

## Wednesday

### Poster Session

- |                        |            |  |
|------------------------|------------|--|
| 11:30 a.m. - 1:00 p.m. | <b>E1</b>  | <b>The First Cut Is the Deepest</b><br><i>Tyrish Y. Page, MA*</i> ; <i>Jeff Thomas, MBA*</i> ; <i>Angelina I. Phillips, MD*</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E2</b>  | <b>Which Came First, the Chicken or the Egg? A Key to Shed Light on a “Road Murder”</b><br><i>Giuseppe Bertozzi, MD*</i> ; <i>Stefania De Simone, MD</i> ; <i>Michela Ferrara, MD</i> ;<br><i>Lorenzo Spagnolo, MD</i> ; <i>Giuseppe Davide Albano, MD</i> ; <i>Pietrantonio Ricci, MD, PhD</i> ;<br><i>Francesca Maglietta, MD</i> ; <i>Monica Salerno, MD, PhD</i>                 |
| 11:30 a.m. - 1:00 p.m. | <b>E3</b>  | <b>Bilateral Internal Carotid Arteries Dissection in Motorcycle Accidents: A Case Report and Review of the Literature</b><br><i>Caterina Petetta, MD*</i> ; <i>Niccolò D. Melloni, MD*</i> ; <i>Lucia Tattoli, PhD</i> ; <i>Davide Santovito, MD</i> ;<br><i>Giancarlo Di Vella, MD, PhD*</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E4</b>  | <b>Gone in 60 Seconds: A Fatal Case of Asphyxiation in a Confined Working Space</b><br><i>Giuseppe Davide Albano, MD</i> ; <i>Giuseppe Bertozzi, MD*</i> ; <i>Mauro A. Ciavarella</i> ;<br><i>Stefania De Simone, MD</i> ; <i>Pietrantonio Ricci, MD, PhD</i> ; <i>Irene Riezzo, MD, PhD</i> ;<br><i>Francesca Maglietta, MD*</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E5</b>  | <b>Fatal Alveolar Capillary Dysplasia (ACD) in Two Siblings: A Rare Heritable Form of Persistent Pulmonary Hypertension in Neonates</b><br><i>Caterina Petetta, MD*</i> ; <i>Giovanni Botta, MD</i> ; <i>Andrea Zonta, MD</i> ; <i>Eleonora Di Gregorio, PhD</i> ;<br><i>Giancarlo Di Vella, MD, PhD*</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E6</b>  | <b>A Young Mummy</b><br><i>Giuliana D’anna</i> ; <i>Ilaria Santoiemma*</i> ; <i>Francesco Introna, MD</i> ; <i>Valeria Santoro, PhD</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E7</b>  | <b>Mortality Among Hospitalized Injured Older Adults (HIOAs) for a Major Trauma: A Retrospective Autopsy Analysis (2000–2017)</b><br><i>Francesco Amico, MD</i> ; <i>Giuseppe Davide Albano, MD</i> ; <i>Aldo Liberto, MD</i> ;<br><i>Federico Patanè, MD</i> ; <i>Dario Condorelli</i> ; <i>Martina Fichera, MD</i> ; <i>Diego Geraci, PhD</i> ;<br><i>Monica Salerno, MD, PhD*</i> |
| 11:30 a.m. - 1:00 p.m. | <b>E8</b>  | <b>Funny Games: Homicide Among Neighbors</b><br><i>Francesco Sessa, MS*</i> ; <i>Michela Ferrara, MD</i> ; <i>Francesca Maglietta, MD*</i> ;<br><i>Giuseppe Bertozzi, MD*</i> ; <i>Irene Riezzo, MD, PhD</i> ; <i>Marcello Rendine, DBA</i> ;<br><i>Pietrantonio Ricci, MD, PhD</i> ; <i>Natascha Pascale, MD</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E9</b>  | <b>A Mafia Ritual of Hiding Murders: Sheep in Boots!</b><br><i>Francesco Sessa, MS*</i> ; <i>Elena Varotto*</i> ; <i>Laura Landini, MS</i> ; <i>Francesca Maglietta, MD*</i> ;<br><i>Santina Cantatore</i> ; <i>Pietrantonio Ricci, MD, PhD</i>  |
| 11:30 a.m. - 1:00 p.m. | <b>E10</b> | <b>Three Cases of Traumatic Death?</b><br><i>Costanza Filomena*</i> ; <i>Francesca Iannaccone</i> ; <i>Federica Gori, MD</i> ; <i>Luigi Papi</i> ; <i>Angela Pucci, MD</i>   |
| 11:30 a.m. - 1:00 p.m. | <b>E11</b> | <b>Child Sexual Abuse of Boys: A Six-Year Retrospective Analysis</b><br><i>Serena Maria Curti, MD*</i> ; <i>Caterina Bosco, MD*</i> ; <i>Sara S. Racalbutto, PsyD</i> ; <i>Elena Coppo, MD</i> ;<br><i>Giancarlo Di Vella, MD, PhD*</i>  |



## GENERAL

---

- 11:30 a.m. - 1:00 p.m. **E12** **A Multiple Congenital Malformation in a Forensic Infant Autopsy**  
*Francesco Lupariello, MD\**; *Serena Maria Curti, MD*; *Janet B. Duval, MSN*;  
*Giovanni Botta, MD*; *Giancarlo Di Vella, MD, PhD\**
- 11:30 a.m. - 1:00 p.m. **E13** **Penetration Injury From Child Sexual Abuse: A Systematic Literature Review**  
*Patricia M. Speck, DNSc\**; *Caroline Concannon, BSN\**; *Kimberly Peek, BSN\**
- 11:30 a.m. - 1:00 p.m. **E14** **The Challenge of Diagnosing Child Abuse (CA): The Perks of a Multidisciplinary Approach**  
*Francesco Lupariello, MD\**; *Sara S. Racalbutto, PsyD*; *Elena Coppo, MD*; *Greta Cena, MD\**;  
*Giancarlo Di Vella, MD, PhD\**
- 11:30 a.m. - 1:00 p.m. **E15** **A Rare Case of Iatrogenic Skull Damage in a Newborn**  
*Luigi Papi*; *Federica Gori, MD*; *Chiara Toni, MD*; *Sara Turco\**
- 11:30 a.m. - 1:00 p.m. **E16** **Causes of Death in Patients Under the Age of 65 at the Bari Polyclinic**  
*Gianni De Giorgio\**; *Fiorenza Zotti, PhD*; *Eloisa Maselli, MD*; *Valeria Bruno, MD*;  
*Valentina Ronco, MD*; *Davide Ferorelli*; *Francesca Donno, MD*; *Alessandro Dell'Erba, PhD*
- 11:30 a.m. - 1:00 p.m. **E17** **An Analysis of Death at Long-Term Care Health Facilities in Japan**  
*Alissa M. Shida, BA\**
- 11:30 a.m. - 1:00 p.m. **E18** **The Faithless Nurse: A Strange Case of Hyperthermia**  
*Francesca Maglietta, MD\**; *Lorenzo Spagnolo, MD*; *Michela Ferrara, MD*;  
*Dania De Carlo, MD*; *Giuseppe Davide Albano, MD*; *Mauro A. Ciavarella*
- 11:30 a.m. - 1:00 p.m. **E19** **A Tale of Two Sisters: A Case Review of a Suicide Pact Between Adult Siblings**  
*Meryle A. Dotson, MA\**; *Mary Mainland, MD*
- 11:30 a.m. - 1:00 p.m. **E20** **A Case of Strangulation With a Cable Tie: Homicide or Suicide?**  
*Omar Bonato, MD\**; *Elena Lucenti, MD*; *Mauro Coppone, MD\**; *Erica Bacchio, MD*;  
*Chiara Marini, MD*; *Letizia Alfieri, MD*; *Rosa Maria Gaudio*; *Lorenzo Marinelli*;  
*Margherita Neri, MD, PhD*
- 11:30 a.m. - 1:00 p.m. **E21** **The Evolving Suicide Note**  
*Imron G. Ramos, BS\**; *Ismail M. Sebetan, MD, PhD\**; *Paul Stein, PhD\**
- 11:30 a.m. - 1:00 p.m. **E22** **Determining the Accuracy and Suitability of Measurement Apps for Crime Scene Documentation**  
*Victoria Zeger\**; *Christina A. Malone, MSFS*
- 11:30 a.m. - 1:00 p.m. **E23** **Observation, Explanation, and Testing in Forensic Science Using a Death Investigation Active Learning Assignment**  
*Trevor I. Stamper, PhD\**; *Krystal R. Hans, PhD*



## Thursday—Session I

### Drugs and Explosives

*Moderator:* Sharon K. Moses, PhD  
Northern Arizona University  
Department of Anthropology  
Flagstaff, AZ

*Co-Moderator:* Shana M. Hogg, PhD  
Center for Forensic Science Research  
and Education  
Willow Grove, PA

- 8:30 a.m. - 8:45 a.m. **E24** **The Development of a Flexible Algorithm for Substance Identification Using Mass Spectrometry**  
*Samantha A. Mehnert\**; Brandon D. Lowe; J. Tyler Davidson, MS; Glen P. Jackson, PhD  
(FSF Emerging Forensic Scientist Award Paper Presentation)
- 8:45 a.m. - 9:00 a.m. **E25** **A Qualitative Analysis of Human Growth Hormone (HGH) by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) and Complementary Techniques**  
*Breanne Hamlett\**; Natalie Howard, BS; Anna L. Deakin, MS; Brent M. Allred, PhD
- 9:00 a.m. - 9:15 a.m. **E26** **Identification of the Polymer-Bound Drugs on the Fabric Surface: A Challenge to Forensic Drug Analysts**  
*Shahnaz Akhtar, MPhil*; Abdul Razaq, MPhil\*; Khalid S. Feras, MPhil\*; Muhammad Taimoor Chaudhary, MPhil\*; Mohammad A. Tahir, PhD\*
- 9:15 a.m. - 9:30 a.m. **E27** **Flubromazepam: Synthesis and Characterization of Positional Isomers for Forensic Analysis**  
*Evelyn S. Ligon\**; Jason R. Nawyn, MSFS; Lonnie V. Jones II, BS; Stefan A. France, PhD; Brent M. Allred, PhD; Daniel V. Reinhardt, PhD
- 9:30 a.m. - 9:45 a.m. **E28** **Sudden Infant Death in a Newborn From Drug-Dependent Parents: The Utility of Hair Analysis**  
*Costanza Filomena\**; Silvio Chericoni; Fabio Stefanelli; Chiara Toni, MD
- 9:45 a.m. - 10:00 a.m. **E29** **A Novel Vapor Delivery Device for Homemade Explosive Analysis**  
*Lauryn DeGreeff, PhD\**; Christopher J. Katilie; Susan Rose-Pehrsson, PhD; Michael Malito
- 10:00 a.m. - 10:15 a.m. **E30** **The Current State of Homemade Explosive Detection by Canines—Research and Knowledge Gaps**  
*Lauryn DeGreeff, PhD\**; Kimberly Peranich, BS; Alison G. Simon, PhD
- 10:15 a.m. - 10:30 a.m. **Break**



# GENERAL

---

## Crime Scene Investigation

---

*Moderator: James P. O'Burke, BS  
The Polygraph Institute  
San Antonio, TX*

*Co-Moderator: Derek J. Kingsbury, MBA  
United States Army  
Criminal Investigation Command  
Fort Riley, KS*

- 10:30 a.m. - 10:45 a.m.    **E31**    **The Detection of Risk Factors of Elder Abuse in Domestic Settings**  
*Maria Carla Mazzotti, MD\*; Alberto Amadasi, MD; Anna Maria Govi, MD;  
Giancarlo Salsi, PhD; Susi Pelotti, MD*
- 10:45 a.m. - 11:00 a.m.    **E32**    **Forensic Evidence and Investigation Implications in Domestic Violence Incidents Involving Non-Fatal Strangulation**  
*Katherine M. Brown, PhD\*; Tara O. Shelley, PhD; Lacy Hensley, MA*
- 11:00 a.m. - 11:15 a.m.    **E33**    **Staging: A Human Rights Issue**  
*Edwin O. Olaya Molina, BA\*; Daniela Tafur\**
- 11:15 a.m. - 11:30 a.m.    **E34**    **Forensic Investigation and Criminal Profiling of Very Unusual Infanticide in Italy**  
*Luciano Garofano, PhD\*; Laura Volpini, PhD\**
- 11:30 a.m. - 11:45 a.m.    **E35**    **Crime Scene Reconstruction in an Organization of Scientific Area Committees (OSAC) World**  
*Peter R. Valentin, MSFS\**
- 11:45 a.m. - 12:00 p.m.    **E36**    **Dermoscopy in Forensic Medicine**  
*Benjamin Mokdad\*; Anne-Claire Lhoumeau, MD; Pauline Jorda; Paul Young, MD;  
Gilles P. Tournel*
- 12:00 p.m. - 1:15 p.m.               **Lunch**

## Poster Session

---

- 11:30 a.m. - 1:00 p.m.    **E37**    **Diligence, Dedication, and Devotion: Reaching Back Into History for the Image of a Victim**  
*Sandra R. Enslow, BA\**
- 11:30 a.m. - 1:00 p.m.    **E38**    **How Accurate Is Forensic Image Identification of Surgically Altered Faces?**  
*Petra Urbanová, PhD\*; Hana Eliasova, PhD; Tatjana Dostalova, MD, PhD*
- 11:30 a.m. - 1:00 p.m.    **E39**    **Forensic Validity and Usefulness of the Apache Tracking Method: A Multifaceted Research and Development Protocol**  
*Joseph L. Lewis III, MFS\*; Ismail M. Sebetan, MD, PhD\*; Paul Stein, PhD\**
- 11:30 a.m. - 1:00 p.m.    **E40**    **A Holistic Assessment of Job Satisfaction of Forensic Psychology Professionals**  
*Dione Washington\**
- 11:30 a.m. - 1:00 p.m.    **E41**    **A Forensic Criminological Approach to Oil Spill Investigation**  
*Edidiong Mendie\*; Ashraf Mozayani, PharmD, PhD*

# GENERAL



- 11:30 a.m. - 1:00 p.m. **E42** **Validation of a Dry Vacuum Swabbing Method for the Recovery of Epithelial Cells From Handled Porous Substrates**  
*Yih Ling Saw, MSFS\**; *Kevin J. Piccirilli, MSFS*; *Sara G. Goodman, MSFS*;  
*Heather E. McKiernan, MSFS*
- 11:30 a.m. - 1:00 p.m. **E43** **Investigating Touch DNA Recovery From Ivory as a Method to Identify Poachers and Traffickers**  
*Emily L. Horrocks, MSc\**
- 11:30 a.m. - 1:00 p.m. **E44** **Validation of the PrepFiler® Express BTA™ Forensic DNA Extraction Kit**  
*Jessica Slater\**; *Dorothy M. Catella, MSFS*; *Megan Connolly, MPS*; *Kelly Beatty, MSFS*
- 11:30 a.m. - 1:00 p.m. **E45** **An Evaluation of the Effects of Various Digest Times on the DNA Yield for Differential Separations at the West Virginia State Police Forensic Laboratory**  
*Allegra N. Forwith, BA\**; *Bailey E. Hill, MS*; *Kelly Beatty, MSFS*
- 11:30 a.m. - 1:00 p.m. **E46** **The Effect of Crime Scene Investigation (CSI) on Forensic DNA Database Recognition: A Public Survey of South Koreans**  
*Jihyun Lee*; *Sung Kyum Cho, PhD*; *Sohee Cho, PhD*; *Moon-Young Kim*; *Soong Deok Lee, PhD*;  
*Kun Won Jung, MD, PhD\**
- 11:30 a.m. - 1:00 p.m. **E47** **An Evaluation of the Efficacy of Whole Genome Amplification (WGA) for Degraded DNA**  
*Mitsuyo Machida\**; *Kazuhiko Kibayashi, MD*
- 11:30 a.m. - 1:00 p.m. **E48** **An Optimized Small Molecule Extraction Method for Dried Blood Spots (DBS)**  
*You-Rim Lee, BS\**; *Jiyeong Lee, PhD*; *Yoo-Jin Lee, MT*; *Hyo-Jin Kim, MT*; *Sora Mun, MT*;  
*Hee-Gyoo Kang, PhD*
- 11:30 a.m. - 1:00 p.m. **E49** **The Development of Two Forensically Important Blow Flies Collected From Human Remains in Western Colorado**  
*Brandon V. Everhart, BS\**; *Alexander J. Smith*; *Melissa A. Connor, PhD*; *Elson Shields, PhD*
- 11:30 a.m. - 1:00 p.m. **E50** **The Effects of Ketamine and Xylazine on Larval Development in the Blow Fly (*Phormia Regina*)**  
*Stephanie A. Olson\**; *Tobias Landberg, PhD*; *Brandon Strauss, MS*; *Karen S. Scott, PhD*
- 11:30 a.m. - 1:00 p.m. **E51** **Profiling the Odorant Chemicals Present in *Cimex Lectularius***  
*Katelynn A. Perrault, PhD\**
- 11:30 a.m. - 1:00 p.m. **E52** **Can Body Cooling Animal Models Help Solve the Jeju Island Cold Case?**  
*Dae-Kyoon Park, MD, PhD\**; *Duk-Soo Kim, PhD*; *Cheolho Hyun*; *Taehwa Song*;  
*Kyeongyang Sim*; *Na Jin Kim*
- 11:30 a.m. - 1:00 p.m. **E53** **Climate's Influence on Diptera Present on a Carcass**  
*Timothy Juedes, MS\**; *Ismail M. Sebetan, MD, PhD\**; *Paul Stein, PhD\**
- 11:30 a.m. - 1:00 p.m. **E54** **The Mystery Behind the Composition of Black Fingerprint Powders**  
*Grayce Behnke, BS\**; *Andrea Kardohely\**; *Catherine G. Rushton, EdD*;  
*Rosalynn Quinones, PhD*
- 11:30 a.m. - 1:00 p.m. **E55** **A Comprehensive Schematic for Postmortem Fingerprint Stations at Mass Fatality Incidents**  
*Marzena H. Mulawka, MFS\**; *Michael A. Mosco, MS\**; *David Martinez, BS*



## GENERAL

---

- 11:30 a.m. - 1:00 p.m. E56 **Forensic Podiatric Science and Practice in Crime Scene Investigation**  
*Kewal Krishan, PhD\**; *John A. DiMaggio, DPM*
- 11:30 a.m. - 1:00 p.m. E57 **A Reference Collection of Footwear Randomly Acquired Characteristics (RACs) for Frequency and Spatial Distribution Analysis**  
*Kim Dang, BS*; *Colbey Ryman\**; *Thomas G. Kopczynski, BS\**; *Katherine Ky*
- 11:30 a.m. - 1:00 p.m. E58 **A Longitudinal Database of Athletic Shoe Outsole Wear**  
*Susan VanderPlas\**; *Guillermo Basulto-Elias, PhD*; *James E. Kruse*; *Stacy Renfro, MS*; *Alicia L. Carriquiry, PhD*
- 11:30 a.m. - 1:00 p.m. E59 **Paternity Testing and Next-Generation Sequencing: New Approaches to Detecting Illegal Bird Trading**  
*Ana Luiza Queiroz, BA\**; *Wander U. Mesquita, BSc*; *Adriana H. Pereira, MSc*; *Susanne Facchin, PhD*; *Sandra Ludwig, PhD*; *Nazaré L. Abreu, MSc*; *Isabella Pena, PhD*; *Evanguedes Kalapothakis, PhD*

### Death Investigation

---

Moderator: *Teresa A. White, MA*  
*Missoula, MT*

Co-Moderator: *Gregory M. Dickinson, MD*  
*Montefiore Medical Center*  
*Department of Pathology and*  
*Laboratory Medicine*  
*Bronx, NY*

- 1:15 p.m. - 1:30 p.m. E60 **Death Due to Unintentional Dichloromethane Inhalation: A Case Report and Cautionary Tale**  
*Anita Roman Hasert, BS\**; *Demi B. Garvin, PharmD*; *Angelina I. Phillips, MD*
- 1:30 p.m. - 1:45 p.m. E61 **Artificial Intelligence for Homicide Investigations**  
*Jiaqi M. Lu, MS\**; *Xuanfeng Fang, MSc*; *Elaine M. Pagliaro, JD*; *Henry C. Lee, PhD*
- 1:45 p.m. - 2:00 p.m. E62 **Complex Suicides and Where to Find Them: Disclosing the Mystery**  
*Giuseppe Bertozzi, MD\**; *Francesca Maglietta, MD\**; *Mauro A. Ciavarella*; *Carmela Fiore, MD*; *Irene Riezzo, MD, PhD*; *Pietrantonio Ricci, MD, PhD*; *Francesco Sessa, MS*
- 2:00 p.m. - 2:15 p.m. E63 **An Eight-Year Retrospective Study on Suicides in Washington, DC**  
*Breanna M. Cuchara, MFS\**; *Francisco J. Diaz, MD*
- 2:15 p.m. - 2:30 p.m. E64 **Drowning in the District: A Ten-Year Retrospective Review of Cases in the Nation's Capital**  
*Daniel J. Morgan, MS\**
- 2:30 p.m. - 2:45 p.m. E65 **A Killer in the Hospital Wards: Murders Committed by the Criminal Administration of Heparin**  
*Luigi Papi*; *Federica Gori, MD*; *Chiara Toni, MD*; *Sara Turco\**
- 2:45 p.m. - 3:00 p.m. E66 **Down the Rabbit Hole: The Functional Paralysis of a Medical Examiner Facility by Contaminated Palo Mayombe Artifacts**  
*Brett E. Harding, MBA\**; *Kyle Shaw, MBBS*; *Barbara C. Wolf, MD*
- 3:00 p.m. - 3:15 p.m. **Break**





## Homicide Investigation

- Moderator:* Adam C. Armstrong, MS  
United States Army Criminal Investigation Division  
Fort Bragg, NC
- Co-Moderator:* Carlos A. Gutierrez, MS  
Chaminade University of Honolulu  
Honolulu, HI
- 3:15 p.m. - 3:30 p.m. **E67** **Look in the Freezer—The Story of a Murder: A Case Report From Portugal**  
*João Manata, MSc\*; Diogo J. Calçada, MSc; Claudia Marques, MD*
- 3:30 p.m. - 3:45 p.m. **E68** **A Practical Classification for Spree Killers**  
*Mark E. Safarik, MS\*; Katherine Ramsland, PhD\**
- 3:45 p.m. - 4:00 p.m. **E69** **Pozzetto: Inside Behavioral Mazes**  
*Edwin O. Olaya Molina, BA\**
- 4:00 p.m. - 4:15 p.m. **E70** **Gargano Mafia: The Fifth Italian Mafia With an Analysis of 129 Murders**  
*Francesca Maglietta, MD\*; Mauro A. Ciavarella; Giuseppe Bertozzi, MD;  
Giuseppe Davide Albano, MD; Angelo Montana, MD; Anna Cornacchio;  
Pietrantonio Ricci, MD, PhD; Monica Salerno, MD, PhD\**
- 4:15 p.m. - 4:30 p.m. **E71** **A Closer Look Into Latino Youth Gang Violence: From MS13 to the Latin Kings**  
*Cliff Akiyama, MPH, MA\**
- 4:30 p.m. - 4:45 p.m. **E72** **The Cruel Deaths by Suffocation of 71 Migrants Smuggled From Hungary to Austria: A Tragic Case Study**  
*Armin A. Farid, DMD\*; Christoph Reisinger, MD\**
- 4:45 p.m. - 5:00 p.m. **E73** **A Crucifixion Experiment to Assess Wrist and Forearm Blood Flows as Observed on the Shroud of Turin**  
*John P. Jackson, PhD\*; Keith E. Propp, PhD\*; Kim M. Look, DDS\*; Rebecca S. Jackson, MBA\**

## Thursday—Session II

### Multidisciplinary Session: Criminalistics I/General II—Rape Kit Collection and Processing

- Moderator:* Gina Londino-Smolar, MS  
Indiana University–Purdue University Indianapolis  
Indianapolis, IN
- Co-Moderator:* Noelle J. Umback, PhD  
Office of Chief Medical Examiner  
Department of Forensic Biology  
New York, NY
- 8:30 a.m. - 8:50 a.m. **E74** **Testing Sexual Assault Kits Supports the Principle of “Justice For All”**  
*Julie L. Valentine, PhD\*; Suzanne Miles, BS\*; Leslie Miles, DNP; Linda Mabey, DNP*
- 8:50 a.m. - 9:05 a.m. **B34** **A Casework Review for Determining Time Since Intercourse in Boston, Massachusetts**  
*Cassandra A. Swart, BS\*; Caitlin E. Rogers, MS; William Cavedon, MS;  
Amy N. Brodeur, MFS; Kathryn Hall, MS*
- 9:05 a.m. - 9:20 a.m. **E75** **Forensic Doctors and Clinical Forensic Medicine: Should or Could?**  
*Pierre-Antoine Peyron, MD; Elodie Michel; Eric Baccino, MD\**



## GENERAL

---

- 9:20 a.m. - 9:40 a.m. **B35** **A Strategic Design to Arrest a Serial Rapist and Killer: The Role of a DNA Profiling Database and Population Census Data**  
*Mohammad A. Tahir, PhD; Syed W. Hamdani\*; Mudassar Naseer, MPhil; Nasir Siddique, MPhil, LLB*
- 9:40 a.m. - 9:55 a.m. **E76** **DNA Evidence Collection and Analysis in Groping Sexual Assault Cases**  
*Julie L. Valentine, PhD\*; Suzanne Miles, BS\**
- 9:55 a.m. - 10:10 a.m. **Break**
- 10:10 a.m. - 10:25 a.m. **B36** **The Recovery of Foreign DNA Introduced Through Kissing**  
*Joyce P. Williams, DNP\*; David A. Williams, DDS\**
- 10:25 a.m. - 10:40 a.m. **E77** **Forensic Nurses in Institutes of Forensic Medicine: An Evaluation of the Zurich Integration Model**  
*Valeria Hofer\*; Michael Thali, MD; Rosa M. Martinez, MD*
- 10:40 a.m. - 11:00 a.m. **B37** **Rapid DNA Turnaround for the Analysis of All Victim Sexual Assault Evidence When a Kit Is Collected**  
*Diana K. Faugno, MSN\*; Patricia M. Speck, DNSc*

## Friday

### DNA, Serology, and Veterinary Forensics

---

*Moderator: Kimberlee Sue Moran, MSc  
Rutgers University-Camden  
Camden, NJ*

*Co-Moderator: Cliff Akiyama, MPH, MA  
Akiyama and Associates, LLC  
Philadelphia, PA*

- 8:30 a.m. - 8:45 a.m. **E78** **When the Confirmation Sample Doesn't Match the Profile Entered Into the Combined DNA Index System (CODIS): Troubleshooting the High-Throughput Database Process**  
*Devon Hall, MFS; Bruce J. Heidebrecht; Michelle Groves, MS\*; Argiro G. Magers, MS*
- 8:45 a.m. - 9:00 a.m. **E79** **Rapid DNA Implementation—Experiences From an Accredited Laboratory**  
*Kristen Naughton, BS; Stephanie R. Sivak, MS\*; Jamia J. Mealy, MS*
- 9:00 a.m. - 9:15 a.m. **E80** **The Smell of DNA: How Genetics and Fear Influence the Human Scent**  
*Francesco Sessa, MS\*; Marcello Rendine, DBA\*; Carmela Fiore, MD; Stefania De Simone, MD; Pietrantonio Ricci, MD, PhD; Irene Riezzo, MD, PhD*
- 9:15 a.m. - 9:30 a.m. **E81** **A Raman Spectroscopic Method for Semen Identification: Azoospermia**  
*Marisia A. Fikiet, MS\*; Igor K. Lednev, PhD*
- 9:30 a.m. - 9:45 a.m. **E82** **Phenotype Profiling Based on Raman Spectroscopy of Biological Stains: A Blood Test for the Donor Age**  
*Igor K. Lednev, PhD\*; Kyle C. Doty, PhD*
- 9:45 a.m. - 10:00 a.m. **E83** **Discovery Index Metabolites for the Estimation Age of Bloodstain**  
*You-Rim Lee, BS\*; Ae Eun Seok, BS; Jiyeong Lee, PhD; Yoo-Jin Lee, MT; Hyo-Jin Kim, MT; Sora Mun, MT; Hee-Gyoo Kang, PhD*



# GENERAL



- 10:00 a.m. - 10:15 a.m. **E84** **Veterinary Forensics: Animal Death Investigations and Veterinary Diagnostic Laboratory Personnel**  
*Megan Romano, DVM\**; *Michael S. Filigenzi, PhD*; *Robert H. Poppenga, DVM, PhD*;  
*Cynthia L. Gaskill, DVM, PhD*
- 10:15 a.m. - 10:30 a.m. **Break**

## Firearms and Fingerprints

*Moderator: Lawrence Lavine, DO  
Lakewood, WA*

*Co-Moderator: Theodore W. Born, MSFS  
Department of Defense Inspector General  
Stafford, VA*

- 10:30 a.m. - 10:45 a.m. **E85** **A Validation Study on Automated Groove Detection Methods in 3D Bullet Land Scans**  
*Kiegan Rice, MS\**; *Heike Hofmann*; *Ulrike Genschel*
- 10:45 a.m. - 11:00 a.m. **E86** **Discrimination Between Aerial and Targeted Shooting by the Analysis of Trace Evidence: A Case Study**  
*Khalid S. Feras, MPhil\**; *Mohammad A. Tahir, PhD\**; *Mudassar Baig, MSc\**;  
*Abdul Razaq, MPhil\**; *Muhammad Irfan Ashiq, PhD\**; *Zumrad Usman Bhutta, MS\**
- 11:00 a.m. - 11:15 a.m. **E87** **The Forensically Relevant Applications of Laser Ablation Direct Analysis in Real Time Imaging-Mass Spectrometry (LADI-MS)**  
*Kristen L. Fowble, BS\**; *Rabi A. Musah, PhD*
- 11:15 a.m. - 11:30 a.m. **E88** **How Do Latent Print Examiners Perceive Proficiency Testing? An Analysis of Examiner Perceptions, Performance, and Print Quality**  
*Sharon Kelley, PhD\**; *Daniel C. Murrie, PhD*; *Brett O. Gardner, PhD*; *Karen D.H. Pan*;  
*Karen Kafadar, PhD*; *Kellyn Blaisdell, BA*
- 11:30 a.m. - 11:45 a.m. **E89** **How Does Training and Certification Affect the Perception of Accuracy During Fingerprint Examinations?**  
*Crystal L. Wagoner, MFS\**
- 11:45 a.m. - 12:00 p.m. **E90** **What Do Latent Print Examiners Want in a Statistical Model?**  
*Anthony Koertner, MS\**
- 12:00 p.m. - 1:15 p.m. **Lunch**

## Poster Session

- 11:30 a.m. - 1:00 p.m. **E91** **Plato: Unaware Narrator of a Death by Hemlock Poisoning—From Socrates' Death to the Present**  
*Isabella Aquila, MD\**; *Matteo A. Sacco, MD\**; *Roberto Raffaele, BE\**; *Santo Gratteri, MD*;  
*Pietrantonio Ricci, MD, PhD*
- 11:30 a.m. - 1:00 p.m. **E92** **WITHDRAWN**
- 11:30 a.m. - 1:00 p.m. **E93** **The Classification of an Ethanol Coeluting Compound Via Headspace Gas Chromatography (HS/GC)**  
*Andrea Kardohely\**; *Jay D. Spencer, MBA*; *Jennifer Creed, BS*; *Michele M. Foster, BS*;  
*Lauren L. Richards-Waugh, PhD*



## GENERAL

---

- 11:30 a.m. - 1:00 p.m. **E94** **Illicit Drug Deaths in Older Adults: The Need for Comprehensive Scene Investigation**  
*Stanislaw T.J. Bielous, BS\**; *Dennis J. Chute, MD*; *Veronica Salvas, MPH*;  
*Robert J. Bready, MS*; *Kia K. Newman, MD\**
- 11:30 a.m. - 1:00 p.m. **E95** **I Smell a Rat: Optimizing a Method for Detecting the Rat Poison Brodifacoum With Gas Chromatography**  
*Abigail L. Meyer, BS\**; *Morgan M. Clothier, MFS*; *Brandon P. Jones, MS*;  
*Luke C. Short, PhD*; *Lauren L. Richards-Waugh, PhD*
- 11:30 a.m. - 1:00 p.m. **E96** **Method Validation for the Detection of 22 Benzodiazepines, Including Clonazepam, Etizolam, and Flubromazolam, Using Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)**  
*Rachel Lane\**; *Dustin Smith, BS*; *Jared Castellani, MSFS*; *Lauren L. Richards-Waugh, PhD*
- 11:30 a.m. - 1:00 p.m. **E97** **A Paper Analytical Device to Evaluate Illicit Drug Supply Chains**  
*Tracy-Lynn E. Lockwood, BS\**; *Marya Lieberman, PhD*
- 11:30 a.m. - 1:00 p.m. **E98** **Anabolic Androgenic Steroids Abuse: New Molecular Biomarkers**  
*Francesco Sessa, MS\**; *Monica Salerno, MD, PhD*; *Pietrantonio Ricci, MD, PhD*;  
*Cristoforo Pomara, MD, PhD*
- 11:30 a.m. - 1:00 p.m. **E99** **The Comparison of Entry Bullet Holes in Glass, Metal, and Wood With a Variance in Caliber, Distance, and Grain Weight**  
*Mark A. Waldo, MFS\**; *Ismail M. Sebetan, MD, PhD\**; *Paul Stein, PhD\**
- 11:30 a.m. - 1:00 p.m. **E100** **An Investigation Into the Discriminating Potential of Different Techniques for the Analysis of Cosmetic Foundations**  
*Jessica McFarland\**; *Thomas A. Brettell, PhD*; *Megan Zellner, MSFS*; *Lawrence Quarino, PhD*
- 11:30 a.m. - 1:00 p.m. **E101** **Strengthening the Evaluation of Forensic Glass Evidence Using a Likelihood Ratio Approach**  
*Ruthmara Corzo\**; *Jose R. Almirall, PhD*
- 11:30 a.m. - 1:00 p.m. **E102** **Preparation of Molecularly Imprinted Polymers for the Extraction of Azo and Anthraquinone Dyes From Diesel Fuel**  
*Antonija Glavac, BSc*; *Hrvoje Sarajlija, PhD\**; *Ivana Bacic, PhD*;  
*Dragana Mutavdic Pavlovic, PhD*; *Gordana Matijašić, PhD*
- 11:30 a.m. - 1:00 p.m. **E103** **Self-Organizing Maps to Analyze the Relationship of Ignitable Liquids and Substrates**  
*Nicholas A. Thurn\**; *Mary R. Williams, MS*; *Michael E. Sigman, PhD*
- 11:30 a.m. - 1:00 p.m. **E104** **An Application for Forensic Analysis: Discrimination of Fibers Using a Trace Organic Additive and Pyrolyzate Marker**  
*Chikako Takei*; *Kenichi Yoshizawa, MPharm\**
- 11:30 a.m. - 1:00 p.m. **E105** **Validation of New Test Media for Gunshot Residue Visualization in Distance Determination Methods**  
*Steven J. Little, BS\**; *Jessica Coudriet, BS*; *Jessica Pappas, MS*; *Catherine G. Rushton, EdD*;  
*Lauren L. Richards-Waugh, PhD*
- 11:30 a.m. - 1:00 p.m. **E106** **A Comparison of Gunshot Residue (GSR) Visualization With Alternate Light Sources (ALS) and Infrared (IR)**  
*Mark Vecellio, MFS\**; *Alycia M. Smentkiewicz\**; *Sarah V. Morello\**; *Patrick M. Wright\**

# GENERAL



- 11:30 a.m. - 1:00 p.m. **E107** **The Detection and Identification of Organic Gunshot Residue (OGSR) Via Fluorescence Mapping and Raman Spectroscopy**  
*Shelby R. Khandasammy, BS\**; *Alexander Rzhevskii, PhD*; *Igor K. Lednev, PhD*
- 11:30 a.m. - 1:00 p.m. **E108** **Laser-Induced Breakdown Spectroscopy (LIBS) as a Rapid Detection Technique for Gunshot Residue (GSR)**  
*Korina Menking-Hoggatt, MSc\**
- 11:30 a.m. - 1:00 p.m. **E109** **A Review of Forensic Analysis of Phenolphthalein in Bribery Cases**  
*Geetanjli Sachdeva, MSc\**
- 11:30 a.m. - 1:00 p.m. **E110** **Violence Against Health Workers in Turkey**  
*Inci Y. Tezbasan, BSc\**; *Ümit Ertem, MSc*; *Sevil Atasoy, PhD*
- 11:30 a.m. - 1:00 p.m. **E111** **The Role of Human Rights as a Reason for Refugee Status and Immigration Requests: A Retrospective Analysis of Southern Italy**  
*Isabella Aquila, MD\**; *Matteo A. Sacco, MD\**; *Elena Sacco*; *Piero Lucà*; *Fabio Lucà*; *Santo Gratteri, MD*; *Pietrantonio Ricci, MD, PhD*
- 11:30 a.m. - 1:00 p.m. **E112** **Perceptions of Task Relevance in Forensic Science: A Survey of Forensic Analysts**  
*Brett O. Gardner, PhD\**; *Sharon Kelley, PhD*; *Daniel C. Murrie, PhD*; *Kellyn Blaisdell, BA*

## Multidisciplinary Session: Criminalistics III/General—Forensic Science Education

*Moderator: Matthew G. Manns, MS*  
*United States Army Criminal Investigation Command*  
*Fort Campbell, KY*

*Co-Moderator: Micah Rush, MSFS*  
*Fort Benning Criminal Investigation Battalion*  
*Fort Benning, GA*

- 1:15 p.m. - 1:30 p.m. **E113** **National Institute of Justice (NIJ) Initiatives and Partnerships to Advance the Forensic Sciences**  
*Jonathan G. McGrath, PhD\**
- 1:30 p.m. - 1:45 p.m. **B183** **Forensic Science Education: Future-Proof or Flawed Paradigm?**  
*Scott Chadwick, PhD\**; *Claude Roux, PhD*
- 1:45 p.m. - 2:00 p.m. **E114** **Addressing the Challenge of Conducting Undergraduate Research in Forensic Science Academic Programs Using a Course-Based Undergraduate Research Experience (CURE)**  
*Kimberly S. Koboжек, MS\**; *Pamela A. Marshall, PhD*; *Ken G. Sweat, PhD*; *Jennifer Broatch, PhD*; *Jennifer Foltz-Sweat, PhD*; *Anthony B. Falsetti, PhD*
- 2:00 p.m. - 2:15 p.m. **E115** **The Use of Large-Scale Faux Crime Scenes and Cold Case Coursework to Teach Forensic Science in Social Science-Based Coursework**  
*Michelle Rippey\**
- 2:15 p.m. - 2:30 p.m. **E116** **The Educational Outreach Program at the Defense Forensic Science Center (DFSC)**  
*Rachel L. Creager*; *Thomas A. Meyer, MS*; *Henry P. Maynard III, MSFS\**
- 2:30 p.m. - 2:45 p.m. **E117** **Improving Forensic Science Information Seeking**  
*Laura Sare\**; *Sarah Bankston, MS\**; *Jeffery K. Tomberlin, PhD\**; *Samantha J. Sawyer, BS\**
- 2:45 p.m. - 3:00 p.m. **E118** **A Journal of Our Own: *The Journal of Forensic Science Education*—The Official Publication of the Council of Forensic Science Educators**  
*Lawrence Quarino, PhD\**; *Kelly M. Elkins, PhD*; *Adrienne L. Brundage, PhD*
- 3:00 p.m. - 3:15 p.m. Break



## GENERAL

---

### Decomposition

---

Moderator: Daniel Marion, PhD  
Denver, CO

- 3:15 p.m. - 3:30 p.m.    **E119**    **Is the Decentralization of Forensic Capabilities Providing an Opportunity for Forensic Science to Reach the End of the Crossroads?**  
*Claude Roux, PhD\**; *Eoghan Casey, PhD*; *Frank Crispino, PhD*; *Olivier Delémont, PhD*;  
*Olivier Ribaux, PhD*
- 3:30 p.m. - 3:45 p.m.    **E120**    **Perceptions and Estimates of Error Rates in Forensic Science: A Survey of Forensic Analysts**  
*Daniel C. Murrie, PhD\**; *Brett O. Gardner, PhD*; *Sharon Kelley, PhD*; *Kellyn Blaisdell, BA*
- 3:45 p.m. - 4:00 p.m.    **E121**    **Response of Soil Microbial Communities to Mammal Decomposition During Above-Ground and Subsurface Decomposition: A Comparison**  
*Chawki Bisker, MSc\**
- 4:00 p.m. - 4:15 p.m.    **E122**    **Forensic Archaeology and Search Strategies for Clandestine Burials: Geographic Profiling in Reverse and “Winthroping”**  
*Sharon K. Moses, PhD\**
- 4:15 p.m. - 4:30 p.m.    **E123**    **Interagency Cooperation in the Recovery of Human Remains and Human Remains**  
*Rebecca Wood, MFS\**; *Francisco J. Diaz, MD\**
- 4:30 p.m. - 4:45 p.m.    **E124**    **The Identification of Necrophagous Insect Species by Ambient Ionization Mass Spectrometry and Chemometrics for Postmortem Interval Estimations**  
*Rabi A. Musah, PhD\**; *Samira Beyramysoltan, PhD*; *Justine E. Giffen, BS*; *Jennifer Rosati, PhD*
- 4:45 p.m. - 5:00 p.m.    **E125**    **The Ability of Cotton, Polyester, and Wool to Retain Diatomaceous Evidence Following Submersion to Study the Postmortem Submersion Interval (PMSI)**  
*Alexandra Rizzuto, BS*; *Jillian Conte, PhD\**