### Wednesday

#### Poster Session

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

*Presenting Author
**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**
## 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. Sebetal, 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*
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*; Jyeong 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; Tachwa 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; Rosalyn 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

*Presenting Author
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
**Co-Moderator:** Gregory M. Dickinson, MD
Missoula, MT
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  
**Co-Moderator:** Carlos A. Gutierrez, MS  
**United States Army Criminal Investigation Division**  
**Fort Bragg, NC**

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 Montanta, 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*

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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; Kathryne 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

*Presenting Author
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*

12:00 p.m. - 1:15 p.m.  E90 What Do Latent Print Examiners Want in a Statistical Model?  
Anthony Koertner, MS*

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

*Presenting Author
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 Clonazolam, 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  Anabolics 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 Mutavdíc Pavlović, 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 Rzhhevskii, 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  
İnci Y. Tetzbasan, BSc*; Umit Ertém, 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  
Isabilla 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 | Co-Moderator: Micah Rush, MSFS |
| United States Army Criminal Investigation Command | Fort Benning Criminal Investigation Battalion |
| Fort Campbell, KY | 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. Kobojek, 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 Rippy*

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

*Presenting Author
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 “Winthropping” Sharon K. Moses, PhD*

4:15 p.m. - 4:30 p.m. E123 Interagency Cooperation in the Recovery of Human Cremains 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 Beyramysooltan, 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*