opioid Epidemic-B62
Opioids-Y6, A19, F11, L22, L23, Y54
Optimization-D21
Oral Fluid-L11, L23, L57, L59
Oral Microbiota-I88
Oral Pathological Conditions-H9
OSAC-G2, G3, A59, F71, B101, B102, F172, K23
Osteoarthritis-A110
Osteometric Analysis-B38

KEY WORD INDEX

Osteometrics-A116
Osteometry-A115
Outdoor Surface Contexts-A138
Outreach-A123
Outsourcing-F139
Overdose-L3, Y9, CB2, L52, Y19
Oxycodone-F11

P

Paint-B170
Pair Matching-A18, D16
Palm Tree-F28
Pandemic-E9
Paradoxical Undressing-I99
Parricide-F120
Particle Correlated Raman Spectroscopy-B168
Patent Foramen Ovale-Y64
Pathology-A12
Pattern Evidence-G29
PCR-B7
PCRS-B169
Pedal Evidence-F42
Pediatric-E4, E23, I15, I49, I55, I80, I81, I97, L74, I107
Peer Review-F175
Penile Torsion-I105
Pens-F150
People of Color-F50
Permanence of Lip Prints-H9
Persistence Post Laundering-B6
Personal Characteristics-B49
Personal Identification-A68, F42, H22
Personality Disorder-Y38, I131
Pesticide-I1, I109, F87
Phases of Spaceflight-LS3
Photogrammetry-D6
Photography-LW1
Phthalates-L24
Physical Assessment-I75
Plant Fragment-B57
Plastic Deformation-A13
Plastics-I133
Platinum Chloride Microcrystalline Test-Y15
PMI-I118
Poisoning-L37
Polarized Light Microscopy-B167
Police-B150
Police Peer-Support Programs-W11
Police Violence-F95
Polydrug-L8
Polymer Coatings-B55
Polymers-K18, B164
Population-I5
Population Affinity-A111, A153

Pornography-J31
Pose-C31
Positive Identification-F6, H4, A67, A69, A70, H20
Post-Conviction DNA Testing-G21
Post-Traumatic Stress Disorder-G24, J15
Postmortem-I23, L14, L43, L52, L53, L54, L55, L66, L67, L73, L74, Y10
Postmortem CT-I22, I135, I136
Postmortem Imaging-W5
Postmortem Infant Identification-I105
Postmortem Interval-A31, A32, A33, A35, A36, A37, A38, A39, F96, H5, I82, I89, A136, A137, I113, I116, I119, I120, I122
Postmortem Redistribution-L5
Postmortem Toxicology-L35
Posttraumatic Survival Time (PTST)-A144
Practitioner Preferences-A76
Pre-Crash-D23
Predatory Journal-F175
Prediction Models-F46
Pregnancy-D41, I14, I60
Preservation-A22, A25, I130
Prevention-I98, J33
Printing-K5, K18
Prior Probability-G15
Prison Death-I44, J28, F177
Probabilistic Genotyping-B51, F52, Y50, B130, B131, B132, B133
Probability-K17
Process Mapping-F132
Professional Liability-F14
Professional Responsibility-I7, E12, B105, F175
Proficiency Testing-F138
Profiling-B119
Projectile-A57
Propofol-L10
Protein-I89
Proteins-B91, F106
Proteomics-B88
Pseudogene-B47
PSI-MS-Y16
Psychiatric Patient-G20
Psychoactive Fungi-B5
Psychological Behavior-J1, J3, J7, J8, A80, J23, J25, J26, J33, Y38
Psychological Health-F16
Psychosis-J5
Puberty-A118
Public Health-F99, I70, L41, F135
Puerpera-F110
Pulmonary Artery Rupture-I3
Pulp Narrowing-H35
Putrefaction-I93
Python-A16, A88

Q

QCM-B55
Qualitative-F158
Quality-F20
Quality Assurance-G1, W9, CB3, L46, B149, F138
Quality Control-D12
Quality Management System-G40
Quality Procedures-B151
Quantitative Evidence-LW1, Y31, B171
Questioned Documents-K3, K5, K7, K8, K11, K12, K13, K14, K16, K19, K20, K21, K24, Y41

R

Radiology-H14, H39, A107
Raman Microscopy-K9, B69, B166
Raman Spectroscopy-F8, A21, B60, Y27, B165, B169
Rap-Y26
Rape-E21, F98
Rape and Murder-J2
Rapid-C30
Rapid DNA-B127, B148
Rapid Drug Screening-F1, B28, B30, B33
Real-Time PCR-I84
Rear Impact-D2, D3, D7, D42
Recidivism-J29
Reconstruction-C9, D22, D25, F34, F141
Recreational Boating-I50
Reed's Typology-J27
Reference Material-K21
Refugees-H37
Regulation-G5
Regulatory-G12
Reliability-W1, A18, A36, G30, G38, G39, H26, B160
Religion-I71, LW7
Remains Recovery-A138
Report Writing-D20
Research-E21, F68, F154, F166, F168, F173
Residency Programs-F162
Resilience-W11
Resiliency-W20
Respiratory Failure-F19
Restraint-F14
Retention-F131
Retrospective Study-F102, F122
Reverse Complement PCR-B138
Rib-A102
Ricochet-B155
Risk-W20
Risk Assessment-I4, J31
Road Traffic Accidents-L36

KEY WORD INDEX

Road Traffic Deaths-L7
Robotic System-B11
Rural Communities-E3, A63

S

S100B-I52
Safety-J11
SailfishOS-C27
Saliva-B13
Sample Preparation-B152
Sample Storage-B54, L13
Sampling-B75
Sanger Sequencing-B135
Scanning Electron Microscopy-F15, B150
Scavengers-I114
Scavenging-A39, A40, A41, A42, A139, A140
Scene Investigation-I1, F90, I51, I64, F128, F130, F143, F148
School Shootings-W18
Scientific Evidence-H29, LW2
Scientific Foundation-G37
Score Likelihood Ratios-B79, CB5
Search and Recovery-A141
Second World War-A149
Segment Decomposition-K17
Seized Drugs-Y8, B21, B59, B68, B100, B103, B118, B123
Self-Strangulation-I10
Semantics-D35
Semen-B8, B17, L72, Y25, Y56
SEM/EDS-H13
Sensor Dog-F72
Sentencing-G18
Separation-B25
Sequencing Artifacts-B139
Serial Killer-I42, J27, Y32, F117
Serology-B73, B89, B92, Y13, Y25, I125
SERS-B117
Service Learning Social Justice Law Project G21
Sex Assessment-A80, A118, A119, A120
Sex Estimation-A76, A77, A79, A81, A116, A132
Sex Offender-E2, F55, Y26
Sexual-F88
Sexual Abuse-J10
Sexual Assault-B9, B87, B93, Y24, Y65
Sexual Assault Kits-Y61
Sexual Crimes-E2, E6, E7, J4, B10, B12, B13, B88, CB8, E17, F78, G35, J31, Y26, Y48, F171
Sexual Dimorphism-A78, A117, A119, F104
Shaken Baby Syndrome-G7
Sharp Force-A53, I54, F121

Sharp Force Trauma-A143
Sharp Injury-F15
Sharpie®-Y55
Shoeprints-Y51
Shooting Reconstruction-B155
Shootings-W17
Short Tandem Repeats-B52, B135
Shotgun-F116, F150
Shotgun Defect-A57
SIDS-I59
Signature Identification-K1, K12
Simulation-D4, F127
Single-Cell Data-B143
Single-Cell Genetics-B41
Single Synthetic Fibers-B58
Skeletal Remains-A31, A58, A90, A93, B36, B40, F66, W23, Y42, Y43, A121, A127
Skeletal Trauma-A57, A129
Skid Marks-D6
Skin-I27
Skin Cells-B83
Skull-A80
Smart Phones-C29
Smokeless Powder-B152
SNP-B134, B144
SNP Genotyping-B98
SNP Multiplex-B45
SNPs-B42
Social Dangerousness-G20
Social Justice-A63, LW7
Social Media-A61, C16
Sodium Chlorite-F26
Soft Tissue-A43, A74
Software-C2, H4
Software Testing-C26
Soil-L9, F18
Soil Analysis-A96, F96, B168
Solid Phase Extraction-Y6, F94
Solid Phase Microextraction-F10, B113
Spanish Speakers-A4
Spatial Modeling-F30, A141
Species-L39
Spectral Library-B165
Spectrogram-D11
Spectrophotometry-H12
Spectroscopy-L2, W3, A93, D26, L26, B170
Speech Processing-C28
Spleen Rupture-I18
SPME-GC/MS-F101
Sport-L40
Stabbing-D29, F34
Stable Isotope Analysis-A25, A84, A85, H10, Y45
Stable Isotope Ratio Analysis-A17
Stable Isotopes-A23, A24
Stages of Decomposition-F17

Stamping Devices-K11
Standards-G1, G2, G3, G4, W2, W6, A59, B73, C19, C20, F41, F71, G11, G25, H23, H24, H38, K21, K22, K23, K24, L46, W12, A142, B100, B101, B104, B105, B106, F170, F172, F174, I126
Standards Development-B102
Standards Implementation-B102
Standards of Care-H27
Starvation-Y62
Statistical Analysis-A92
Statistical Shape Analysis-A117
Statistics-E6, E8, B14, B62, B79, D10, G15, I97, K16, K19, W16, B110, B115, B121, B170, B171, F164
Stature-A98
Stature Estimation-A112
Steganography-C8
STEM-B108
Stereolithography-D19
Stimulant-L51, L66
STR-B4, Y48, B144
STR Analysis-B78
STR Profiles-B6, B80
STR Typing-B43
Strangulation-F82, I19, F109
STRbase-B52
Stream Hashing-C13
Streptococcus pneumoniae-Y63
Stress-J16, Y40
Striations-D29
STRs-B127, B141
STRSeq BioProject-B140
Structural Violence-A147
Structural Vulnerability-A62
Student-S1, F167
Subadult-A78, I75, Y52
Subway-F146
Sudden Cardiac Death-I85
Sudden Death-I3, F19, F97, I12, I20, I21, I23, I36, I69, I78, I106
Sufficiency-B112
Suicide-I6, L6, B70, F45, F93, F146, I24, I32, I51, I54, I58, I62, J22, J33, A148, F109, F118, F149
Surveillance-C9, B56, J28, F135
Survey-A2, F4, C18, F21, Y47, F156
Survivors-E10
Swab-B113
Swabbing-B87
Swallowed-H27
SWGDRUG-B107
Synchrotron Radiation X-Ray Fluorescence Analysis (SR-XRF)-B57
Synchrotron Radiation X-Rays-B58

KEY WORD INDEX

Synchrotron Radiation-Based Micro-Computed Tomography-A86
Synthetic-L51
Synthetic Cannabinoids-L50
Systemic Review-H6

T

Tandem Mass Spectrometry-B27, L22, L29, L30, L31, B177
Tape-B81
Taphonomy-A13, A25, A30, A33, A36, A37, A40, A41, A42, A46, A47, D29, I47, A126, A128, A137, A138, A139, A140, A141
Targeted Methods-L1
Technology-F137
Technology Transition-D18, F81, F166
Teeth-H2, H8, H16, A135, A136
Temperature Measurement-F75
Terrorism-E18
Tetrahydrocannabinol-L14
Textiles-F34
THC-L31, B173
THCO-L49
Thermal Damage-A15, A47, Y22
Thermocouple-F75
Thin Layer Chromatography-Y41
Thiols-I93
Time of Death-I66
Time Since Deposition-B16, B146
Tissue Analysis-B29
TMA-L16
Tobacco-L72
Toolmarks-F77
Tori-A113
Torture-F48, F50, F51
Total Human DNA Sampling-B83
Touch DNA-B82, B84, F52
Touch Sample-B37, B76, B80
Toxic Metals-B175
Toxicity-I1, L2, L3, Y7, I79, L24, L39, L41, L74, F112, I115
Toxicological Analyses-I11
Toxicology-Y6, I42, L21, L25, L27, L28
Toxins-F112
Trace Analysis-D16, D30, Y31, B104, B114, B116, B164, B167
Trace DNA-B78, Y50
Traffic Accident-C16, I76, J26
Traffic Fatality-L35
Traffic Safety-F33
Train-I102
Training-A123, F127, I127
Training Aid Mimics-B61
Transfer-C30, J11, Y23

Transfer Evidence-F52, Y50
Transgender-F37
Trauma-F5, J6, A12, A29, A48, A54, A56, A58, E16, E17, F97, Y32, Y44, A142, A145, A146, A148
Trauma Analysis-A50
Trauma Interpretation-A50
Traumatic Brain Injury-F9, I52, W11, Y39
Traumatic Life Events-J9, F84, J29
Treatment-J12, J18
Tree Trimming-F28
Tropicamide-L12

U

UHPLC/HRMS-H1
Umbrella Review-G22
Uncommon Suicide Method-I10
Underwater-F81, LW5
Underwater Recovery-F80
Unexpected Death-F83, I77
Unidentified Persons-A23, CB7, F54, A152, A154, B127
United Kingdom-J14
University of Idaho Homicides-B97
Unknown-D39, F62
Unprovenanced-A121
Unsolved-C17, H19
Urine-L28
United States Populations-Y14

V

Vaccine-I16
Vacuum Ultraviolet Detection-B120
Validation-C7, A27, A67, B11, B18, D24, H29, L19, L22, A111
Valleys of Death-F166
Vaping-B19, B71
Variability-K17
Vascular-I4, I96, F121
VCM-B153
Vehicle Speed-D22, D25
Vertebrae-A28
Vertebroplasty-A12
Veterinary Medicine-L6, I112
Vibrational Spectroscopy-A14
Victim Identification-H7, I75, B128, F140
Victim-Offender Relationship-E7, B31
Video Analysis-C5, C9
Viola Jones Algorithm-F39
Violence Against Children-J5, E22, F84, F108
Violence Against Women-B31, E14, F55

Violent Behavior-W8
Violent Deaths-LW5, F111
Virtual Reality-Y36, B149
Visualization-D4
Vital Wounds-B162
Vitreous Humor-L55
VMD-B84
VOC-F101
VOCS-B99
Volatiles-A30, B34

W

War Crimes-F98
War on Drugs-F1
Water-I47
Water-Related Death-F80
Weapon Analysis-F95, I26, W18
Wearer DNA-B6
Weight of Evidence-B158
Wildfire-D30
Wildlife Forensics-F79
Wilms Tumor-I7
Winter-I114
Winter Clothing-I56
Wischniewski Spots-I99
Workplace-E15, I67, LS4
Workplace Violence-G22
Wound-F7
Wrongful Conviction-G7, G9, CB5, F85, F86, G11, H26, LW4

X

X-Ray-K7, A67, A70, B67, F159
X-Ray Absorption Fine Structure Analysis (XAFS)-B57
Xylazine-CB2, CB4, L62, I128

Y

Y-STR-Y24, B138
Yellow Fever Virus-F106
YFSF-S1, Y51
Youth Gangs-F84

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 2024 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	J	Psychiatry & Behavioral Science
B	Criminalistics	K	Questioned Documents
C	Digital & Multimedia Sciences	L	Toxicology
D	Engineering & Applied Sciences	LW	Last Word Society
E	Forensic Nursing Science	Y	YFSF Poster
F	General	CB	Case Break Session
G	Jurisprudence	LS	Luncheon Seminar
H	Odontology	SS	Special Session
I	Pathology/Biology	W	Workshop

A

Abbas, Rami – L40
Abdul Rehman, Rahat – L72
Abouzahir, Hind – F83
Ackley, Craig – W15
Acosta Arias, Bellaniry – Y36, Y39
Adams, Donovan – A61
Adams, Kaitlyn – B82
Adcox, Devin – A56
Adem, Ibrahim – F88
Adeoye, Alexandra – B177
Adkins, Anna – I47
Adkins, Tamela – W15
Adolphi, Natalie – I136, W5
Adserias-Garriga, Joe – A57, S1
Afra, Kamar – F125
Agilar, Savanna – A38
Agnew, Amanda – A146
Ahmad, Nasir – F173, F64
Ahmed, Irfan – C24
Ainsworth, Robin – H21
Akiyama, Cliff – F84
Aksoylu, Elif – H14
Al Oraer, Dina – B14
Alarcon, Briana – L29, L30
Albano, Giuseppe Davide – F48
Al-Baqali, Fatima – F99
Alberink, Ivo – B110
Alexander, Peter – G1
Al-Hetlani, Entesar – D26
Alipour Yengejeh, Amir – F164
Alqabbani, Roa – I34
AlQahtani, Sakher – H32
Amaro, Deirdre – S1
Ambrosi, Laura – F12, F7, F97
Ambrosius, Teresa – W6
Amin, Mohamed – D28, F8
Anderson, Sarah – I132
Anderson, Robert – D23
Antonelli, Lillian – A51
Antonioni, Maria Nectaria – G25
Apiluk, Jidabha – L10
Appel, Nicolle – A122
Appley, Meghan – B28
Aquila, Isabella – A10, E19, F112, F117, F118, F119, I102, I103, I106, I20, I24, I29, I93, I94, J24, J28, J30

Arabio, Alexandra – K17
Aravamudhan, Vipula – L24
Armstrong, Melanie – F147
Arturi, Mattia – I61
Arya, Rhea – B93
Aschheim, Kenneth – H23
Ascolese, Micaela – F169
Auchter, Leah – A78
Aulino, Giovanni – F13, F162, G22
Ayoub, Aabad – J2

B

Baer, Devin – L18
Baer, Erica – A92
Bagsby, Kelly – I112
Baigent, Christiane – A139, A41
Baker, Andrew – G34, I107, L74
Baldari, Benedetta – F109, F111, F121, F126, I133, I14, I87
Baldino, Gennaro – D19, F110, F114, F115, F46, I30
Banks, Emily – F1
Barbaro, Anna – B15
Barney, Lauren – J12
Bartelink, Eric – A141, A59
Bastawros, Ashraf – D16
Battiato, Sebastiano – F160
Battimiello, Valentina – J3
Bayer-Broring, Carolyn – K7
Bedard, Juliette – A66
Bell, Kathy – W8
Benassi, Andrea – I46
Benevento, Marcello – F9
Bennett, Krista – A147
Bentil, Edward – B175
Benton, Madison – I4
Benyagoub, Massinissa – Y7
Berneschi, Giulia – B161, F14, F16
Berry, Jennifer – L58
Bertozzi, Giuseppe – I38
Besse, Micki – A39
Bhaloo, Zain – K21
Bhatt, Sushil – F107, F124, L12
Bhembe, Qhawe – B41
Bianchi, Illenia – H1, H35, H5
Bibey, Haley – L50
Biddle, Keith – A26
Bitting, Casey – I97
Bodo, Leticia – Y48
Bolhofner, Katelyn – A52
Bolte, John – D40
Bonicelli, Andrea – I119, I122
Bonilla, Kaitlyn – L26
Bonn-Savage, McKenna – B80
Boone, Jeremy – S1
Boopasari, Slun – F22
Boorberg, Noriko – H7
Borrelli, Mia – B56
Borrini, Matteo – A115, A46, A47, LW3
Borsuk, Lisa – B52
Bosco, Maria Antonella – I23, I31
Bosman, Ingrid – L55
Bourdage, Brendan – D24
Bow, Jay – Y43
Boyd, Donna – A142
Bradshaw, Brenda – Y35
Breitenstein, Rachel – B6
Braeunle, Jessica – Y6
Brandes, Jett – Y1
Braxton-Walker, Alfredo Eugene – I127
Brendley, Bryan – W17
Brief, Tania – G9
Brisendine, Tracy – F60
Brivchik, Michael – Y22
Brodeur, Amy – B91
Brooks, Connor – F139
Brosz, Helmut – D39
Brown, Katherine – F82
Bryand, Kelsie – F142
Bugajski, Kristi – F155
Burlington, Brett – F144
Bullock, John – LW1
Bunch, Steven – K1
Buratti, Erika – L73
Burgin, Nicole – I101
Burke, Abigail – Y20
Burns, Amber – W10
Burrascano, Giorgia – F110, F114, I30
Buscaglia, JoAnn – G32
Busillo, Ludovica – F55
Butler, John – G37
Buzzini, Patrick – S2
Byrnes, Jennifer – A67

PRESENTING AUTHOR INDEX

C

Cai, Wanyan – B147
Calanna, Luca – F112, F117, F118, F119, I102, I103, I24, I93
Callaway, Cassidy – B43
Campbell, Timothy – K15
Campo, Allison – A94
Caristo, Isabella – I7
Carl, Yonatan – I135
Carravetta, Francesco – I9
Carrillo, Kayli – B124
Carriquiry, Alicia – B109
Carroll, Marla – C20
Caruso, James – I107, W15
Castillo, Abigail – F158
Castro, Katherine – B163
Cavanaugh, Grace – I86
Cavanaugh, Sarah – B98
Cecannecchia, Camilla – F109, F111, F113, F126
Chambers, Taylor – B89
Chandrasekara, Thilini – B146
Chang, Christina – B60
Chang, Christy – H29
Chapman, Erin – A145
Chaski, Carole – D13, D37
Chaudhary, Garima – F86
Chaump, Michael – I79
Chaves, John – J20
Chavez-Esparza, Fatima – L33
Chee-Awai, Amanda – F21
Cheng, Kevin – B133
Cheng, Ya-Chih (Jessica) – B47, L49
Cheng, Yingying – B46
Chepren, Stacey – F149, F152
Cherian, Reba – I50
Chevrier, Isabelle – Y10
Chighine, Alberto – I120
Chitara, Nandini – C21, H22
Chizmeshya, Sydney – A86
Choi, Octavio – J34
Chong, Kevin – B81
Christensen, Joshua – B169
Christiansen, Lyle – F122
Christy, Brenda – B106
Chu, Sarah – S2
Chung, Fang Chun – B12
Chung, Grace – H28
Cianci, Vincenzo – F105
Cioffi, Andrea – F109, F111, F113, F126
Cipolloni, Luigi – F121, I13, I133, I14, I23, I31, I38, I95
Cirillo, Laura – A135
Claassen, Brittany – B151
Clark, Michelle – F54
Clark, Steve – F129
Coberly, Sam – A54
Cohen, Samantha – A45
Cole, Mary – A101
Cole, Stephanie – A118
Colvin, Sasha – B74
Concheiro-Guisan, Marta – L19
Connor, Melissa – F72
Consalvo, Francesca – I19, I28, I71

Conte, Jillian – B73
Corrigan, Mary – L38
Couch, Alleigh – B27
Cox, Billy – D22, D23, D25
Crenshaw, Karin – B142
Crouse, Andrew – C12
Crowns, Lilly – F45
Cukrov Bezbradica, Slavena – B39
Cunha, Eugenia – A131
Cunha, Larissa – B86

D

da Silva, Thiago Augusto – E18
Da Silva lameira, Fernanda – I105
Dadour, Ian – F34, I113, I130
Dahal, Ayusha – A7
D'Angiolillo, Matteo – A44
DAnjou, Corinne – H19
Das, Siddhartha – A79, I52
Dastan, Kadir – B129, B35
Davidson, J. Tyler – B30
Davies, Catriona – A152
Davis, Colin – I53
Davoren, Jonathan – G38
De Alcaraz-Fossoul, Josep – B24
De Cree, Theresa – A58
De Luca, Stefano – A133
De Morais, Joanna – W7
De Simone, Matteo – I19, I28
DeBord, Joshua – B119
Decker, Summer – A68
Dedouit, Fabrice – F150, W5
Del Duca, Fabio – F36
Delaney, Anna – CB6
Delger, Dana – G1
Della Rocca, Chiara – B40
Demasi, Martina – I134
DeNapoli, Juliet – F10
Denn, Max – Y9
DePergola, Olivia – Y18
Depp, Randi – A19
Desiderio, Jr., Vincent – F172, G2, G3
Devlin, Joanne – W23
Di Vella, Giancarlo – I90, J10, J22, J25
Diani, Luca – I25
Diaz, Anelis – A116
Diego, Moro – I95
Dierksen, Jennifer – F127
Dinh, Nancy – B75
Ditto, Emily – F144, F145
Ditto, Phillip – A34
Dogruer Erkok, Sevde – B117
Dombrowski, Annika – B120
Dominguez, Victoria – A109
Domitrovich, Stephanie – CB1
Donald, Bernice – S2
Donato, Laura – A151
Donoghue, Edmund – I77
D'Orazio, Amanda – L56
Douglas, Jarod – I53
Dowdy, Liotta – A83
Downing, Nancy – G35
Downs, J.C.U. – LW7

Drall, Jatin – L16
Driever, Makenzie – B84
Dudzik, Christopher – F33
Dugan, Sean – W8
Duggar, Anna – S1
Duma, Stefano – I99
Dunn, Rhian – A20
Duzioni, Sharon – I3

E

Eaton, Morgan – B127
Ebert, Lars – W5
Eckstein, Robert – F37
Edwards, Carrie – E16, E17
Edwards, Delaney – F5
Eickhoff, Logan – B153
Eidmueller, Madison – Y23
Eldridge, Heidi – B105, B158, B160
Elena, Giacani – I87
Elifritz, Jamie – W5, W11
Ely, Susan – I107
Epstein, Brandon – C5
Eskey, Kim – B42
Esposito, Massimiliano – D1, L4
Estevanes, Jared – B116
Evans-Newman, Kristopher – B122
Evo, Julie – A97

F

Fabian, Zaire – Y27
Fairbanks, Kevin – C30
Fallon, Kim – F69
Faraz, Muhammad Ahmad – Y26
Fatima, Mishaal – F50
Faugno, Diana – W8
Feigin, Gerald – I68
Fenton, Emily – L8
Feola, Alessandro – F120, L36, L7
Fernandez, Kamilah – I37
Ferreira, Sandra – W19
Ferrell, Jamie – E5
Ferrell, Morgan – A77
Fertel, Jennifer – Y37
Fields, Christopher – J21
Filipe, Cameron – B130
Fisher, Barry – LW4
Fisher, David – B108
Fitch, Amanda – F151
Fitzpatrick, Colleen – F63, G17
Fixott, Richard – H24, H38
Flaherty, Erin – I36
Fluty, Larry – W19
Fondebrider, Luis – A150
Ford, Jonathan – W5
Fossum, Janean – E14, E22
Foster, Miriam – B37
Franceschetti, Lorenzo – F49, F56, F58
Francesco, Carpano – I95
Francesco, Prati – I23
Franck, Darren – D9
Franck, Harold – D9

PRESENTING AUTHOR INDEX

Frank, Kelvin – B99
Frank, Matthew – W11
Frasier, Tuesday – A49
Freitas, Corina – J35
Friederich, Laura – L65
Friend, Amanda – A24
Friend, Sadie – A60
Froelich, Noah – B164
Fuglsby, Cami – K2
Fulginiti, Laura – W23
Furton, Kenneth – L15

G

Gadison, Davette – S1
Gallotti, Eugenio Jacopo Piero – I32, J33
García-Castillo, Zoraida – G26
Gardner, Brett – B160
Garofano, Luciano – B144, J7
Garosi, Benedetta – B174
Garvin, Heather – A70
Gasparini, Laura Camilla – B31
Gast, Meghan – A53
Gatewood, Aaron – A40
Gaur, Sanya – J29, J9
Gemmellaro, Denise – F33, I124, I46
Gent, Luke – A108
George, Camilla – H17
George, Rebecca – A90
Geradts, Zeno – C7, C8
Getz, Allison – F170, W12
Ghemrawi, Mirna – B92
Gianluca, Piras – I133
Gill, James – I107
Gillece, Elizabeth – B125
Gino, Sarah – I123
Giovanni, Gurgoglione – I23
Gittelson, Simone – W13
Gitto, Lorenzo – I81
Giuseppe, Rinaldi – I23
Glassheim, Elyssa – I5
Gleiber, Devora – A71
Goding, Kali – F79
Goff, Mark – K24, K8
Goia, Sofia – F159
Gokten Kalkanli, Gozde – F89
Goldstein, Justin – F146
Goliath, Jesse – A63
Gomonit, Munchelou – L22
Gong, Samantha – B168
Gonyea, Jennifer – L67
Gonzalez Morales, Alexa – Y34
Goodman-Williams, Rachael – E7
Goodrich, James – H25
Goodspeed, Beth – F61, S1
Goodworth, Adam – D41, D5
Gottesman, Lauren – G9
Gottfried, Emily – J21
Graf, Paul – CB8, LS1
Graham, Michael – I107
Grande, Abigail – F135, I43
Grassel, John – W12
Grattagliano, Ignazio – J10, J22
Greenspoon, Susan – B10, B132

Gregory, Brianna – Y24
Grgicak, Catherine – B143
Griffin, Nequa – B26
Griffith, K. Scott – W20
Grigoras, Catalin – C11
Grigsby, Anthony – I117
Grinstein-Cohen, Orli – E10
Gross, Jacquelyn – F18
Grosso, Katherine – I53
Grover, Celeste – B104
Groy, Gail – D20
Guarnera, Luca – C6
Guerra Martí, Rosario – A74, H20
Guleria, Ankita – A8, C15
Guo, Xiaosen – B46
Guo, Xiaotang – F70
Gutierrez, Carlos – F141
Guyomarc'h, Pierre – F47

H

Haghandish, Nasim – I80
Hainsworth, Sarah – D29
Hale, Amanda – A27
Halfin, Alfonso – I27
Hamel, Marianne – I60
Hamilton, Sylvia – Y65
Hampikian, Greg – G16
Hamoud, Amir – I40
Hanna, Joanne – I91
Hans, Krystal – S1
Hard, Shelby – A85
Harden, Angela – A50
Harding, Brett – F66
Hardwick, Emma – B22
Haried, John – G5
Harper, Curt – L57
Harralson, Heidi – J23, K3
Hart, Edwin – L71
Hartley, Stephanie – A17
Hartman, Clare – I8
Haser, Christopher – C4
Hassett, Natali – B23
Headen, Olesia – L31
Hennessy, Georgia – A116
Henry, Fernanda – B1, F157
Henson, Kristy – Y42
Herbst, Brian – D2
Heringer, Rodrigo – F100, F103
Hervey, Barbara – G7
Hewitt, Terry-Dawn – G4
Hickey, Charis – F52, Y50
Hicklin, R. Austin – G32, G38
Higgins, Brian – W9
Hines, Daniel – H39
Hobbs, Maryann – A98
Hogan, Kayla – B61
Hogg, Morghan – A22
Holmes, Jeffrey – D11
Hona, Te Wai Pounamu – A73
Hoopes, Lauren – B78, Y14
Horjan Zanki, Ivana – B5
Hornagold, Lyndsey – A132
Hospital, Deen – D31

Houck, Max – F165
Houkes, Abigail – A119
Houston, Rachel – B136
Howe, Julie – F129
Huang, Ting-Yu – B113, B65
Hudson, Victoria – L39
Huestis, Marilyn – L63
Hughes, Cris – A130
Huie, Katelyn – Y53
Hull, Catherine – Y61
Hulse, Courtney – A111
Hunter, Cheryl – S1
Huppe, Genevieve – L34
Hutchinson, Shinelle – C28

I

Iacoponi, Naomi – F15, G19, G20, I11, I12
Iancu, Lavinia – I108, I114, I118
Iannello, Domenicantonio – F46
Ibáñez Panizo, Oscar – A72, A75, F38
Iera, Jaclyn – B107
Indra, Lara – A140
Inman, Keith – S2
Isaac, Carolyn – A144, A69

J

Jackman, Sarah – F24
Jackson, Ami – I70
Jackson, Glen – B59
Jaiswal, Ashok Kumar – L17
Jang, Hyobong – B44
Jarrett, Laird – B114
Jarvis, Hannah – I51
Jason, Alexander – B157
Javan, Gulnaz – H2
Jayaraman, Jayakumar – H33
Jayawardana, Galpayage Dona Thouli – B55
Jensen, Haley – B172
Johnson, Damani – B141
Johnson, Kahlil – J17
Johnson, Neil – C20
Johnson, Paul – CB7
Johnson, Steven – F172, F41
Johnston, Learie – W11
Jones, John – B102, G1
Jordan, Maisy – A46
Juarez, Chelsey – A121
Juedes, Timothy – F20
Just, Rebecca – B95

K

Kabir, Abuzar – L13
Kalafut, Tim – B131, G14
Kalfoglou, Sotirios – F171
Kalfoglou, Ersi – E11
Kalkanli, Ilkay – Y58
Kano, Naomi – E2
Kaplan, Molly – A155
Karschner, Erin – W7

PRESENTING AUTHOR INDEX

Kassie, Olivia – B87
Kasten, Sadie – B21
Kaur, Jagmeet – H9
Kaur, Jasmine – B165, B169
Kaur, Lovepreet – F39
Kaur, Panoram Preet – G27
Keefe, Brayleigh – B4
Keith, Kaylyn – L25
Kenerson, Katherine – L74
Kennedy, Sydney – E8
Kerry, Gemma – B63
Keyes, Kelly – F133, F134, I129, W21
Khan, Kori – G30
Khan, Nadeem-Ul-Hassan – L72
Kibayashi, Kazuhiko – I17
Kidwai, Faiz – J13
Kim, Jaymelee – A62
Kim, Yu-Young – A117
Kimmerle, Erin – A64
Kindler, Abigail – A18
Kindschuh, Sarah – K10
King, Steff – Y49
Kingsbury, Stephanie – K24
Kinn, Megan – I67
Klales, Alexandra – A76
Knittle, Elizabeth – Y41
Köcher, Ginelle – A129
Kollmann, Dana – H16
Kotchey, Joshua – B62
Kotchey, Lindsay – B138
Krishan, Kewal – F42, F43
Kronstrand, Robert – L47
Krotulski, Alex – L62, S1, W19
Krstensky, John – L2
Kulbacki, Kevin – K23
Kumar, Kapil – F3
Kumar, Mukta – G23
Kumar, Rajender – G23
Kunkler, Kimberly – W2
Kurosugi, Suzuha – B57
Kuzmić, Sunčica – B150
Kyriakou, Xenia Paula – A87

L

La Cagnina, Laura – E13
La Russa, Raffaele – I13, I38
La Spina, corinne – I16
Lacey, Douglas – C12
Laetsch, John – B69
LaFleur, Marni – F25
Lambacher, Nicole – A89
Lamberti, John – F59
Lamer, Hannah – B16
Lane, Katherine – A2
Larsen, Jr., A. Karl – W6
Lasater, Marie – CB2
Lattanzio, Nicole – W7
Lauerhass, Audrey – F30
Laveroni, Sierra – B38
LaVoie, Hannah – D32
Lazzari, Julia – B161, G19
LeBeau, Marc – L46, W15

Lednev, Igor – F76
Lee, Hana – Y51
Lee, Jeff Cheng-Lung – F31
Lee, Ji-woo – I84
Lee, Sophie – B134, Y29
Lee, Steven – B53
Legron-Rodriguez, Tamra – F156
Lemos, Nikolas – L74
Lesciotto, Kate – A81
Lewis, Allison – G34
Lewis, Edward Thomas – J21
Lewis, Jason – C16
Licciardello, Fausto – F90
Licciardello, Gabriele – F91, F92, F93
Limoges, Jennifer – W6
Listi, Ginesse – A138
Liu, Yao-Yuan – B139
Livingston, Kristen – A93
Locke, Jonathan – B54
Lockwood, Robert – L14
Loewen, Madison – Y53
Logan, Barry – L43, W7
Long, Nicole – A25
Lopez, Dayanira – A36
Lopez-Escobedo, Fernanda – G18
Lowry, Taylor – F128
Lufekfahr, Ashley – I1
Lund, Steven – B171
Lurie, Ira Saul – W10
Luther, Ashley – W9
Lyle, James – C26
Lynch, Virginia – E16
Lyons, Bertram – C5

M

Macon, McKenzie – A120
Macorano, Enrica – E23
Maher, Robert – LS2
Maheux, Chad – W19
Maiese, Aniello – I96
Makhoul, Calil – A14
Malchow, Andrea – B38
Malone, Christina – C20
Maloney, Katherine – I107
Mammana, Alessandra – F19
Mandarelli, Gabriele – J8
Manta, Anna Maria – F116, F121, I133, I39
Mantl, Nicole – A80
Marcacci, Ilaria – F15, F16
Marchetti, Brenda – F23
Mariasaria, Aromatario – I95
Marinello, Amanda – I59
Marion, Daniel – F40
Marisei, Mariagrazia – H37, J32
Martin, Mikalaa – W1
Martinet, Kristina – B25
Martlin, Britny – F80
Matulek, Hannah – Y47
Matulis, Nina – C1
Mavromatis, Chris – A88
Mavroudas, Sophia – A6
Mazuchowski, Edward – LS3
Mazuca, Wandamaria – A10, F117, F118, I103, I106, I29
McClary, Carl – K14
McClure, Taylor – Y25
McCrane, Samantha – A114
McGrath, Jonathan – W19
McGuire, Megan – Y4
McKay, Jaclynn – B149
McKee-Zech, Hayden – I115
McLaren, Sterling – L74
McLeod-Henning, Danielle – F137
Medeiros, Alexandra – I104
Medina, Michelle – W15
Meena, Rakesh – K6
Mehman, Alexa – B64
Melancon, Kathryn – I45
Melerine, Leilah – A35
Mellendorf, Tempest – A33
Melson, Ken – W15
Mendel, Julian – I83
Mendoza, Jorge – D4, D8
Menendez, M.J. – CB4, I128, L68
Mercuri, Roberta – I10, I35
Messersmith, Hannah G. – A153
Metcalf, Jessica – I116
Mezzetti, Eleonora – B70, I12, I78, I98
Michaud, Katarzyna – S1
Michel, Aizlynn – Y21
Middleberg, Robert – L74
Midiri, Mauro – F177, I22
Miller, Kiana – A37
Miller, Kyra – F106
Miller, Mackenzie – Y38
Miller, Marilyn – S1
Miller, Raymond – H27
Millette, James – D30
Milligan, Colleen – A123
Mills, DeEtta – B7
Minetz, Jolen Anya – A28
Ministeri, Federica – I21
Miranda, Michelle – S2
Miranker, Molly – A156
Mirza, Mohammad Meraj – C3
Mishra, Amarnath – D27
Mitchell, Charley – F94
Mitchell, Stacey – W8
Mittenzwei, Rhonda – I92
Miyazaki, Keita – B58
Mohammed, Linton – K12
Mohr, Amanda – L35
Molnar, Benjamin – C9
Mondello, Cristina – F105
Monetti, Lisa – A1
Moniz, Rhonda – F81
Moo-Choy, Ashley – B79
Moore, Diane – L74
Morales Lorenzo, Patricia – A4
Morgan, John – F85, G11, H26
Morin, Britton – G40, W1
Morris, Alethea – B170
Morrissey, Mitch – W22
Moses, Sharon – F27
Mosinski, Sarah – K9

PRESENTING AUTHOR INDEX

Mroz, Gabriela – L9
Mullen, Lauren – B140
Mullis, Diana – J21
Murmman, Denise – F136
Murphy, Haley – Y55
Murray, Amanda – F154
Musci, Gianluca – L6
Myshak, Annie – B33

N

Nam, Seyoung – B49
Nangeroni, Leah – I125
Napoletano, Gabriele – F36, I96
Nase, John – H16, I75
Nau, Anna-Maria – A34
Navarro Lopez, Belen – B94
Need, Melanie – A16
Neilson, Scarlet – Y13
Nelson, Alex – C25
Neri, Margherita – I14
Neumann, Maya – I54, I69
Neves, Colino – B83
Newman, Reta – B20
Nicoli, Simona – F11
Nienaber, Coen – A95
Nishiwaki, Yoshinori – B67
Norton, Gavin – Y2
Nushi, Valon – H30
Nuzum, Milton – CB1
Nuzzolese, Emilio – H12, H13, H20

O

Occhipinti, Carla – F14, G20
O'Connor, Craig – B76
Olanrewaju, Samuel – D36
Olckers, Antonel – F161, S2
Olofson, Stephanie – L60
Omedei, Monica – B8
Omondi, Victor – F74
Ortiz, Natalie – L48
Osborne, Nikola – G39, W1
Ostermann, Olivia – I100
Ott, Colby – L21
Oulton, Scott – W19

P

Pacana, Amanda – L23
Pacheco, Wagner – B173
Padmabandu, Gothami – B45
Palenik, Christopher – B166
Palmela Pereira, Cristiana – H31
Palmiere, Cristian – J26
Palmiotto, Andrea – A3
Paola, Frati – I87
Park, Chan-Seong – D21
Parker, Cody – B128, W23
Parker, Glendon – B88
Parra López, Arely – W6
Parrish, Kacie – E3

Passalacqua, Nicholas – A12
Patterson, Courtney – L32
Pavlovich, Steven – F77
Peace, Michelle – S1
Pechal, Jennifer – I121
Peer, Michal – H8
Pefferkorn, Eulalie – A107, B162
Pennington, Theresa – L41
Perdue, Charla – LS4
Perez, Katlyn – F101
Peters, Gene – G29
Peterson, Kaylan – I74
Peterson, Tynan – F53
Peyton, Katelyn – Y56
Pia Eugenia Ylenia, Petrasso – I133
Piccirilli, Amanda – Y32
Pienkowski, David – D17, D38
Pieri, Maria – L37
Pietrzak, Malgorzata – Y59
Pigaiani, Nicola – I58, I76, L70
Pilloud, Marin – A103
Pinckard, J. Keith – I126
Pink, Christine – A100
Piras, Gianluca – F121
Pirtle, Devyn – B77
Pittner, Stefan – I89
Placencia, Leonela – L20
Polo, Robert – J18
Pope, Elayne – A15
Porter, Karra – W22
Potoukian, Rocio – L52
Powell, John – I55
Powell, Macenzie – Y16
Power, Claire – J14
Pozzi, Mark – D3, D42, D7
Prada-Tiedemann, Paola – F71
Pradelle, Irene – B29
Prahlow, Joseph – I107
Prakash, Nikhil – B66
Prat, Sebastien – J11, J12
Pretty, Iain – S2
Price, Reilly – B126
Procopio, Noemi – B144, I118
Puccini, Paul – W11
Puglisi, Valerio – C28
Pulpito, Giulio – I20, J28

Q

Quarino, Lawrence – LW2
Quigley-McBride, Adele – B160
Quinter, Alexis – Y19

R

Radocaj, Annagrace – Y62
Raffaele, Roberto – F118, F119, I102, I103, I29
Rakha, Allah – L72
Ramcharan, Sheana – A30
Ramírez, Guillermo – H15
Rawls, Erin – B137, W23
Ray, Anyesha – K16
Reck, Sophia – A128

Reczek, Karen – F170
Regis, Sarina – Y53
Reinders, Stephanie – C29
Richetelli, Nicole – G32
Riddles, Sabrina – E6
Rifiorito, Arianna – F35
Rineer, Jennifer – J16
Rios Santiago, Gabriela – A148
Rivera, Madeline – F17
Rivera-Miranda, Teomie – I109
Roberta, Bibbò – I31
Roberts, Katherine – G21
Robinson, Elizabeth – B68
Robinson, Madeline – Y54, Y57
Robledo, Ivanna – A11
Roby, Tracey – J27
Roca, M. Gabriela – B2, S1
Rodriguez-Cruz, Sandra – B118
Rogers, Heather – B17
Roggia, Elisa – A31
Rolf, Cristin – I56
Roman, Anita – F148
Romdenne, Emily – Y44
Roosendaal, Jeroen – L54
Roper-Miller, Jeri – F138, F166, L11
Rosenblatt, Terri – W9
Ross, Jennifer – I49
Rossouw, Vaughn – G25
Roux, Claude – S2
Rowe, Walter – B167
Rowe, Caroline – A32
Roy, Tiffany – B74, CB3, W1
Rue, Emily – S1
Ruengdit, Sittiporn – A42
Ryu, Joon Yeol – B44

S

Saayman, Gert – I73
Sacco, Matteo Antonio – A10, E19, F112, F117, F118, F119, I102, I103, I106, I20, I24, I29, I93, I94, J24, J28, J30
Saf, Halle – Y28
Salmeri, Fabio – D19
Salmoirago, Pietro Clemente – F87, I41
Salyards, Michael – G15, W16
Sammarco, Anita – I57
Sam-Zee-Moi, Emily – B3
Sanders, Jeffrey – J31
Sandhu, Sangram – I88
Sanger, Robert – B101
Sankhyan, Deeksha – H36
Santorio, Paola – F36
Santos, Nelson – F132
Santurro, Alessandro – I19, I28, I71
Sapienza, Daniela – D19, F105
Sarajlic, Nermin – A99
Sarancha, Julianne – A82
Sass, Savannah – Y47
Sathyavagiswaran, Lakshmanan – F59, I48
Scacciaferro, Hailey – A48
Schaeffer, Luther – K18
Schaffer, Tori – B32
Scheepers, Mardi – K4

PRESENTING AUTHOR INDEX

Schmid, J.D. – CB5
Schmitt, Jessica – W60
Schoppe, Candace – W21
Schreuder, Willem – D14
Schroeder, William – L53
Schwerdtfeger, Crystal – E12
Scott, Frances – W10
Scuotto, Adriana – J3
Seashols Williams, Sarah – W6
Sebetan, Ismail – B6, F17, F23, J15, J27
Sec, Isabelle – F95
Sehrawat, Jagmahender – A9, F108, F123, F67, H10, H6
Sekula, L. Kathleen – E4
Seligardi, Marcello – F51
Selner, Emma – I97
Semma Tamayo, Alexandra – A55
Seppini, Giuseppina – F176
Servidio, Cristina – B11
Sessa, Francesco – B48
Sgheiza, Valerie – A104
Shah, Megha – H4
Sharma, Meenakshi – I2
Sharma, Vishal – K13
Sharman, Lacey – F4
Sheikh, Hasna – G24
Shelly, Mark – L3
Shelton, Donald – G8
Shepard, Claire – F153
Shetty, Prateek – Y40
Shi, Chen – C2
Shipley, Samantha – A132
Shnaidman, Vivian – W4
Shoff, Elisa – L66
Shuda, Sarah – W19
Shumate, Collin – J19
Shute, Rebecca – D18, F166
Siegfried, Mikayla – B19
Sierra, Estreylla – F2
Sigman, Michael – B115, B66
Sikon, Zoe – Y33
Silveira, David – F75
Simao, Filipa – B96
Simental, Brianna – J15
Simmons, Tal – A65
Simon, Allyson – A5
Simon, Botond – H11
Simona, Vittorio – F113, F121, I14
Singh, Paurabhi – I82
Singh, Baneshwar – I86
Sisco, Edward – B123
Sitch, Erika – L30
Siwan, Damini – C21
Skillman, Britni – W6
Skorpinski, Katherine – A105
Slone, Michele – F73
Smith, Alexander – A43
Smith, Brian – C12
Smith, Chastyn – B18
Smith, Elizabeth – H3
Smith, Jessica – Y3
Smith, Joshua – I26
Smith, Joshua – I110
Smith, Maria – I15

Smith, Rebecca – L1
Smith, Salem – B34
Smyk, Barbara – F143, I65
Snedeker, Jennifer – B36
Snippen, Jennifer – F130, F132
Snow, Meradeth – A96
Snyder, Jill – B82
Song, Junfeng – B154
Sostaric, Sandra – A91
Soto Martinez, Miriam – A21
Souccar, ami – F26, F28
Spano, Mario – I18
Spencer, Valeria – G6
Speth, Pete – I62, I66
Spies, Amy – A102
Spina, Federica – F36, I42, I98
Spradley, Kate – A154
Stefania, De Simone – I13, I133, I14
Steffen, Becky – B135
Stein, Paul – B6, F17, F23, J15, J27
Stern, Hal – W16
Stock, Michala – A110
Stolorow, Mark D. – B102, G2, G3
Stone, Anne – W23
Stout, Peter – W6
Strafforello, Francesco – D10, D35
Striupaitis, Peter – LW6
Stubblefield, Phoebe – F140
Sullivan, Christopher – I72
Sussetto, Luca – I90
Swaminathan, Meena – L69
Swigart, Allison – Y15
Swofford, Henry – B105, G31

T

Tanaka, Tobin – K11, K5
Tang, Larry – B111
Tarallo, Alessandro Pasquale – A10, I20, J28
Tarozzi, Ilaria – F57
Tarrant, Damon – A23
Tattoli, Lucia – J10
Taylor, AshLee – G32
Taylor, Melissa – G39, W1
Tegtmeyer Hawke, Rylan – A112
Teitelbaum, Jeff – F175, G13
Thakur, Shubham – F104
Thali, Michael J. – E1, W5
Thompson, Christopher – S1
Tiedge, Teresa – B145
Tiffon Nonis, Bernat-Noël – J1, J4, J5, J6
Timothy, Zoe – B155
Tiscione, Nicholas – L61
To, Chessa – Y5
To, Denise – F32
Tomassini, Luca – F116, I39
Tomlin, Leigh – G12
Tommaso, Tartaglione – I95
Tonietto, Angela – B159
Torres, Stephanie – A13
Tournel, Gilles – F78
Trevino, Joe – F154, F174
Triplett, Jeremy – B103

Truskowski, Jason – L27, L28
Tumram, Nilesh – I63
Tupik, Sherri – W10
Tzvetanov, Krassimir – C27

U

Unger, Carter – A29
Urban, Agnieszka – L42
Urbanova, Petra – C31
Uribe, Paul – I131, I53
Usman, Muhammad – Y8

V

Vag, Janos – H18
Valentino, Sasha – Y17
Van Deest, Traci – F62
van Riel-Jameson, Rhianna – F98
VanBaarle, Alexis – A143
Vastrick, Dirk – S1
Vastrick, Thomas – K20, K22
Vaswani, Vina – F68
Venkatasubramanian, Gautham – D15
Ventura Spagnolo, Elvira – F110, F114, I30
Vereb, Keith – I53
Verma, Neha – K19
Vernazza, Nicolo' – I33
Verostick, Kirsten – A84
Verrina, Maria Cristina – A10, F112, F119, I102, I103, I106, I29, I93, I94, J24, J28, J30
Vidoli, Giovanna – W23
Visi, Giacomo – F36, I42
Vita, Henrietta – A115
Vittorio, Fineschi – I95
Volpini, Laura – J7
Volz, Jessica – E15, E7, W8
Voudouri, Mariana – B50
Vr, Dinkar – G28

W

Waguespack, Karley – C23
Wakshull, Mike – D12
Wales, Gregory – C13
Walker, Stewart – F167
Walquist, Emma – E21
Walraven, Tracy – C19
Walthall, Travis – W18
Walton, Sara – L51
Wandzek, Samantha – B51
Wang, John – F163, F44
Wang, Julia – B9
Ward, Parris – C10
Warner, Margaret – F131
Waters, Kelly – F96
Waxenbaum, Erin – A125
Weaver, Michael – L59
Weber, Leighann – B152
Weidner, Lauren – I111
Weisensee, Katherine – A137

PRESENTING AUTHOR INDEX

Weiss, Kurt – D23, D6
Welch, Lauren – F29
Weller, Barbara – B108
Wescott, Daniel – A134
Wexler, Brittany – F6
Weyh, McKenzie – W6
Weyrauch, Deland – I64
White, Joseph – C17, G36
Whitecotton, Cole – W14
Wickenheiser, Ray – B148, B97
Wiedenmeyer, Emilie – A124
Wiesen, Emily – B13
Williams, C. Ken – S1
Williams, Christopher – C18
Williams, David – E20
Williams, Jacob – I6
Williams, Patricia – W18
Willis, Isaac – B121
Wilson, Kate – E9
Wilson, Timothy – W18
Wilson, Walter – B176, B71
Winokur, Agnes – B100
Winters, Kelsey – B112
Wise, Natalie – A127
Wolk, Colton – D33, D34
Woltz, Cody – B21
Wong, Alex – A113
Wood, Madeleine – L64
Wooton, Elaine – K18
Wysocka, Joanna – A149

Y

Yang, Chu-An – F102
Yang, Xiaomeng – B85
Ybanez, Larissa – I85
Yim, An-Di – A126
Young, Douglas – W17
Yue, Alexander – I44
Yurtdas, Erge – F65

Z

Zaferes, Andrea – I124
Zagaria, Hope – W1
Zaney, Mary – L74
Zapico, Sara – A136, B90
Zarwell, Lucas – F168
Zhang, Ruizhuo – Y46
Zheng, Xiaoyu – B156
Zoller, Walter – LW5
Zuccarello, Pietro – L5
Zurek-Ost, Andrea – A106



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 2024 AAFS Annual Conference in Denver, CO:

- 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 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 20, 2024. 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 #: _____

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: _____