**Anthropology**

11:30 a.m. - 1:00 p.m. **A1**  
*The Introduction of a Cranial Gunshot Trauma Photographic Atlas*  
*Tessa Somogyi, MA*; *Elizabeth A. Evangelou, MA*; *Kevin E. Sheridan, PhD*;  
*Elizabeth A. DiGangi, PhD*

11:30 a.m. - 1:00 p.m. **A2**  
*Fusion and Fracture: Forensic Implications of the Hyoid Bone*  
*Laura C. Fulginiti, PhD*; *Andrew C. Seidel, PhD*; *Katelyn L. Bolhofner, PhD*

11:30 a.m. - 1:00 p.m. **A3**  
*The Frequency and Pattern of Cardiopulmonary Resuscitation (CPR)-Related Fractures in an Infant Autopsy Sample*  
*Miriam E. Soto Martinez, PhD*; *Jason M. Wiersema, PhD*; *Julie M. Fleischman, PhD*;  
*Deborrah C. Pinto, PhD*; *Christopher Greeley, MD*; *Angela Bachim, MD*;  
*Marcella Donaruma-Kwoh, MD*; *Si Gao, MS*; *Laney R. Feeser, MA*

11:30 a.m. - 1:00 p.m. **A4**  
*A Random Forest Approach to False Start Analysis*  
*Kirsty Alsop, MSc*; *Waltraud Baier, PhD*; *Danielle Norman, PhD*; *Brian Burnett*;  
*Mark A. Williams, PhD*

11:30 a.m. - 1:00 p.m. **A5**  
*Revisiting Serrated vs. Non-Serrated Kerf Marks in Sharp Force Trauma (SFT) Analyses*  
*Keroshini Guynes*

11:30 a.m. - 1:00 p.m. **A6**  
*A Survey of Skeletal Trauma Within the Southeast Texas Applied Forensic Science Collection: A Wealth of Research Opportunity*  
*Jennifer R. Kiely, MS*; *Kate M. Lesciotto, PhD*; *Sheree R. Hughes, PhD*

11:30 a.m. - 1:00 p.m. **A7**  
*Homicide Fracture Pattern Frequencies by Sex and Geographic Location*  
*Cortney N. Hulse, MA*; *Kyra E. Stull, PhD*; *Laura D. Knight, MD*

11:30 a.m. - 1:00 p.m. **A8**  
*Patterning of Projectile Trauma Associated With a Historic World War II Battlefield Site*  
*Willa R. Trask, PhD*; *Rebecca J. Wilson-Taylor, PhD*

11:30 a.m. - 1:00 p.m. **A9**  
*Communist Human Rights Violations in Poland (1944–1956): A Forensic Anthropological Perspective*  
*Krzysztof Fluder, MSc*; *Matteo Borrini, PhD*; *Constantine Eliopoulos, PhD*

11:30 a.m. - 1:00 p.m. **A10**  
*Sex Estimation of a Croatian Population Based on Computed Tomography (CT) Scans of the Crania*  
*Carolane Radman, MD*; *Zeljana Basic, PhD*; *Dragan Primorac, MD, PhD*; *Ivana Kruzic, PhD*

11:30 a.m. - 1:00 p.m. **A11**  
*A Preliminary Study of Sex Determination Using the Alveolar Ridge in Korean Adults*  
*Dong-Ho Eddie Kim, BSc*; *U-Young Lee, MD, PhD*; *Yi-Suk Kim, MD, PhD*  
*(FSF Emerging Forensic Scientist Award Poster Presentation)*

11:30 a.m. - 1:00 p.m. **A12**  
*Applying Posterior Probability Thresholds to Traditional Cranial Trait Sex Estimation Methods*  
*Patricia Avent; Cris E. Hughes, PhD*; *Heather M. Garvin, PhD*

11:30 a.m. - 1:00 p.m. **A13**  
*Sex Estimation of Skulls and Crania From Colombia Using MorphoPASSE Program v1.0*  
*Justin R. Maiers, MS*; *Daniela Santamaria Vargas, BA*; *Elizabeth A. DiGangi, PhD*;  
*Jonathan D. Bethard, PhD*  
*(FSF Emerging Forensic Scientist Award Poster Presentation)*

*Presenting Author  
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<tr>
<td>11:30 a.m.</td>
<td>A14</td>
<td>The Relationship of Enthesis Size to Muscle Size and Sexual Dimorphism in the Cranium and Clavicle in New Zealand and Thai Populations</td>
<td>Jade S. De La Paz, MS*; Stephanie Woodley, PhD; Hallie Buckley, PhD; Siân Halcrow, PhD; Nawaporn Techataweewan, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>A15</td>
<td>The Utility of the Sacrum for Sex Estimation</td>
<td>Alexandra R. Klaes, PhD*; Ashley B. Maxwell, PhD</td>
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<tr>
<td>11:30 a.m.</td>
<td>A16</td>
<td>A Pilot Study of Geomorphometric Sex Estimation on the Pelvis</td>
<td>Emily Brooks, BA*; Theresa M. De Cree, BA*; Luis L. Cabo, MS; Nora Butterfield</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>A17</td>
<td>Establishing Postcranial Sex Estimation Criteria for Unidentified Migrants at the United States-Mexico Border</td>
<td>Stephanie Medrano, MA*; Molly A. Kaplan, MA*; Kate Spradley, PhD; Gillian M. Fowler, MSc; Cris E. Hughes, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>A18</td>
<td>An Evaluation of Patellar Measurements for Estimating Sex in African Americans</td>
<td>Eric Frauenhofer*</td>
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<tr>
<td>11:30 a.m.</td>
<td>A19</td>
<td>The Iliac Crest as a Skeletal Indicator of Puberty and Guide to Subadult Sex Estimation</td>
<td>Stephanie J. Cole, MS*; Kyra E. Stull, PhD; Marin A. Pilloud, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>A20</td>
<td>Age Estimation in a South African Sample of 224 Living Subjects Using the Cameriere (Bo/Ca) and Tanner–Whitehouse 2 (TW2) Methods</td>
<td>Francesco De Micco, MBBS*; Nikolaos Angelakopoulos; Federica Martino, MD; Graziamaria Corbi, PhD; Roberto Cameriere; Carlo P. Campobasso, MD, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>A21</td>
<td>A Computed Tomographic Evaluation of the Vertebrochondral Joint for Age Estimation</td>
<td>Rutwik D. Shedge, MSc*; Tanuj Kanchan, MD; Shilpi Gupta Dixit, MD; Pawan K. Garg, MD; Varsha Warrier</td>
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<tr>
<td>11:30 a.m.</td>
<td>A22</td>
<td>Age Estimation Using a Radiation-Free Medical Method: An Analysis of Carpal Bones by Magnetic Resonance Imaging (MRI)</td>
<td>Roberto Scendoni*; Mariano Cingolani, MD; Francesco De Micco, MBBS*; Roberto Cameriere</td>
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<tr>
<td>11:30 a.m.</td>
<td>A23</td>
<td>A Computed Tomographic Analysis of Medial Clavicular Epiphyseal Fusion for Age Estimation in an Indian Population</td>
<td>Rutwik D. Shedge, MSc*; Tanuj Kanchan, MD; Pawan K. Garg, MD; Shilpi Gupta Dixit, MD; Varsha Warrier; Pushpinder Khera, MD; Kewal Krishan, PhD</td>
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<td>11:30 a.m.</td>
<td>A24</td>
<td>Estimating Age From 2D and 3D Imaging of Skeletal Remains: An Assessment of Reliability Using the Medial Clavicle</td>
<td>Sarah H. Ghannam, MA*; Brittany S. Walter, PhD*; William R. Belcher, PhD</td>
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<td>11:30 a.m.</td>
<td>A25</td>
<td>The McKern-Stewart Method as a Technique for Analyzing Age-Related Pubic Symphyseal Changes: A Systematic Review and Meta-Analysis</td>
<td>Varsha Warrier*; Rutwik D. Shedge, MSc; Tanuj Kanchan, MD; Kewal Krishan, PhD</td>
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<tr>
<td>11:30 a.m.</td>
<td>A26</td>
<td>Skeletal Age Estimation From Pubic Symphysis: A Systematic Review of the Suchey-Brooks Method</td>
<td>Tanuj Kanchan, MD*; Surjit Singh, MD; Varsha Warrier; Rutwik D. Shedge, MSc</td>
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<tr>
<td>11:30 a.m.</td>
<td>A27</td>
<td>The Age-Informative Value of the Pubic Symphysis Compared to Other Skeletal Traits in a Chilean Sample Using Transition Analysis</td>
<td>Jacqueline Galimany, MA*; Sara M. Getz, PhD</td>
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POSTER SESSIONS

11:30 a.m. - 1:00 p.m.  A28  Testing the Traits of TA3: Setting a Baseline for Method Development and Performance  
Sara M. Getz, PhD*; Patrick D. Byrnes, PhD

11:30 a.m. - 1:00 p.m.  A29  Aging From Cranial Suture Closure  
Sittiporn Ruengdit, PhD*; D. Troy Case, PhD; Pasuk Mahankanukrauh, MD

11:30 a.m. - 1:00 p.m.  A30  Does Age Matter?! An Age Study on Maxillary Sinus Morphologies in Human Identification  
Teresa M. Runge, MS*; Joel D. Irish, PhD; Alicia Ventresca Miller, PhD; Matteo Borrini, PhD  
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m.  A31  The Use of High-Resolution Computed Tomography (CT) to Explore Age-Related Trabecular Change in Human Ribs  
Sophia Mavroudas, MA*; Victoria M. Dominguez, PhD; Devora S. Gleiber, MA

11:30 a.m. - 1:00 p.m.  A32  An Age-at-Death Estimation in a Contemporary Australian Population Using Femoral Histomorphometry  
Ariane Maggio, MFS*; Daniel Franklin, PhD

11:30 a.m. - 1:00 p.m.  A33  Automated Techniques for Cortical Bone Histological Variable Segmentation and Image Enhancement  
Mary E. Cole, PhD*; Reed A. Davis, MS; Joshua T. Taylor; Janna M. Andronowski, PhD

11:30 a.m. - 1:00 p.m.  A34  The Longitudinal Effects of Prolonged Opioid Use on Cortical Bone Remodeling in a Rabbit Model: Part I—Intraskeletal Variability and Regional Differences Detected Via Micro-Computed Tomography (Micro-CT)  
Janna M. Andronowski, PhD*; Mary E. Cole, PhD; Reed A. Davis, MS; Adam J. Schuller, BS; Abigail R. LaMarca; Gina R. Tubo

11:30 a.m. - 1:00 p.m.  A35  Group-Specific Label Use in Anthropology: A Review of the Journal of Forensic Sciences, 2010–2019  
Erin B. Waxenbaum, PhD*

11:30 a.m. - 1:00 p.m.  A36  Population Variation in the Occurrence of Midline and Canine Diastemata  
Cassie E. Skipper, MA*; SaMoura L. Horsley*; Dori E. Kennessey, BA; Tatiana Vlemincq-Mendieta, MS; G. Richard Scott, PhD; Marin A. Pilloud, PhD

11:30 a.m. - 1:00 p.m.  A37  Fluctuating Asymmetry: A Craniofacial Comparison to Better Understand Central American and Mexican Migration  
Stephanie Medrano, MA*; Kate Spradley, PhD; Katherine E. Weisensee, PhD

11:30 a.m. - 1:00 p.m.  A38  Vertebral Neural Canal (VNC) Dimensions in Contemporary Subadult Samples: Indicators of Stress, Population Variation, or Both?  
Louise K. Corron, PhD*; Christopher A. Wolfe, MA; Kyra E. Stull, PhD

11:30 a.m. - 1:00 p.m.  A39  Integrating the Biocultural Profile Into the Identification Process at the Louisiana State University Forensic Anthropology and Computer Enhancement Services (LSU FACES) Laboratory  
Emily F. Michon, MA*; Sophia I. Reck, MA; Ginesse A. Listi, PhD; Teresa V. Wilson, PhD

11:30 a.m. - 1:00 p.m.  A40  Caseloads in Forensic Anthropology  
Nicholas V. Passalacqua, PhD*; Marin A. Pilloud, PhD; Casey Philbin, PhD

11:30 a.m. - 1:00 p.m.  A41  The Impact of Forensic Anthropology Manuscripts in the American Journal of Physical Anthropology  
Rhian Dunn, MS*; Nicholas V. Passalacqua, PhD; Joseph T. Hefner, PhD; Katie Zejdlik, PhD

*Presenting Author

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<td>11:30 a.m.</td>
<td>A42</td>
<td>Consistency in Validation: Categorizing Validation Studies in Forensic Anthropology</td>
<td>Angela M. Dautertas, PhD*; Kelly Sauerwein, PhD</td>
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<td>11:30 a.m.</td>
<td>A43</td>
<td>A Hierarchy of Expert Performance as Applied to Forensic Anthropology</td>
<td>Stephanie Hartley, BA*; Allysha P. Winburn, PhD</td>
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<td>11:30 a.m.</td>
<td>A44</td>
<td>Reliability and Biasability of Sectioning-Point-Based Sex Estimation</td>
<td>Stephanie Hartley, BA*; Allysha P. Winburn, PhD; Itiel Dror, PhD</td>
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<tr>
<td>11:30 a.m.</td>
<td>A45</td>
<td>The Effects of Enhanced Quality Control (QC) Measures on Forensic Anthropological Practice</td>
<td>Raphaela M. Meloro, MA*; Allysha P. Winburn, PhD; Valerie DeLeon, PhD</td>
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<tr>
<td>11:30 a.m.</td>
<td>A46</td>
<td>Improving Radiographic Visualization of the Frontal Sinus for Scientific Identification</td>
<td>Erica R. Christensen, MS*; Laura K. Scheid, MS; Jered B. Cornelison, PhD; Christine M. Pink, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>A47</td>
<td>A Pilot Study on Measurement Error on 2D and 3D Images in Forensic Anthropological Applications</td>
<td>Theresa M. De Cree, BA; Emily Brooks, BA; Victoria Lamond, BA*; Samantha LaFrance, BA*; Luis L. Cabo, MS</td>
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<tr>
<td>11:30 a.m.</td>
<td>A48</td>
<td>The Utility of Digital Imaging Technologies for the Virtual Curation and Metric Analysis of Skeletal Remains</td>
<td>Devin L. Adcox*; Tiffany B. Saul, PhD</td>
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<td>11:30 a.m.</td>
<td>A49</td>
<td>3D Web-Based Technologies to Support Interactive Forensic Anthropology Databases</td>
<td>Terrie Simmons-Ehrhardt, MA*</td>
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<td>11:30 a.m.</td>
<td>A50</td>
<td>Back Together: An Innovative Procedure For Cranial Reconstruction as an Aid for Human Identification</td>
<td>Matteo Borrini, PhD*; Satu Valoriani, PhD</td>
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<td>11:30 a.m.</td>
<td>A51</td>
<td>The Application of Standardized Skeletal Inventory Methods to Fragmented Subadult Cranial Remains</td>
<td>Andrea Palmiotto, PhD*</td>
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<tr>
<td>11:30 a.m.</td>
<td>A52</td>
<td>A Metric Approach to Human and Non-Human Species Identification of Skeletal Remains Using Machine Learning</td>
<td>Heather M. Garvin, PhD*; Michael W. Kenyhercz, PhD; Rachel Dunn, PhD; Sabrina Sholts, PhD; M. Schuyler Litten, MA</td>
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<tr>
<td>11:30 a.m.</td>
<td>A53</td>
<td>A Comparison of the Accuracy of Identification Between Non-Human and Human Skeletal Elements</td>
<td>Kaitlyn Klein, BS*; Holly A. Long, BS*; Summer B. Shipley, BS*</td>
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<td>11:30 a.m.</td>
<td>A54</td>
<td>Portable Laser-Induced Breakdown Spectroscopy (LIBS) for the Categorization of Human Skeletal Remains</td>
<td>Kelsi Kuehn, MA*; Matthieu Baudelet, PhD; Jonathan D. Bethard, PhD</td>
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<td>11:30 a.m.</td>
<td>A55</td>
<td>Choose Your Own (Accreditation) Adventure in the Defense POW/MIA Accounting Agency’s (DPAA’s) Isotope Testing Program: Part I—Sample Preparation</td>
<td>Amelia J. Edwards, MS*; Lesley A. Chesson, MS; Thuan H. Chau, MS; Vincent J. Sava, MA; Gregory E. Berg, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A56</td>
<td>Choose Your Own (Accreditation) Adventure in the Defense POW/MIA Accounting Agency (DPAA) Isotope Testing Program: Part II—Sample Analysis</td>
<td>Lesley A. Chesson, MS*; Thuan H. Chau, MS; Amelia J. Edwards, MS; Hannah Dibner, MS; Gregory E. Berg, PhD</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>A57</td>
<td>Validating Isoscaping Methods: A Study of Oxygen, Strontium, and Sulfur</td>
<td>Tamara Tyner, MA*; Daniel J. Wescott, PhD; Nicholas P. Herrmann, PhD; Tiffany B. Saul, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A58</td>
<td>Mass Grave Localization Prediction With Geographical Information Systems in Guatemala and Future Impacts</td>
<td>Perla Santillan, MS*; Scott Edwards, PhD; Jenise Swall, PhD; Tal Simmons, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A59</td>
<td>The Importance of Hand-Drawn Maps in Forensic Archaeological Recoveries</td>
<td>Anthony V. Lanfranchi, BS*; Kristine A. Kortonick, BS*; Victoria Lamond, BA*</td>
</tr>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A60</td>
<td>Shining a Light on Forensic Anthropology: The Use of Alternative Light Sources (ALS) to Detect Skeletal Remains Underwater</td>
<td>Catherine Maidment*; Anna Williams, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A61</td>
<td>Variation in Bone Shrinkage Due to Thermal Exposure: A Patellar Case Study</td>
<td>Ashley B. Maxwell, PhD*; Alexandra R. Klaales, PhD; Brailey Moeder</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A62</td>
<td>The Implications of Thermal Alteration on Osteometry</td>
<td>Maritza Liebenberg, BSc*; Leandi Liebenberg, MS; Gabriele C. Kruger, MSc; Ericka N. L'Abbe, PhD</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>A63</td>
<td>Burned Bodies: Positional Change in Decomposed and Fresh Human Remains</td>
<td>Petra Banks, MA*; Mariah E. Moe, MA; Courtney C. Siegert, MA; Sophia Mavroudas, MA; Steve Seddig, BS; Nicholas P. Herrmann, PhD; Timothy P. Gocha, PhD; Daniel J. Wescott, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A64</td>
<td>Mattress Fires and Their Effect on the Destruction and Distribution of Remains in a House Fire Setting</td>
<td>Nicole H.W. Schwalbach, MA* (FSF Emerging Forensic Scientist Award Poster Presentation)</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A65</td>
<td>Pack Rats: An Unconsidered Taphonomic Variable</td>
<td>Carlos J. Zambrano, PhD*; Kent J. Buehler, MA; Angela Berg, RN</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A66</td>
<td>Phase II Spatial Patterning of Vulture-Scavenged Human Remains</td>
<td>Molly Miranker, MA*; Alberto Giordano, PhD; Kate Spradley, PhD</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>A67</td>
<td>Vulture and Black-Backed Jackal Scavenging: Forensic Implications for the Recovery of Scattered Remains in South Africa</td>
<td>Craig A. Keyes, MS*; Jolandaie Myburgh, PhD; Desiré Brits, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A68</td>
<td>Taphonomic Alterations of Skeletal Remains Within a Subtropic Region: A Key West Cemetery</td>
<td>Fatima Sato, BS*; Heather A. Walsh-Haney, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A69</td>
<td>Taphonomic Effects of Acidic Soil on Human Remains in Japan: A Preliminary Study</td>
<td>Brian D. Padgett, PhD*</td>
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11:30 a.m. - 1:00 p.m.  A70  The Application and Implication of Radiocarbon Dating in Forensic Case Work: When Medicolegal Significance Meets Archaeological Relevance
Benoit Bertrand, PhD*; Philippe Morbidelli, MD; Anne A. Becart, DDS, PhD; Pascale Richardin, PhD; Didier Gosset, MD, PhD; Vadim Mesli, MD; Valéry C. Hédouin, MD, PhD

11:30 a.m. - 1:00 p.m.  A71  Investigating the Extent of Bone Diagenesis in Short Timescales Through a Histological Approach
Caley A. Mein*; Anna Williams, PhD

11:30 a.m. - 1:00 p.m.  A72  The Growth of Bryozoan Colonies on Immersed Human Bones: How Can It Help to Estimate the Minimum Postmortem Interval?
Vadim Mesli, MD*; Benoit Bertrand, PhD; Quentin Scanvion, MD; Didier Gosset, MD, PhD; Valéry C. Hédouin, MD, PhD

11:30 a.m. - 1:00 p.m.  A73  An Analysis of Clothed Pig Proxies (Sus Scrofa) When Cold Temperatures Are Present in Central Illinois
Katharine C. Woollen, MS*

11:30 a.m. - 1:00 p.m.  A74  Decomposition in the Sonoran Desert During the Summer
Kaitlyn J. Fulp, BA*; Meghan M. Gast; Jacob A. Harris, PhD; Katelyn L. Bolhofner, PhD

Odontology

11:30 a.m. - 1:00 p.m.  G1  Limousine Fire
Roland G. Chew, DDS*

11:30 a.m. - 1:00 p.m.  G2  Intra-Alveolar Photogrammetry Scanning of Empty Dental Sockets of Teeth Missing Postmortem for Root Morphology Analysis: A Case Study
Domenico Dellaia, DDS*; Carlo Robino; Greta Cena, MD; Elena Chierto, PhD; Emilio Nuzzolese, PhD*

11:30 a.m. - 1:00 p.m.  G3  The Correlation Between Root Translucency, Calcium Hydroxyapatite Content, and DNA Preservation in Teeth for Unidentified Human Remains (UHR) Investigations
Paul M. Yount*; Virginia M. Maxwell, DPhil; James M. Lewis, DMD; Thomas J. David, DDS; Murray K. Marks, PhD; Paula Brumit, DDS; Angie Ambers, PhD

11:30 a.m. - 1:00 p.m.  G4  Cementum Annuli: Technique, Microscopy, and Age Estimation
Michael Clay, DMD*; James M. Lewis, DMD; Paula Brumit, DDS; Murray K. Marks, PhD

11:30 a.m. - 1:00 p.m.  G5  Obstructive Sleep Apnea-Hypopnea Syndrome (OSAHS): Medicolegal Implications and the Role of the Dentist in a Multidisciplinary Approach
Francesca Zangari, MD*

Toxicology

11:30 a.m. - 1:00 p.m.  K1  The Effect of COVID-19 and Texas’s Phased Reopening Plan on Ethanol Concentrations in Driving While Intoxicated (DWI) Cases in Harris County, Texas
Grayce Behnke, MS*; Teresa R. Gray, PhD

11:30 a.m. - 1:00 p.m.  K2  Lethal Self-Poisoning by Ingestion of Yew (Taxus Baccata, Taxacées): Two Case Reports
Bérengère Daurtreme, MD*; Fabien Lamoureux, PharmD, PhD; Anne-Claire Lhoumeau, MD; Elodie Saussereau, PharmD; Gilles P.
POSTER SESSIONS

11:30 a.m. - 1:00 p.m. K3 Phencyclidine (PCP) Prevalence and Demographics in Driving While Intoxicated/Driving Under the Influence of Drugs (DWI/DUID) and Postmortem Casework in Harris County, Texas, 2013–2018 Britni N. Skillman, PhD*; Crystal Arndt, MSFS; Teresa R. Gray, PhD

11:30 a.m. - 1:00 p.m. K4 The Return on Investment From Reducing Turnaround Time for Processing Driving Under the Influence (DUI) Drug Cases Paul Speaker, PhD*

11:30 a.m. - 1:00 p.m. K5 A Validated Method for the Quantitative Determination of Isotonitazene in Hair by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) Shaiju Vareed, PhD*; Ernest D. Lykissa, PhD

11:30 a.m. - 1:00 p.m. K6 A Suicidal Sodium Nitrite/Nitrate Ingestion Outbreak in Houston, Texas Erin C. Strickland, PhD*; Varsha Podduturi, MD; Teresa R. Gray, PhD

11:30 a.m. - 1:00 p.m. K7 A Suspected Case of Attempted Homicide by Rodenticides Administration: How Hair Analysis Can Help Us in Solving the Mystery Claudia Carelli*; Paolo Fais, PhD; Francesca Freni; Matteo Moretti, MD; Claudia Vignali; Luca Morini

11:30 a.m. - 1:00 p.m. K8 A Veterinary Forensics Review of Pesticide Toxicity in Canines Luette Muir, BS*; Julia Perkinson, BS; Ngaio Richards, PhD; Susan C. Underkoffler, MFS; Judith Rodriguez Salas, MS; Karen S. Scott, PhD

11:30 a.m. - 1:00 p.m. K9 Measurement Uncertainty (MU): A Novel Quality Assurance Use in Forensic Toxicology for Internal Proficiency Testing William M. Schroeder II, MS*; Frederick Strathmann, PhD; Laura M. Labay, PhD

11:30 a.m. - 1:00 p.m. K10 False Positive Emit II Plus Ecstasy Assay Due to Bupropion Maja Jelena Cop*; Sandra Mudric

11:30 a.m. - 1:00 p.m. K11 Expanding Frontiers in Postmortem Toxicology: Drug Tracing in Different Postmortem Matrices During Human Decomposition Using Ultra High-Performance Liquid Chromatography–High-Resolution Mass Spectrometry (UHPLC-HRMS) Katharina M. Höland, MSc*; Shawn R. Campagna, PhD; Amanda May, PhD; Hayden Mckee, MSc; Mary C. Davis, MSc; Sarah Schwing, BA, BSc; Thomas Delgado; Charity G. Owings, PhD; Allison R. Mason, BS; Jennifer M. DeBruyn, PhD; Dawnie W. Steadman, PhD; Russell L. Zaretzki, PhD

11:30 a.m. - 1:00 p.m. K12 An Analysis of Tramadol and Its Metabolites in Rat Skeletal Tissues Following Acute and Repeated Dose Patterns Using High-Performance Liquid Chromatography Tandem Mass Spectrometry (HPLC/MS/MS) Christian Buckingham, BSc*; James Watterson, PhD

11:30 a.m. - 1:00 p.m. K13 A Fatal Poisoning of Four Workers at a Farm: The Distribution of Hydrogen Sulfide (H₂S) and Thiosulfate(TS) in Different Biological Matrices Chiara Siodambro*; Matteo Moretti, MD*; Luca Morini; Gulnaz T. Javan, PhD; Francesca Freni; Claudia Vignali; Claudia Carelli

11:30 a.m. - 1:00 p.m. K14 The Development of a Simultaneous Separation and Identification Ultra Performance Liquid Chromatography/High-Performance Liquid Chromatography (UPLC/HPLC) Tandem Mass Spectrometry (MS/MS) Screening Method for Sulfur-Containing Fentanyl Analogs (SFA) Amber D. Budmark, BS*; Justin L. Poklis, BS; Grace R. Williams, PhD; Carl E. Wolf II, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)
POSTER SESSIONS

11:30 a.m. - 1:00 p.m. **K15** New Perspectives in Postmortem Diagnosis of Acute Heroin Abuse
Gianpietro Volonnino*; Andrea Costantino, MD; Sara Turco, MD; Alice Chiara Manetti, MD; Silvia Romano; Valentina Fazio; Paola Santoro, MD; Raffaele La Russo, MD

11:30 a.m. - 1:00 p.m. **K16** Patterns of Natural Cannabinoids in Hair
Ryan B. Paulsen, PhD*; Virginia Hill, BS; Neil Stowe, PhD; Michael I. Schoffer, PhD

11:30 a.m. - 1:00 p.m. **K17** Analysis of Fentanyl Analogs and Common Drugs
Madison N. Martin, BA*; Steven W. Fleming, MS; Emily Bouso Raley, MSFS; Lauren L. Richards-Waugh, PhD

11:30 a.m. - 1:00 p.m. **K18** Transforming Toxicology in South Africa—Illustrating Proof of Concept Using Data From Routine Carboxyhemoglobin (COHb) Analysis
Jade Mader, MSc*; Bronwen B. Davies, MFS

11:30 a.m. - 1:00 p.m. **K19** A Four-Year Comparison (2016–2019) of Toxicology Results in Suicide-Related Deaths From the West Tennessee Regional Forensic Center in Memphis, Tennessee
Nicole Bracewell, MSc*; Danielle Harrell, DO; Katrina Van Pelt, DO

11:30 a.m. - 1:00 p.m. **K20** Hydroxycocaine Concentrations in Head and Body Hair as Determined by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)
Neil Stowe, PhD*; Ryan B. Paulsen, PhD; Virginia Hill, BS; Michael I. Schoffer, PhD

11:30 a.m. - 1:00 p.m. **K21** Unusual Routes for Substance Abuse: Fatal Inhalation of a Fentanyl Patch
Federico Manetti, MD*; Martina Padovano, MD; Matteo Scopetti, MD; Maria Chiara David, PhD; Alessandro Santurro, MD; Antonio Grande, MD, PhD

11:30 a.m. - 1:00 p.m. **K22** Trends in Drug-Facilitated Crime and Sexual Assault in San Francisco, California
Mairin M. Higgins*; Crystal N. Jarquin, BS; Jennifer Olivero, BS; Karen S. Scott, PhD; Luke N. Rodda, PhD

11:30 a.m. - 1:00 p.m. **K23** Postmortem Toxicology Trends in the United States Before and During the COVID-19 Pandemic
Stephanie Marco, PhD*

11:30 a.m. - 1:00 p.m. **K24** The Discovery of Gamma-Butyrolactone (GBL) in JUUL® E-Liquids
Alaina Holt, BS*; Michelle R. Peace, PhD; Justin L. Poklis, BS; Caroline O. Cobb, PhD

11:30 a.m. - 1:00 p.m. **K25** The Stability of Drug Analytes in Positive Umbilical Cord Tissue After Long-Term Frozen Storage
Emily Fenton, MBA*; Robert Paul Hessler, Jr., MS; Marykathryn Tynon Moody, MSFS; Karen S. Scott, PhD

11:30 a.m. - 1:00 p.m. **K26** The Evaluation of Extraction Parameters for the Analysis of Authentic Hair Reference Material (HRM) in Forensic Hair Testing Using Statistical Design of Experiments (DoE)
Brianna Spear*; Anthony P. DeCaprio, PhD

*Presenting Author

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**Criminalistics**

11:30 a.m. - 1:00 p.m. **B44** The Study of Using Next Generation Sequencing (NGS) Technologies to Analyze Mixed DNA Patterns  
Yungchun Lai*

11:30 a.m. - 1:00 p.m. **B45** A Performance Evaluation of the VeriFiler™ Plus Polymerase Chain Reaction (PCR) Amplification Kit for Single Cell Forensics  
Raimo Tanzi*; Roberta Aversa, MS; Francesca Fontana, MD; Claudio Forcato, PhD

11:30 a.m. - 1:00 p.m. **B46** lusSTR®: An Open-Source Python® Package for Translating Forensic Short Tandem Repeat (STR) Sequences Into Interpretable Formats  
Rebecca Mitchell, PhD*; Daniel S. Standage, PhD; Rebecca Just, PhD

11:30 a.m. - 1:00 p.m. **B47** A Routine Rape Case That Became Tricky (and Educational)  
Mark Benecke, PhD*

11:30 a.m. - 1:00 p.m. **B48** Increasing the Speed and Efficiency of DNA Extractions Using a Microwave Toward Increasing the Speed and Success of Rapid DNA Analysis  
Fabiana Taglia*; Ling Wang, PhD*; Kevin Lothridge, MSc; Robert I. O’Brien, BS; Bruce R. McCord, PhD; Steven B. Lee, PhD

11:30 a.m. - 1:00 p.m. **B49** Toward Developing a Forensically Relevant Single-Cell Pipeline by Incorporating Direct-to-Polymerase Chain Reaction (PCR) Extraction: Effects on Signal Quality and Allele Dropout  
Nidhi Sheth, MS*; Harish Swaminathan, PhD; Amanda J. Gonzalez, MS; Ken Duffy, PhD; Catherine M. Grgicak, PhD

11:30 a.m. - 1:00 p.m. **B50** Analyzing the Effect of Cleaning Products on Presumptive Blood Testing Kits  
Heather Kavaloski*; Adrienne Brundage, PhD  
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m. **B51** Recovery of DNA From Surfaces of Handguns: Targeting Relevant Sampling Areas  
Cynthia Cale, MS*; Jessica Miller, BS; Krista E. Latham, PhD; Erica Cantor, MS; Gay L. Bush, PhD

11:30 a.m. - 1:00 p.m. **B52** STK® Sperm Tracker as a Presumptive Test for Semen Stain Detection  
Jessica M. McLamb, MS*; Emily R. Cropper, MS; Susannah Kehl, MS; Mark F. Kavlick, PhD

11:30 a.m. - 1:00 p.m. **B53** Practical Applications of a Wet-Vacuum DNA Collection System  
Jessica M. McLamb, MS*; Mark F. Kavlick, PhD

11:30 a.m. - 1:00 p.m. **B54** Using Hybridization Capture to Obtain Mitochondrial Genomes From Forensically Relevant Canids: Assessing Sequence Variation for Species Identification  
Melissa K.R. Scheible, MS*; Kelly A. Meiklejohn, PhD

11:30 a.m. - 1:00 p.m. **B55** An Evaluation and Comparative Analysis of Rapid DNA Analysis and Direct Amplification  
Cynthia Cale, MS*; Robin D. Guidry, MS; Courtney Head, MS; Rebecca Ramsey, MS

11:30 a.m. - 1:00 p.m. **B56** Trends of Trace DNA Profiles in Forensic Casework: A Broad Case Study  
Katrina Welker, BS*; Amber L. Mayfield, BS*; Heather Mills, MS

*Presenting Author  
All times are in the U.S. Central Time Zone  
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11:30 a.m. - 1:00 p.m. **B57** Developmental Validation of the Quantifiler™ Trio Assay for the QuantStudio™ 7 Flex System  
Tracy Ferguson, MS*; Loni Wronka, MS; Rebecca Mitchell, PhD; Rebecca Just, PhD

11:30 a.m. - 1:00 p.m. **B58** Establishing a Regional DNA Database  
Ryan Gallagher, MS*; Ja’Neisha Hutley, MS; Brian Pfleegor, BS

11:30 a.m. - 1:00 p.m. **B59** The Correlation of Hair Morphology and Length to Mitochondrial DNA (mtDNA) Massively Parallel Sequencing (MPS) Results  
Lauren C. Canale, BS*; Gloria Dimick, MS; Jason Beckert, MS; Mitchell M. Holland, PhD

11:30 a.m. - 1:00 p.m. **B60** An Assessment of the NovaQUANT™ Human Nuclear and Mitochondrial DNA Quantitative Polymerase Chain Reaction (qPCR) Assay Using the National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) 2372a  
Emily R. Cropper, MS*; Mark F. Kavlick, PhD; Michael D. Coble, PhD

11:30 a.m. - 1:00 p.m. **B61** The Visualization of Seminal Stains on Dark Textiles  
Victoria Pieczynski, BS*; Celestina D. Rossi; Jorn Chi-Chung Yu, PhD

11:30 a.m. - 1:00 p.m. **B62** Indirect DNA Transfer—A Murder Case With Unexplained DNA Traces on a Spent Cartridge Case  
Katharina Helm, PhD*; Bettina Dunkelmann, PhD; Stefan Pittner, PhD; Harald J. Meyer; Fabio Carlo Monticelli; Franz Neuhuber, PhD

11:30 a.m. - 1:00 p.m. **B63** A Multivariate Statistical Approach for Enhancing Ancestry Prediction From Microhaplotype Data  
Chiara Della Rocca*, Fabio Oldoni, PhD; Eugenio Alladio, PhD; Andrea Berti, PhD; Filippo Barni, PhD; Fulvio Cruciani, PhD; Daniele S. Podini, PhD  
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m. **B64** The Biogeographic Origin and Genetic Characteristics of the Peopling of Jeju Island Based on Lineage Markers  
Sohee Cho, PhD*; Soong Deok Lee, PhD

11:30 a.m. - 1:00 p.m. **B65** The Optimization of DNA Extraction From Buccal Samples Collected With the CollectEject™ Oral Swab for High-Throughput Testing  
Megan M. Foley, MSFS*; Mona Pissarreck, BS

11:30 a.m. - 1:00 p.m. **B66** One Swab, Two Uses: Rapid DNA and Conventional DNA Testing  
Robert I. O’Brien, BS*; Tylor Barnhart, MS*; Becky Carter

11:30 a.m. - 1:00 p.m. **B67** The Identification of Various Body Fluids Obtained From the Crime Scene With Fourier Transform Infrared (FTIR) and Age Determination  
Shabnam Maharramli, BS*; Tugba Ünsal, PhD; Nurdan Kenan, MS; Kaan Yilancioglu, PhD; Sevil Atasoy, PhD

11:30 a.m. - 1:00 p.m. **B68** The Stability of Semenogelin-I (Sg-I) in Seminal Fluid and Seminal Stain on Various Fabrics Under Various Temperatures  
Supawon Srettabunjong, MD*; Pacharaporn Ruksakul, BSc; PattamaEkpo

11:30 a.m. - 1:00 p.m. **B69** Human Identification From Washed Semen Stains  
Tugba Ünsal, PhD*; Aysun Gungor, MS; Isil T. Erdogan, MS; Kaan Yilancioglu, PhD; Sevil Atasoy, PhD
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<tr>
<td>11:30 a.m.</td>
<td>B70</td>
<td>“The Sexome”: Identifying Unique Microbial Signatures in Male and Female Pairings</td>
<td>Natasha Nye, MS*; Brendan Chapman, BSc*</td>
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<tr>
<td>11:30 a.m.</td>
<td>B71</td>
<td>The Development of Epigenetic Methylation Markers for Skin/Sweat</td>
<td>Nicole Fernandez Tejero, BS*; Quentin T. Gauthier, MSFS; Bruce R. McCord, PhD</td>
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<tr>
<td>11:30 a.m.</td>
<td>B72</td>
<td>The Evaluation of Degraded Human DNA Samples Using the Illumina® Global Screening Array</td>
<td>David Russell, MS*; Carmen R. Reedy, PhD; Elayna Moreithi, MS; Christina Neal, MS; Mary Heaton, MS; Stephen Turner</td>
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<tr>
<td>11:30 a.m.</td>
<td>B73</td>
<td>Evaluating the Use of the M-Vac® Wet Vacuum System to Recover DNA From Cotton Fabric</td>
<td>Phillip Irion, BS*; Tina Moroose, MS; Casey Jelsema, PhD; Robert K. O’Brien, MS (FSF Emerging Forensic Scientist Award Poster Presentation)</td>
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<tr>
<td>11:30 a.m.</td>
<td>B74</td>
<td>Venturi Vacuum-Enhanced Collection and Recovery of Touch DNA Samples Coupled With Direct Polymerase Chain Reaction (PCR) for Forensic DNA Typing</td>
<td>Joseph M. Rahm, BS*; DeEtta Mills, PhD</td>
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<td>11:30 a.m.</td>
<td>B75</td>
<td>The Success Rate of Rapid DNA Technology in Genealogical Determination in Forensic Science</td>
<td>Nasibe Yagmur Kartal, BS*; Shabnam Maharramli, BS; Merve Erdem, BS; Tugba Ünsal, PhD; Kaan Yilancioglu, PhD; Sevil Atasoy, PhD</td>
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<td>11:30 a.m.</td>
<td>B76</td>
<td>GlobalFiler® IQC Amplification Kit Validation</td>
<td>David Jackson, MS*</td>
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<td>11:30 a.m.</td>
<td>B77</td>
<td>The Identification of Drugs in Powder Form With No Sample Preparation Via Headspace Solid-Phase Microextraction (SPME) and Gas Chromatography/Mass Spectrometry (GC/MS) Methods</td>
<td>Kymeri E. Davis, MS*; John V. Goodpaster, PhD</td>
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<td>11:30 a.m.</td>
<td>B78</td>
<td>The Effects of Degradative Stress on Vapor Analysis of Fentanyl</td>
<td>Leann Forte, BS*; Kenneth G. Furton, PhD; Lauryn DeGreeff, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)</td>
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<tr>
<td>11:30 a.m.</td>
<td>B79</td>
<td>Nuclear Magnetic Resonance (NMR) Spectroscopy as a Tool for the Quantitative Determination of Cannabinoids and Related Compounds in Sugary Beverages</td>
<td>Christopher L. Suiter, PhD*; Cheryle Beuning, PhD; Jason A. Widegren, PhD; Tara Lovestead, PhD</td>
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<tr>
<td>11:30 a.m.</td>
<td>B80</td>
<td>The Differentiation of Synthetic Cathinone Isomers by Gas Chromatography/Electron Ionization/Mass Spectrometry (GC/EI/MS) and Multivariate Analysis</td>
<td>Ruby E. Liliedahl, BS*; J. Tyler Davidson, PhD</td>
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<td>11:30 a.m.</td>
<td>B81</td>
<td>The Development of Colorimetric Methods for Marijuana Identification Via Mobile Phone Imaging</td>
<td>Griffin Cassata*; Brooke W. Kammrath, PhD; Anthony Provatas, PhD; Koby Kizzire, PhD</td>
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<td>11:30 a.m.</td>
<td>B82</td>
<td>The Power of Knowing Now: Rapid Drug Screening Using Atmospheric Solids Analysis Probe/Mass Spectrometry (ASAP/MS)</td>
<td>Michelle Wood, PhD*</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B83</td>
<td>Method Development for Separation and Quantitation of 17 Cannabinoids Using Gas Chromatography/Mass Spectrometry (GC/MS) and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)</td>
<td>Jerome Mulloor, MS*; Andrea Yarberry, PhD*; Walter Brent Wilson, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B84</td>
<td>The Detection of Chloroquine in Opium Using Gas Chromatography/Mass Spectrometry (GC/MS): A Toxic Adulterant</td>
<td>Tahir Jamshaid, MPhil*; Muhammad Usman, MS; Zahid Mahmood, MPhil; Imtiaz Hussain, MPhil; Abid Naseer, MS; Muhammad Taimoor Chaudhary, MPhil*; Mohammad A. Tahir, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B85</td>
<td>An Electrochemical Analysis of Fentanyl and Fentalogs Toward a Rapid Screening Assay</td>
<td>Natalie Sellnau, BS*; Frederique T. Deiss, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B86</td>
<td>Effective Field Analysis of Low-Dose Fentanyl Mixtures by Portable Vibrational Spectroscopy and Portable Gas Chromatography/Mass Spectrometry (GC/MS)</td>
<td>Kaitlin Farrell, BS*; Anthony DiDomenico, BS; David Schiering, PhD; Pauline E. Leary, PhD; Brooke W. Kammrath, PhD; Koby Kizzire, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B87</td>
<td>The Roles of Projectile Energy and Apparel Fabric Damage in Assessing the Magnitude of Long-Range Shooter Distances</td>
<td>Nicholas Gogola, BS*; Peter R. Valentin, MSFS (FSF Emerging Forensic Scientist Award Poster Presentation)</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B88</td>
<td>Forensic Textile Dye Analysis by Thermal Desorption Direct Analysis in Real-Time Mass Spectrometry (DART®-MS) and Raman Microscopy</td>
<td>Miquellie B. Bonner*; Ngee-Sing Chong; Mengliang Zhang, PhD*</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B89</td>
<td>The Effects of Sample Preparation Optimization on Soil Mineral Analysis by Particle Correlated Raman Spectroscopy (PCRS)</td>
<td>Nicholas Gogola, BS*; Hannah Garvin, BSc; Savannah Brown, BS; Brooke W. Kammrath, PhD; John A. Reffner, PhD; Peter R. De Forest, DCrim; Christopher S. Palenik, PhD; Peter de B. Harrington, PhD; Deborah Huck-Jones; Bridget O'Donnell, PhD; Andrew Whitely, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B90</td>
<td>An Evaluation of Score-Based Likelihood Ratios (SLRs) for Glass Data</td>
<td>Federico Veneri, MSc*; Danica Ommen, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B91</td>
<td>Newly Commercialized Recycled Paints: Are They as Variable as They Seem?</td>
<td>Laurianne Huard*; Cyril Muehlethaler, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B92</td>
<td>An Evaluation of Five Methods to Develop Latent Prints on Thermal Paper</td>
<td>Jenna M. Pregent, BS*; Tal Simmons, PhD; Janine Sadano, MS; Jennie Mouer, MS</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B93</td>
<td>The Impact of the Ultraviolet (UV) Region and Plane Polarized Light (PPL) Microspectrophotometry (MSP) in the Characterization and Differentiation of Black Automotive Fibers</td>
<td>Andra Lewis, MSFS*; Patrick Buzzini, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B94</td>
<td>Processing Gaps for 1,2-Indanedione (IND)</td>
<td>Lesly Barco, MFS*; Marisa Bender, MS; Kelli Edmiston; Kyle Tom, MS; Paul Stein, PhD; Ismail M. Sebetan, MD, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>B95</td>
<td>The Development of Systematic Approaches for Physical Fit Comparisons of Trace Materials</td>
<td>Meghan Prusinowski, MS*; Zachary B. Andrews; Evie K. Brooks, MS; Tatiana Trejos, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)</td>
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11:30 a.m. - 1:00 p.m.  **B96**  The Development of Odor Profiling Methods for the Detection of Contraband Firearms
Kirsten R. Nettles, BS*; Cameron P. Ford; Paola A. Prada-Tiedemann, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m.  **B97**  What’s That Lingering Smell? An Evaluation of Residual Decomposition Odor Volatiles in Colombian Territory
Emily A. DeRuyter*; Kirsten R. Nettles, BS; Paola A. Prada-Tiedemann, PhD;
Gabriel A. Bohorquez; Jorge Ulises Rojas Guevara, PhD; Martha X. Ochoa-Torres;
Juan David Cordoba Parra

11:30 a.m. - 1:00 p.m.  **B98**  Optimization Parameters of Fragmentary Voltage and Collision Energy for the Identification and Separation of N-Methyl-N-(2,4,6-Trinitrophenyl)nitramide (TETRYL) From Other Explosives With Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)
Milazim Tahiruka*; Blerim Olluri, PhD*; Andriana Surleva; Herolind Krasniqi*;
Xhemajl Ademaj, PhD*; Nedzad Korajlic, PhD

11:30 a.m. - 1:00 p.m.  **B99**  A Characterization of Ignitable Liquid Residues and Interfering Pyrolysis Products of Common Substrates in Forensic Fire Debris Analysis
Khalid S. Feras, MPhil*

11:30 a.m. - 1:00 p.m.  **B100**  Shotgun Hunting Fatalities—How to Be Wrong in Reconstruction! Pitfalls for the Medical Examiner and the Ballistics Expert: A Case Report
Alessandra Stellacci*; Luigi Buongiorno, MD*; Maricla Marrone, MD*;
Francesca Tarantino, MD*; Claudia Perrone, MD; Salvatore Moliterno, MD;
Lucia Nardelli; Francesco Vinci, MD*

11:30 a.m. - 1:00 p.m.  **B101**  An Adhesive Analysis of Various Tapes Using Laser-Induced Breakdown Spectroscopy (LIBS)
Madeleine Braun*; Rosemarie C. Chinni, PhD

11:30 a.m. - 1:00 p.m.  **B102**  The Application of Laser-Based Methods for the Analysis of Gunshot Residue (GSR) Originating From Modern Ammunition
Courtney H. Vander Pyl, MS*; Korina Menking-Hoggatt, MS; Claudia Martinez Lopez, PhD;
Tatiana Trejos, PhD

11:30 a.m. - 1:00 p.m.  **B103**  The Application of Wavelet Transform and Transfer Learning for Gasoline Classification Using a Hand-Held Raman Spectrometer
Ting-yu Huang, MS*; Jorn Chi-Chung Yu, PhD

11:30 a.m. - 1:00 p.m.  **B104**  Revisiting the Recovery of Defense Sprays From Fabrics
Shirly Montero, PhD; Thomas Cahill, PhD; Ringo Preciado*; Zev Goldberg, BS

11:30 a.m. - 1:00 p.m.  **B105**  The Detection of Lead-Free Inorganic and Organic Gunshot Residue (IGSR and OGSR) Using Laser-Induced Breakdown Spectroscopy (LIBS), Electrochemistry, and Machine Learning
Kourtney A. Dalzell*; Korina Menking-Hoggatt, MS; Colby E. Ott, MS; Tatiana Trejos, PhD;
Luis E. Arroyo, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m.  **B106**  A Comparison of Sampling Techniques of Surface and Bulk Dental Enamel for Analysis With Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)
Elora C.D. Wall, BS*; Joseph B.M. Turner, PhD; Tal Simmons, PhD

*Presenting Author
## POSTER SESSIONS

### Engineering & Applied Sciences

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<td>11:30 a.m.</td>
<td>D1</td>
<td>The Development of a Fracture Risk Evaluation Method by Computer Simulation That Reproduces Pressure Distribution on Bone Due to Compression and Striking</td>
<td>Sonoka Okura, BE*; Yasumi Ito, PhD; Yuki Kunugi; Yasuyuki Takano; Tatsuya Fukuoka, ME; Ryuichi Yamada; Yoshiyuki Kagiya, PhD; Tetsuya Nemoto, PhD</td>
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<td>11:30 a.m.</td>
<td>D2</td>
<td>A Novel, Data-Driven Approach to the Classification of Bloodstain Patterns</td>
<td>Tong Zou, MS*; Hal S. Stern, PhD*</td>
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<td>11:30 a.m.</td>
<td>D3</td>
<td>The Determination of Delta-9-Tetrahydrocannabinol (THC), Tetrahydrocannabinolic Acid (THCA), and Total THC in Seized Cannabis (Hemp and Marijuana) Samples by Liquid Chromatography With Ultraviolet Detection (LC-UV)</td>
<td>Walter Brent Wilson, PhD*; Maryam Abdur-Rahman</td>
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<td>11:30 a.m.</td>
<td>D4</td>
<td>A Hyperspectral Analysis of Fabrics Submerged in the Indian Ocean: An Innovative Way to Aid in the Estimation of the Time Human Remains Have Spent in Water</td>
<td>Elsie Beales, BSc*; Almantas Pivrikas, PhD; Paola A. Magni, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>D5</td>
<td>Forensic Investigative Issues in a Fireworks Production Factory Explosion</td>
<td>Gennaro Baldino, MD*; Cristina Mondello, MD, PhD; Chiara Stassi, MD; Antonio Bottari, MD; Elvira Ventura Spagnolo, MD, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>D6</td>
<td>Monte Carlo Uncertainty Analysis for the Measurement of Forensic Glass Using Neutron Activation Analysis and Laser Ablation-Inductively Coupled Plasma/ Mass Spectrometry (LA-ICP/MS)</td>
<td>Nicholas Sharp, PhD*; Ruthmara Corzo, PhD; Jamie L. Weaver, PhD; Blaza Toman, PhD; Maria Martinez, PhD; Eric B. Steel; Jose R. Almirall, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>D7</td>
<td>WITHDRAWN</td>
<td></td>
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<tr>
<td>11:30 a.m.</td>
<td>D8</td>
<td>A Fatal Hyperbaric Treatment Explosion Investigation Incorporating Engineering Simulations With Verification and Validation</td>
<td>Clarence B. Kemper III, BS*</td>
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### Jrisprudence

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>11:30 a.m.</td>
<td>F9</td>
<td>Expert Witness Testimony and Adaptive Speech Devices: Feasible Reality or Impractical Liability?</td>
<td>Kelly A. Grimsley, MFS*; Ismail M. Sebetan, MD, PhD*; Paul Stein, PhD*</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>F10</td>
<td>A Double Truth: When Scientific and Judicial Conclusions Are Divergent</td>
<td>Michela Ferrara, MD*; Mariarosaria David, MD, PhD; Stefania De Simone, MD*; Francesca Maglietta, MD*; Giuseppe Bertozzi, MD*; Santina Cantatore; Luigi Cipolloni, MD, PhD</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>F11</td>
<td>Post-Conviction DNA Testing: A Two-Year Summary of a Law School and University Collaboration to Identify and Evaluate Post-Conviction Cases</td>
<td>Katherine A. Roberts, PhD*; Paula Mitchell, JD; Nikki Herst-Cook, JD; Mehul B. Anjaria, MS</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>F12</td>
<td>The Application of Virtual Reality in Forensic Science</td>
<td>Jeff Cheng-Lung Lee, PhD*; Yuan Fang; Cheng Te Kuo; Szu Hao Lee</td>
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*All times are in the U.S. Central Time Zone*
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<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Presenting Authors</th>
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<tbody>
<tr>
<td>I6</td>
<td>Deviant Behavior in Relationships Between Humans and Animals</td>
<td>Linda Corsaletti*; Vincenzo Lusa, JD*</td>
</tr>
<tr>
<td>I7</td>
<td>The Relationship of Firearm Possession to Attachment Styles and Psychological Well-Being</td>
<td>Oktay Cavus, MSc*</td>
</tr>
<tr>
<td>I8</td>
<td>Trends in Suicide: A Postmortem Analysis of a 20-Year Case History</td>
<td>Giacomo Belli, MD*; Jessica Quaiotti, MD; Matteo Moretti, MD; Laura Scotti; Claudia Carelli; Vittorio Bolcato, MD; Antonio M.M. Osculati, MD</td>
</tr>
<tr>
<td>I9</td>
<td>Borderline Personality Disorder and Religion: An Unusual Marital Relationship</td>
<td>Lucia Tattoli, PhD*; Cristiano Barbieri, MD; Ignazio Grattagliano, PsyD; Caterina Bosco, MD; Giancarlo Di Vella, MD, PhD</td>
</tr>
<tr>
<td>I10</td>
<td>The Psychotic Development of a Personality Disorder in a Case of Double Homicide</td>
<td>Lucia Tattoli, PhD*; Cristiano Barbieri, MD; Ignazio Grattagliano, PsyD; Caterina Bosco, MD; Giancarlo Di Vella, MD, PhD</td>
</tr>
<tr>
<td>I11</td>
<td>Child Neglect or Chronic Diseases? An Overlap and a Matter for Experts</td>
<td>Luana Bonaccursò, MD*; Caterina Bosco, MD*; Elena Coppo, MD; Sara S. Rocalbuto, PsyD; Giuliana Mattioda, MD; Federica Mirri, MD; Francesco Lupariello, MD; Giancarlo Di Vella, MD, PhD</td>
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<tr>
<td>I12</td>
<td>Autoeroticism and Depression in Lockdown From COVID-19: Accidental Death in Combined Asphyxiophilia—Autoerotic Asphyxia by Nitrogen Inhalation and Secondary Effects of Trazodone</td>
<td>Luigi Buongiorno, MD*; Alessandra Stellacci; Marrone, MD; Francesca Tarantino, MD; Claudia Perrone, MD; Salvatore Moliterno, MD; Lucia Nardelli; Giuseppe Strisciullo, BES; Francesco Vinci, MD</td>
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<tr>
<td>I13</td>
<td>Family Mass Murders in Italy, 1990–2019</td>
<td>Fabio Innocenzi, MD*; Federica Doriguzzi Bozzo; Alessandro Gabriele, MD; Niccolò D. Melloni, MD; Giancarlo Di Vella, MD, PhD</td>
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<tr>
<td>I14</td>
<td>The Perpetrator-Victim Bond in Matricide: An Unusual Case</td>
<td>Caterina Bosco, MD*; Cristiano Barbieri, MD; Ignazio Grattagliano, PsyD; Lucia Tattoli, PhD*; Giancarlo Di Vella, MD, PhD</td>
</tr>
<tr>
<td>I15</td>
<td>Could a Psychogenic Death Occur? The Scientific Analysis of a Mysterious Biochemical Process</td>
<td>Isabella Aquila, MD, PhD*; Carmen Scalise, MD*; Valeria R. Aquila*; Matteo A. Sacco, MD; Fabrizio Cordasco, MD*; Fiorella Caputo, MD; Francesco Sicilia, MD*; Luigi De Aloe, MD; Pietrantonio Ricci, PhD*; Cristoforo Ricci, PhD</td>
</tr>
<tr>
<td>I16</td>
<td>Face Similarity Linkage: A Novel Biometric Approach to Sexually Motivated Serial Killer Victims</td>
<td>Sarah B. Hackett, MS*; Brendan Chapman, BSc; David Keatley</td>
</tr>
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*Presenting Author

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## Questioned Documents

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<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Presenters</th>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J18</td>
<td>Inconspicuous Writing Features: An Illustrated Glossary</td>
<td>Jacqueline A. Joseph, BA*</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J19</td>
<td>An Evaluation of Gray Value Measurements and Hyperspectral Imaging (HSI) as a Method for Differentiating Optical Characteristics of Porous-Tipped Pen Inks</td>
<td>Clarra G. Moore, BS*; Patrick Buzzini, PhD</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J20</td>
<td>Quantitative Support for Forensic Document Examination in an Open Set Using Random Forests</td>
<td>Madeline Q. Johnson, BA*; Danica Ommen, PhD; Alicia L. Carriquiry, PhD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>J21</td>
<td>Methods and Materials Used in Steganographic “Invisible Ink” Communications in Prison Facilities</td>
<td>Michael T. Adkins, MS*; Heidi H. Harralson, MA*; Larry S. Miller, PhD</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J22</td>
<td>The User’s Experience (UX) Process: Website Design for the Private Practitioner</td>
<td>Meredith DeKalb Miller, MFS*</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J23</td>
<td>The Application of the Data Augmentation Technique to the Data Generation in Handwriting Classification</td>
<td>Yoko Seki, MA*</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J24</td>
<td>Education and Training in Forensic Document Analysis Offered as an Elective Course to Undergraduate Forensic Science Students in Turkey</td>
<td>Zekai Genç, PhD; Sevil Atasoy, PhD*</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J25</td>
<td>Writer’s Cramp and Technology: Its Influence on Intra-Writer Handwriting Variability</td>
<td>Tassi Dalton, JD; Chris Rush, PhD; Larry S. Miller, PhD; Heidi H. Harralson, MA*</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J26</td>
<td>History and Recent Revisions to the Policies Regarding Testimony of Forensic Document Examiners in the State of Texas</td>
<td>Keelie Johnson, BS*; Sarah Pryor; Angela Roe, MSc</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>J27</td>
<td>Relationships Between Handwriting Slant and Demographic Features</td>
<td>Anyesha Ray*; Alicia L. Carriquiry, PhD; Danica Ommen, PhD</td>
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## Friday - February 19

### Digital & Multimedia Sciences

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<tr>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>C29</td>
<td>File Structure Analysis of Media Files Transmitted and Received Over WhatsApp</td>
<td>Henry L. Risemberg, MS*; Catalin Grigoras, PhD; Jeff M. Smith, MS</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>C30</td>
<td>A Technique for Reducing Flash Glare for the Forensic Photographer</td>
<td>Joe P. Anderson, BFA*; Dustin C. Hatfield, MA</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>C31</td>
<td>On-Camera vs. Off-Camera Flash</td>
<td>Desmond R. Bostick*; Dustin C. Hatfield, MA</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>C32</td>
<td>Assessing Agreement Among Crime Scene Measurement Methods</td>
<td>Maria Christiene M. Lawas, MS*; Susan Y. Williams, MS; Steven Jameson, BS; Anthony R. Gonzalez, MS; Paula Ernst, BS; Joseph Donfack, PhD</td>
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</table>
POSTER SESSIONS

General

11:30 a.m. - 1:00 p.m.  E34  A Vapochromic Colorimetric Sensor for the Cross-Contamination of Volatile Organic Compounds (VOCs)
Janet M. Crespo Cajigas, BS*; Christopher J. Katilie; Abuzar Kabir, PhD; Lauryn DeGreeff, PhD; Kenneth G. Furton, PhD

11:30 a.m. - 1:00 p.m.  E35  Different Chemical Processes on Various Types of Tape to Visualize Latent Prints
Diana Martinez, MFS*; Ismail M. Sebetan, MD, PhD*; Paul Stein, PhD*

11:30 a.m. - 1:00 p.m.  E36  The Enhancement of Tattoos Using Alternative Light Sources vs. Photo Editing Software
Mirtha L. Gonzalez, BA*; Dustin C. Hatfield, MA

11:30 a.m. - 1:00 p.m.  E37  Evaluating the Effects of Heat on DNA Recovered From Friction Ridges Developed With 1,2-Indanedione (IND)
Ismail M. Sebetan, MD, PhD*; Paul Stein, PhD*; Kathryn Novaes, MFS*

11:30 a.m. - 1:00 p.m.  E38  Forensic Analysis by Raman Spectroscopy
Aylin Yalçın Saribey, PhD*; Nurdan Kenan, MS

11:30 a.m. - 1:00 p.m.  E39  WITHDRAWN

11:30 a.m. - 1:00 p.m.  E40  12 Myths About Genetic Genealogy
Tynan Peterson, MA*; Melanie Thomas Armstrong, BA*

11:30 a.m. - 1:00 p.m.  E41  An Elderly Woman Living With Her Dead Son: A Case Report
Albane Guigne*; Benjamin Mokdad, MD; Benoît Hucheloup, MD; Florence Vincent; Bérengère Dautreme, MD; Gilles P. Tournel

11:30 a.m. - 1:00 p.m.  E42  A Forensic Approach to a Fatal Harbor Accident in Genoa, Italy, in 2013
Camilla Tettamanti, MD*; Alessandra Bonsignore, MD, PhD; Luca Vallega, MD; Francesco De Stefano, MD; Francesco Ventura, MD

11:30 a.m. - 1:00 p.m.  E43  Disclosing and Strengthening Forensic Science in Portugal: A Homicide Case
João De Sousa, MS*

11:30 a.m. - 1:00 p.m.  E44  Medicolegal Death Investigator Workplace Safety Hazards: A Scoping Review of the Literature
Stacy A. Drake, PhD; Caitlyn Thoene*; Margaret Foster, MS, MPH

11:30 a.m. - 1:00 p.m.  E45  Death on the Farm: Suicide by Tractor Runover
Chiara Toni, MD; Francesca Iannaccone; Alice Chiara Manetti, MD; Arianna Baronti, MD*

11:30 a.m. - 1:00 p.m.  E46  A Remote-Controlled Flail Mower Work-Related Death: Who Handled the Controller?
David Forni, MD; Claudia Giaconi, MD; Francesca Iannaccone; Arianna Baronti, MD; Alice Chiara Manetti, MD*

11:30 a.m. - 1:00 p.m.  E47  A Silent Suicide
Francesca Iannaccone*; Andrea Scatena*; Andrea Costantino*; Damiano Marra, MD

11:30 a.m. - 1:00 p.m.  E48  An Unusual Work-Related Death at the Construction Site: The Half-Twisted Man
Luigi Papi; Arianna Baronti, MD; Alice Chiara Manetti, MD; Andrea Costantino*
POSTER SESSIONS

11:30 a.m. - 1:00 p.m.  E49  How Many Times Does Forensic Pathology Have the Chance to Save Lives? A Case Report
Giuseppe Bertozzi, MD*; Francesco Sessa, MS, PhD*; Santina Cantatore;
Luigi Cipolloni, MD, PhD*; Francesca Maglietta, MD*; Michela Ferrara, MD*;
Stefania De Simone, MD*; Irene Riezzo, MD, PhD

11:30 a.m. - 1:00 p.m.  E50  How to Get Away With Murder: The Importance of a Correct Reconstruction of a
Crime Scene Investigation (CSI)
Michela Ferrara, MD*; Stefania De Simone, MD*; Francesca Maglietta, MD*;
Giuseppe Bertozzi, MD*; Francesco Sessa, MS, PhD; Santina Cantatore;
Luigi Cipolloni, MD, PhD*

11:30 a.m. - 1:00 p.m.  E51  Murder? No! It Is Just Drug Abuse: A Weird Crime Scene
Stefania De Simone, MD*; Francesca Maglietta, MD*; Michela Ferrara, MD*;
Giuseppe Bertozzi, MD*; Francesco Sessa, MS, PhD; Luigi Cipolloni, MD, PhD*

11:30 a.m. - 1:00 p.m.  E52  Men on Fire! Two Murders Solved by a Multidisciplinary Approach
Stefania De Simone, MD*; Luigi Cipolloni, MD, PhD*; Francesco Sessa, MS, PhD;
Francesca Maglietta, MD*; Giuseppe Bertozzi, MD*; Santina Cantatore;
Michela Ferrara, MD*

11:30 a.m. - 1:00 p.m.  E53  An Examination of the Self-Efficacy of High School Students in the Prevention of
Drug Addiction
Hacer Merve Meydanci; Alptekin Cetin, PhD; Tugba Ünsal, PhD*; Nurdan Kenan, MS;
Kaan Yilancioglu, PhD; Sevil Atasoy, PhD

11:30 a.m. - 1:00 p.m.  E54  Ethical Committee: A Southern Italian Experience
Francesca Maglietta, MD*; Natascha Pascale, MD*; Mauro A. Ciavarella;
Valeria Bruno, MD; Maria Ausilia Mangieri, MS; Maria Carmela Izzzi, MS;
Gaetano Annese, MD; Aldo Di Fazio

11:30 a.m. - 1:00 p.m.  E55  Closed-Circuit Television (CCTV) Detection of National Security Threats Through
On-Screen Identification of Text
Lam N. Nguyen, BS*; Brendan Chapman, BSc*

11:30 a.m. - 1:00 p.m.  E56  Two Cases of Sharp Force Trauma: Homicide or Suicide? Solving an Enigma With
Forensic Methodology
Benedetta Baldari, MD*; Michela Ferrara, MD; Stefania De Simone, MD;
Mariarosaria David, MD, PhD; Luigi Cipolloni, MD, PhD*; Francesco Sessa, MS, PhD

11:30 a.m. - 1:00 p.m.  E57  Men Who Hate Women: The New Italian Stalking Law and Femicide Cases Review in
Foggia Territory
Francesca Maglietta, MD*; Michela Ferrara, MD*; Giuseppe Bertozzi, MD*;
Stefania De Simone, MD*; Francesco Sessa, MS, PhD; Santina Cantatore;
Luigi Cipolloni, MD, PhD

11:30 a.m. - 1:00 p.m.  E58  Football Hooliganism: A Case of Homicide by Being Struck by a Car
Natascha Pascale, MD*; Francesca Maglietta, MD*; Mauro A. Ciavarella;
Valeria Bruno, MD; Aldo Di Fazio

11:30 a.m. - 1:00 p.m.  E59  A Complex Suicide Committed With a Knife and a Blunt Object
Alessandra Torsello*; Michela Ferrara, MD; Stefania De Simone, MD;
Francesca Maglietta, MD; Giuseppe Bertozzi, MD; Francesco Sessa, MS, PhD;
Santina Cantatore; Luigi Cipolloni, MD, PhD*
POSTER SESSIONS

11:30 a.m. - 1:00 p.m.  
**E60**  
**A Drowned Man in the Woods: A Case of Death by Drowning in Blood**  
*Alessandra Torsello*; *Mariarosaria David, MD, PhD*; *Stefania De Simone, MD*; *Michela Ferrara, MD*; *Francesca Maglietta, MD*; *Giuseppe Bertozzi, MD*; *Luigi Cipolloni, MD, PhD*  

11:30 a.m. - 1:00 p.m.  
**E61**  
**The Use of Video Recording Systems in Solving Forensic Cases**  
*Isabella Aquila, MD, PhD*; *Fabrizio Cordasco, MD*; *Francesco Sicilia, MD*; *Carmen Scalise, MD*; *Matteo A. Sacco, MD*; *Fiorella Caputo, MD*; *Luigi De Aloe, MD*; *Giulia Cacciatore, MD*; *Carlo Filippo Bonetta*; *Angelica Zibetti, MD*; *Santo Gratteri, MD*; *Pietrantonio Ricci, PhD*  

11:30 a.m. - 1:00 p.m.  
**E62**  
**A Mysterious Case of a Serial Killer in Italy: “The Monster of Florence”—Is the Case Really Solved?**  
*Luigi De Aloe, MD*; *Matteo A. Sacco, MD*; *Fabrizio Cordasco, MD*; *Fiorella Caputo, MD*; *Francesco Sicilia, MD*; *Carmen Scalise, MD*; *Giulia Cacciatore, MD*; *Santo Gratteri, MD*; *Carlo Filippo Bonetta*; *Angelica Zibetti, MD*; *Pietrantonio Ricci, PhD*; *Isabella Aquila, MD, PhD*  

11:30 a.m. - 1:00 p.m.  
**E63**  
**The “Tomato” Falsification of the Crime Scene: A Special Case of Murder**  
*Luigi De Aloe, MD*; *Carmen Scalise, MD*; *Matteo A. Sacco, MD*; *Roberto Raffaele, BE*; *Francesco Sicilia, MD*; *Pietrantonio Ricci, PhD*; *Isabella Aquila, MD, PhD*  

11:30 a.m. - 1:00 p.m.  
**E64**  
**A Penetrating Chest Trauma Due to a High-Velocity Projectile in the Workplace**  
*Sarah Hinnawi, MD*; *Ganesh Patil, MBBS*  

11:30 a.m. - 1:00 p.m.  
**E65**  
**Comparing Illicit Opioids and Synthetics Collected From Death Scene Investigations to Toxicology Results of Overdose Deaths**  
*Tracy-Lynn E. Lockwood, BS*; *Alfarena Ballew, MBA*  

11:30 a.m. - 1:00 p.m.  
**E66**  
**An Unusual Suicide With Multiple Stab Wounds**  
*Claudia Rosa, MD*; *Roberto Testi, MD*; *Silvia Boca; Matteo A. Sacco, MD*; *Carmen Scalise, MD*; *Angelica Zibetti, MD*; *Pietrantonio Ricci, PhD*; *Isabella Aquila, MD, PhD*  

11:30 a.m. - 1:00 p.m.  
**E67**  
**The Importance of an Interdisciplinary Approach for a Differential Diagnosis of Child Abuse: A Cade Report**  
*Angelica Zibetti, MD*; *Giulia Cacciatore, MD*; *Fiorella Caputo, MD*; *Carmen Scalise, MD*; *Luigi De Aloe, MD*; *Matteo A. Sacco, MD*; *Fabrizio Cordasco, MD*; *Carlo Filippo Bonetta*; *Francesco Sicilia, MD*; *Pietrantonio Ricci, PhD*; *Isabella Aquila, MD, PhD*  

11:30 a.m. - 1:00 p.m.  
**E68**  
**Infant Homicide: Perpetrators, Causes, and Prevention**  
*Rebecca Amuso, MS*; *Casey Roy, MS*; *Xiang Zhang, MD*; *Zabiullah Ali, MD*; * Ling Li, MD*  

11:30 a.m. - 1:00 p.m.  
**E69**  
**The Importance of Postmortem Investigations in Endouterine Fetal Death: Case Studies and a Review of the Literature**  
*Carmen Scalise, MD*; *Fabrizio Cordasco, MD*; *Fiorella Caputo, MD*; *Francesco Sicilia, MD*; *Matteo A. Sacco, MD*; *Angelica Zibetti, MD*; *Giulia Cacciatore, MD*; *Luigi De Aloe, MD*; *Santo Gratteri, MD*; *Carlo Filippo Bonetta*; *Pietrantonio Ricci, PhD*; *Isabella Aquila, MD, PhD*
## POSTER SESSIONS

### Pathology/Biology

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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>Neck Injuries Associated With Strangulation With Cable Ties</td>
<td>Andri Traustason*; Carl Johan Wingren, PhD</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>Otorrhagia in Strangulations: An Important But Often Underestimated Finding in Forensic Pathology</td>
<td>Rosario Barranco, MD*; Camilla Tettamanti, MD; Alessandro Bonsignore, MD, PhD; Francesco Ventura, MD</td>
</tr>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>The Reconstruction of the Dynamics in Slash Injuries: A Case of Attempted Murder</td>
<td>Luigi De Aloe, MD*; Matteo A. Sacco, MD*; Fabrizio Cordasco, MD*; Fiorella Caputo, MD*; Carmen Scalise, MD; Angelica Zibetti, MD; Giulia Cacciatore, MD*; Carlo Filippo Bonetta*; Francesco Sicilia, MD*; Pietrantonio Ricci, PhD; Isabella Aquila, MD, PhD*</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>Physical Restraint and Neglect in the Elderly: A Forensic Case and Review of the Literature</td>
<td>Carmen Scalise, MD*; Fabrizio Cordasco, MD*; Roberto Raffaele, BE*; Francesco Sicilia, MD; Luigi De Aloe, MD*; Matteo A. Sacco, MD; Fiorella Caputo, MD; Pietrantonio Ricci, PhD; Isabella Aquila, MD, PhD*</td>
</tr>
<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>Cranial Injury Pattern Analysis in the Reconstruction of a Homicide With a Hammer</td>
<td>Carlos Durão; Duarte Nuno Vieira, MD, PhD*</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>A Fatal Case of Retropharyngeal Abscess Following a Cervical Penetrating Wound</td>
<td>Alessandro Santurro, MD*; Federico Manetti, MD; Matteo Scopetti, MD; Martina Padovano, MD; Sara Turco, MD; Antonio Grande, MD, PhD</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>A Pen as an Intermediate Target Becomes a Secondary Projectile Causing a Unique Patterned Injury</td>
<td>Adam Jimenez*; Mark A. Giffen, Jr., DO</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>The Alteration of the Appearance of a Gunshot Wound by the Use of a Hemostatic Agent</td>
<td>Sean M. Reid, BS*; Tiffany O’Neill, DO; Jerri McLemore, MD</td>
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<tr>
<td>11:30 a.m. - 1:00 p.m.</td>
<td>Embolization of Radically Invasive Projectiles (R.I.P.®)</td>
<td>Richard Morris, MD*; James L. Locke, MD; Pamela E. Southall, MD</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>Gunshot Defense Wounds: The Need for a Classification</td>
<td>Giampiero Bottari*; Cristina Elena Rosa Caterino; Marcello Benevento; Davide Ferorelli; Biagio Solarino, PhD; Silvia Trotta</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>Suicide in Older Adults: A Retrospective Study in Cook County, Illinois</td>
<td>Serenella Serinelli, MD, PhD*; Ponni Arunkumar, MD; Lorenzo Gitto, MD*</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>How (Not) to Pop a Cyst at Home: Heart and Lung Perforation After Needle Insertion Into the Chest Wall</td>
<td>Natalia Belova*; Zabiullah Ali, MD; Andrew Rohrer</td>
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<td>11:30 a.m. - 1:00 p.m.</td>
<td>Self-Immolation in a Dumpster</td>
<td>Wendy M. Gunther, MD*; Gary Zientek, MD</td>
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11:30 a.m. - 1:00 p.m.  H58  Pre-Pandemic Trends in Suicide: New Mexico, 2009–2018
Karen Zeigler, DO*; Sarah Lathrop, DVM, PhD

11:30 a.m. - 1:00 p.m.  H59  The Chainsaw Massacre at the Beginning: An Unusual Suicide With a Jigsaw at the End
Giuseppe Bertozzi, MD*; Stefania De Simone, MD*; Michela Ferrara, MD*; Francesco Maglietta, MD*; Stefano D’Errico, PhD; Luigi Cipolloni, MD, PhD*; Benedetta Balari, MD*

11:30 a.m. - 1:00 p.m.  H60  A Rare Suicide by a Homemade Explosive With Multiple Suicide Notes: A Case Report and Systematic Review of the Literature
Matteo A. Sacco, MD*; Carmen Scalice, MD; Luigi De Aloe, MD; Fabrizio Cordascone, MD*; Fiorella Caputa, MD; Francesco Sicilia, MD*; Giulia Cacciatore, MD*; Angelica Zibetti, MD*; Carlo Filippo Bonetta*; Pietrantonio Ricci, PhD*; Isabella Aquila, MD, PhD*

11:30 a.m. - 1:00 p.m.  H61  Multiple Suicidal Gunshot Wounds in Italy: Case Reports and Medicolegal Considerations
Salvatore Roccuzzo, MD*; Elvira Ventura Spagnolo, MD, PhD; Cristina Mondello, MD*; Chiara Chiara Stassi, MD; Gennaro Baldino, MD; Patrizia Gualniera; Daniela Sapienza; Alessio Asmundo

11:30 a.m. - 1:00 p.m.  H62  Disability-Related Road Traffic Crashes Involving Children
Ozgenur K. Tok, MD; Mete K. Gulmen, PhD, MD*; Kenan Kaya; Ahmet Hilal, MD

11:30 a.m. - 1:00 p.m.  H63  Widespread Polyvisceral Vascular Angiectasias in an Electrocution Victim: A Case Report
Sara Lo Pinto, MD*; Rosario Barranco, MD; Francesco Ventura, MD; Gabriele Gaggero, MD

11:30 a.m. - 1:00 p.m.  H64  Acute Progression of Traumatic Diaphragmatic Laceration With Gastric Herniation in the Context of Underlying Chronic Disease
Samuel J. Farris, BS*; Joseph A. Prahllow, MD

11:30 a.m. - 1:00 p.m.  H65  Cassowary Fatally Attacks Its Owner
Nanny Wenzlow, DVM, PhD*; William F. Hamilton, MD

11:30 a.m. - 1:00 p.m.  H66  A Fatality by Cattle Hooves in an Elderly Cowherder: Is There a Specific Pattern of Hoof Injury?
Nilesh Keshav Tumram, MD*

11:30 a.m. - 1:00 p.m.  H67  A Quantitative Investigation of Diatom Dispersion in Lung Tissue of Confirmed Drowning Incidents
Dominik Hagen, BS*; Astrid Obermayer; Walter Stoiber; Walther Gotsmy; Fabio Carlo Monticelli; Stefan Pittner, PhD

11:30 a.m. - 1:00 p.m.  H68  The “Key” Element in a Case of False Decapitation of a Missing Person: A Case Report and Review of the Literature
Luigi De Aloe, MD*; Carmen Scalice, MD*; Francesca Sicilia, MD*; Matteo A. Sacco, MD*; Fabrizio Cordascone, MD*; Silvia Boca; Pietrantonio Ricci, PhD*; Isabella Aquila, MD, PhD*

11:30 a.m. - 1:00 p.m.  H69  An Unusual Presentation of Asphyxia Due to Choking
Alexis Jelinek*; Craig T. Mallak, JD, MD; Darin Trelka, MD, PhD; Rebecca MacDougall, MD

11:30 a.m. - 1:00 p.m.  H70  A Lethal Fat Embolism Syndrome (FES) Related to Spine Surgery: A Presentation of Two Clinical Case Reports
Davide Radaelli*; Martina Zanon, MD; Martina Montanaro, MD; Alessandro Manfredi; Eleonora Valentinitz; Stefano D’Errico, MD, PhD; Paolo Frisoni, MD; Letizia Alfieri, MD; Margherita Neri, MD, PhD

*Presenting Author
POSTER SESSIONS

11:30 a.m. - 1:00 p.m.  H71  An Unusual Hospital Asphyxiation: Death From the Incorrect Administration of Nitrous Oxide (N₂O)
Stefania De Simone, MD*; Francesca Maglietta, MD*; Michela Ferrara, MD*; Giuseppe Bertozzi, MD*; Benedetta Baldari, MD; Alessandra Torsello*; Luigi Cipolloni, MD, PhD*

11:30 a.m. - 1:00 p.m.  H72  Exsanguination Due to Urethral Laceration
Hae-Sun La*; Tanner Bartholow, MD; Todd M. Luckasevic, DO

11:30 a.m. - 1:00 p.m.  H73  Neuropathologic Findings in Fatal Silicone Embolism Syndrome: Potential Contributions to Cause of Death
Sarah C. Thomas, MD*; Michelle Stram, MD; Rebecca Folkther, MD

11:30 a.m. - 1:00 p.m.  H74  A Case of Death Due to Asphyxia From the Use of Mechanical Restraints in a Hospital Environment: Always an Accidental Death?
Carmen Scalise, MD*; Fabrizio Cordasco, MD*; Matteo A. Sacco, MD*; Francesco Sicilia, MD*; Luigi De Alois, MD*; Massimo Iera, MD; Pietrantonio Ricci, PhD; Isabella Aquila, MD, PhD*

11:30 a.m. - 1:00 p.m.  H75  A Retrospective Review of Deaths in Custody Submitted for Medicolegal Autopsy at a Medical University in South Carolina (2012 to 2020)
Angelina I. Phillips, MD*; James Madory, DO; S. Erin Presnell, MD

11:30 a.m. - 1:00 p.m.  H76  Acute Infectious Esophagitis: Three Cases With Variable Etiologies
Keenen Smith, MS*; Lauren R. Crowson-Hindman, DO*; Angelina I. Phillips, MD*

11:30 a.m. - 1:00 p.m.  H77  Medullary Thyroid Carcinoma (MTC) With Diabetic Ketoacidosis: An Autopsy Case Report and Literature Review
Harin Cheong*; Hyun Lyoung Koo

11:30 a.m. - 1:00 p.m.  H78  A Fatal Case of Vibrio Vulnificus Wound Infection
Colin Appleford, DO*; Kelly G. Devers, MD

11:30 a.m. - 1:00 p.m.  H79  Sudden Death Due to Leukostasis in a Subject With Untreated Chronic Lymphocytic Leukemia (CLL)
Lorenzo Gitto, MD*; Rohin Mehta, MD; Kanish Mirchia, MD; Christopher Ramos, MD; Serenella Serinelli, MD, PhD*

11:30 a.m. - 1:00 p.m.  H80  Drowning or Something Else? The Uncommon Birt-Hogg-Dubé Syndrome
Martina Zanon, MD*; Marco Carucci, MD; Eleonora Valentinuz; Martina Montanaro, MD; Davide Radaelli; Alessandro Manfredi; Stefano D’Errico, MD, PhD

11:30 a.m. - 1:00 p.m.  H81  An Autopsy of a Young Female With Abdominal Pain
John X. Hu, MD, PhD*

11:30 a.m. - 1:00 p.m.  H82  A Case of Hamartoma of Mature Cardiac Myocytes (HMCM) Correctly Diagnosed at Autopsy
Crystal Magno, MD*; John Stash, DO; Pamela E. Southall, MD

11:30 a.m. - 1:00 p.m.  H83  The Sudden Death of a Firefighter: A Look at On-Duty Coronary Heart Disease Fatalities
Allison Gaines, MBS*; Abraham T. Philip, MD

11:30 a.m. - 1:00 p.m.  H84  Subdural Hematoma Due to Central Nervous System (CNS) Histoplasmosis in the Setting of Undiagnosed Human Immunodeficiency Virus (HIV) Infection
Keely Coxon, BS*; J. Matthew Lacy, MD
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<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Presenting Authors</th>
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<tr>
<td>11:30 a.m.</td>
<td>H85</td>
<td>The Importance of the Autopsy in Unknown Infectious Diseases</td>
<td>Francesco Sessa, MS, PhD*; Monica Salerno, MD, PhD*; Angela Montana, MD; Massimiliano Esposito, MD; Cristaforo Pomara, MD, PhD</td>
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<td>11:30 a.m.</td>
<td>H86</td>
<td>Acquired Tracheoesophageal Fistula (TEF) Secondary to Tuberculosis in a Human Immunodeficiency Virus (HIV) Patient: A Case Report With Review</td>
<td>Shashank Tyagi, MD*</td>
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<td>11:30 a.m.</td>
<td>H87</td>
<td>Autism Spectrum Disorder (ASD) and Sudden Cardiac Death: Is There a link? A Case Report and a Literature Review</td>
<td>Massimiliano Esposito, MD*; Aldo Liberto, MD; Francesco Sessa, MS, PhD; Giuseppe Bertozzi, MD; Monica Salerno, MD, PhD</td>
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<td>11:30 a.m.</td>
<td>H88</td>
<td>The Role of Histopathology Deaths Due to Pulmonary Thromboembolism in Forensic Cases</td>
<td>Isabella Aquila, MD, PhD*; Matteo A. Sacco, MD*; Carmen Scalise, MD*; Fabrizio Cordasco, MD*; Fiorella Caputo, MD*; Francesco Sicilia, MD*; Luigi De Aloe, MD*; Silvia Boca; Massimo Iera, MD; Pietrantonio Ricci, PhD*</td>
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<td>11:30 a.m.</td>
<td>H89</td>
<td>The Influence of Body Mass Index (BMI) in Autopic Procedures: An Experimental Study in Forensic Cases</td>
<td>Francesco Sicilia, MD*; Matteo A. Sacco, MD; Carmen Scalise, MD; Fabrizio Cordasco, MD; Fiorella Caputo, MD; Valerio R. Aquila*; Luigi De Aloe, MD; Pietrantonio Ricci, PhD; Isabella Aquila, MD, PhD*</td>
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<td>11:30 a.m.</td>
<td>H90</td>
<td>Sudden Cardiac Death Due to Vasculitis: Case Reports and a Review of the Literature</td>
<td>Cristina Mondello, MD*; Alessia Asmundo; Salvatore Roccuzzo, MD; Chiara Chiara Stassi, MD; Gennaro Baldino, MD; Luigi Cardia, MD; Elvira Ventura Spagnolo, MD, PhD</td>
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<td>11:30 a.m.</td>
<td>H91</td>
<td>Death From Peritonitis Due to Multiple Intestinal Perforations: Approaching a Case of Advanced Tuberculosis (TB)</td>
<td>Federico Manetti, MD*; Vittorio Gatto, MD; Matteo Scopetti, MD; Alessandro Santurro, MD; Martina Padovano, MD; Paola Frati, PhD; Vittorio Fineschi, MD, PhD</td>
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<td>11:30 a.m.</td>
<td>H92</td>
<td>The Dentist’s Nightmare: A Case of Massive Left Ventricular Infarction After Dental Implantation</td>
<td>Martina Padovano, MD*; Matteo Scopetti, MD; Federico Manetti, MD; Alessandro Santurro, MD; Paola Frati, PhD; Vittorio Fineschi, MD, PhD</td>
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<td>11:30 a.m.</td>
<td>H93</td>
<td>A Rare Case of Sudden Cardiac Death Associated With Isolated Congenital Coronary Artery Anomalies (CAA): Autopic and Histopathological Results</td>
<td>Francesco Sicilia, MD*, Vincenzo Arena, MD; Fabrizio Cordasco, MD*; Ludovico Abenavoli, PhD, MD; Carmen Scalise, MD; Luigi De Aloe, MD; Matteo A. Sacco, MD*; Angelica Zibetti, MD*; Giulia Cacciarelli, MD; Fiorella Caputo, MD*; Carlo Filippo Bonetta; Pietrantonio Ricci, PhD*; Isabella Aquila, MD, PhD*</td>
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<td>11:30 a.m.</td>
<td>H94</td>
<td>Sudden Death Due to Takayasu Arteritis: A Case Report</td>
<td>Manoj Bhausaheb Parchake, MD*</td>
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<td>11:30 a.m.</td>
<td>H95</td>
<td>Subcapsular Hepatic Hematoma in a Pregnant Woman With No Prenatal Care: A Case Report</td>
<td>Suzi Dodt, BS*; John X. Hu, MD, PhD*</td>
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<td>11:30 a.m.</td>
<td>H96</td>
<td>A Case of Fatal Hemorrhage During Pregnancy</td>
<td>Lauren Lippincott, DO*</td>
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11:30 a.m. - 1:00 p.m.  
**H97**  
A Sudden Pediatric Death: A Case of Asymptomatic Muscular Dystrophy  
Sara Beardsley, BS*; Avneesh Gupta, MD; Kathryn McFadden, MD; Sarah E. Avedschmidt, MD

11:30 a.m. - 1:00 p.m.  
**H98**  
Sudden Death After Bounce House Activities: A Late Complication of Congenital Diaphragmatic Hernia (CDH)  
Kendall Smith, BA*; Brandy Shattuck, MD; James Elliott

11:30 a.m. - 1:00 p.m.  
**H99**  
Intraosseous Puncture-Induced Bone Fractures Mimicking Child Abuse: A Case Report  
Xin Zhang, MD*; Matthew Wanner, MD; Dominique Battles; Christopher Poulos, MD

11:30 a.m. - 1:00 p.m.  
**H100**  
Pediatric Cylindrical Battery Ingestion Causing Fatal Aorto-Esophageal and Pulmonic-Esophageal Fistulae  
Robin Moiseff, MD*; Kendall V. Crowns, MD

11:30 a.m. - 1:00 p.m.  
**H101**  
A Fatal Ruptured Saccular Middle Cerebral Artery Aneurysm in a 14-Year-Old Boy: A Case Report  
Melissa Menard*; Christopher Glen Ball, MBBS, MScEng; Andrew Williams, MD; Kona Williams, MD

11:30 a.m. - 1:00 p.m.  
**H102**  
A Molecular Autopsy by Exome Sequencing in a Decedent With Suspected Genetic Cerebral Small Vessel Disease  
Nicole A. Croom, MD*; Daniel Vincent Sullivan, MD, MA; Eric Huang, MD, PhD; Ellen Moffatt, MD; Walter P. Devine, MD, PhD

11:30 a.m. - 1:00 p.m.  
**H103**  
Retinal Hemorrhages (RH) in a 6-Month-Old Child Related to Disseminated Intravascular Coagulation  
Maria E. Magidenko, BA*; Amanda O. Fisher-Hubbard, MD; Joseph A. Prahlow, MD; Theodore T. Brown, MD

11:30 a.m. - 1:00 p.m.  
**H104**  
Death in the Water? Not Always Drowning!  
Massimiliano Esposito, MD*; Francesco Sessa, MS, PhD; Stefano D’Errico, MD, PhD (FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m.  
**H105**  
A Particular Case of Adipositas Cordis in a Girl Suffering From Lymphocytic Myocarditis and Hashimoto’s Thyroiditis  
Francesco Sicilia, MD*; Fabrizio Cordasco, MD*; Giulia Cacciatore, MD; Ludovico Abenavoli, PhD, MD; Angelica Zibetti, MD*, Carlo Filippo Bonetta*; Matteo A. Sacco, MD; Luigi De Aloe, MD; Fiorella Caputo, MD; Carmen Scalise, MD*; Pietranantonio Ricci, PhD*; Isabella Aquila, MD, PhD*

11:30 a.m. - 1:00 p.m.  
**H106**  
Hand Sanitizer Ingestion Leads to Lethal Methanol Toxicity  
Catherine Nicka*; Lauren E. Dvorscak, MD

11:30 a.m. - 1:00 p.m.  
**H107**  
No Laughing Matter: Deaths Associated With Chronic Nitrous Oxide (N₂O) Abuse  
Justin Rueckert, DO*; Vickie Willoughby, DO; Min Wang, MD, PhD

11:30 a.m. - 1:00 p.m.  
**H108**  
A Case Series of Cyanide Poisoning: A Rising Trend  
Cemigyt Deveci, MD*, Mehmet Atilgan; Refik Akman, MD

11:30 a.m. - 1:00 p.m.  
**H109**  
Black Esophagus and Fatal Cocaine Intoxication: An Unusual Combination  
Alessandro Manfredi*; Diana Bonuccelli, MD; Laura Giusti, MD; Martina Zanon, MD; Davide Radaelli; Martina Montanaro, MD; Stefano D’Errico, PhD

11:30 a.m. - 1:00 p.m.  
**H110**  
Wischnewsky Spots and Black Esophagus in Deaths Involving Diabetic Ketoacidosis: A Case Series  
Ricardo Kaempfen, MS*; Joseph A. Prahlow, MD; Amanda O. Fisher-Hubbard, MD

*Presenting Author
11:30 a.m. - 1:00 p.m.  H111  Sodium Nitrite Suicide: A Case Report
Vishwajeeth Pasham, MD*; Demi B. Garvin, PharmD; Angelina I. Phillips, MD*

11:30 a.m. - 1:00 p.m.  H112  Toxicological, Histological, and Immunohistochemical Analysis in a Case of Malignant Arrhythmia Due to Acute Pure Caffeine Intoxication
Paola Santoro, MD*; Sara Turco, MD; Arianna Baronti, MD; Andrea Costantino, MD; Silvia Romano; Maria Chiara David, PhD; Zoe Del Fante, MD

11:30 a.m. - 1:00 p.m.  H113  An Analysis of the Effect of Necrophagous Entomofauna on Fabric Modifications During a Summer Season in Western Australia
Sotirios Ziogos, BSc (Hons)*; Kari M. Pitts, PhD; Ian Dadour, PhD; Paola A. Magni, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m.  H114  Inter-Individual Variation in Soil Chemistry and Microbial Ecology During Human Decomposition
Allison R. Mason, BS*; Hayden McKee, MSc; Katharina M. Höland, MSc; Thomas Delgado; Mary C. Davis, MSc; Sarah Schwing, BA, BSc; Shawn R. Campagna, PhD; Dawnie W. Steadman, PhD; Jennifer M. DeBruyn, PhD
(FSF Emerging Forensic Scientist Award Poster Presentation)

11:30 a.m. - 1:00 p.m.  H115  Temperature-Dependent Postmortem Protein Degradation in Pigs
Janine Geissenberger, MSc*; Bianca Ehrenfellner, MS; Fabio Carlo Monticelli; Peter Steinbacher, PhD; Stefan Pittner, PhD

11:30 a.m. - 1:00 p.m.  H116  The Detection and Profiling of Seminal DNA From Fly Larvae, Pupae, and Puparia to Investigate Sexual Intercourse Postmortem
Grace Mulder, BS*; Paola A. Magni, PhD; Brendan Chapman, BSc

11:30 a.m. - 1:00 p.m.  H117  The Temporal Relation of the Generation of 3-Methylbutanol and Related Compounds in Decomposing Chicken Liver
Kelsey Springer, BS*; Robert H. Powers, PhD

11:30 a.m. - 1:00 p.m.  H118  The Succession of Postmortem Protein Degradation in Different Muscles in Rats and Humans
Lisa Jakob, MSc*; Angela Zissler, PhD; Bianca Ehrenfellner, MS; Janine Geissenberger, MSc; Fabio Carlo Monticelli; Peter Steinbacher, PhD; Stefan Pittner, PhD

11:30 a.m. - 1:00 p.m.  H119  Postmortem Protein Degradation as a Tool to Estimate the Postmortem Interval (PMI): A Systematic Review
Stefan Pittner, PhD*; Walter Stoiber; Peter Steinbacher, PhD; Janine Geissenberger, MSc; Fabio Carlo Monticelli; Angela Zissler, PhD

11:30 a.m. - 1:00 p.m.  H120  Multiple Sampling of Human Muscle Tissue Over Time to Eliminate Biases and Enhance Data Quality for Protein-Based Postmortem Interval (PMI) Delimitation
Anja Victoria Perner, BSc*; Bianca Ehrenfellner, MS; Janine Geissenberger, MSc; Fabio Carlo Monticelli; Peter Steinbacher, PhD; Stefan Pittner, PhD

11:30 a.m. - 1:00 p.m.  H121  The Identification of Unidentified Remains
Katherine Cochrane, MD*; Darinka Mileusnic-Polchan, MD, PhD

11:30 a.m. - 1:00 p.m.  H122  The Role of Postmortem Computed Tomography (PMCT) In High-Energy Traumatic (HET) Deaths
Massimiliano dell’Aquila, MD*; Gianpietro Volonnino; Alessia Quattrocchi*; Paola Santoro, MD; Alessandra De Matteis, MD; Andrea Scatena; Sara Turco, MD; Andrea Costantino

*Presenting Author  
All times are in the U.S. Central Time Zone
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11:30 a.m. - 1:00 p.m.  H123 The Role of Postmortem Computed Tomography (PMCT) in the Assessment of the Cause of Death in a Natural Disaster (Flooding): A Sicilian Experience
Cristina Mondello, MD*; Salvatore Roccuzzo, MD*; Gennaro Baldino, MD; Antonio Bottari, MD; Alessio Asmundo; Giuseppe F. Lo Re, MD; Sergio Salerno; Fabrizio Perri, MD; Elvira Ventura Spagnolo, MD, PhD*

11:30 a.m. - 1:00 p.m.  H124 Conflict of Interest in the California Coroner or Sheriff-Coroner Systems
Callie G. Huston, MFS*; Ismail M. Sebetan, MD, PhD*; Paul Stein, PhD*

11:30 a.m. - 1:00 p.m.  H125 Pancreatic Subcapsular/Interstitial Hemorrhage Associated With Acute Systemic Hypoxia and Its Impact on Endocrine Organs
Fumiya Morioka*, Naoto Tani, MA; Tomoya Ikeda, PhD, MD; Aoki Aoki, BA; Alissa M. Shida, MS; Kei Ikeda, MD; Tatsuya Hirokawa, PhD; Takaki Ishikawa, MD, PhD

11:30 a.m. - 1:00 p.m.  H126 A Multidisciplinary Approach Is Mandatory in the Forensic Sciences
Francesco Sessa, MS, PhD*; Angelo Montana, MD; Massimiliano Esposito, MD; Aldo Liberto, MD; Monica Salerno, MD, PhD*

YFSF Anthropology

11:30 a.m. - 1:00 p.m.  Y1 A Bone Elemental Age-at-Death Estimation of Deceased Adult Females: A Pilot Study
Melissa Bernard, MSc*; Tracy Rogers, PhD

YFSF Criminalistics

11:30 a.m. - 1:00 p.m.  Y2 “The Squeakiest Wheel Doesn’t Always Get the Grease”: Indigenous Perceptions on the Highway of Tears Missing and Murdered Indigenous Women and Girls (MMIWG) Investigations
Steff King, BS*; Gail S. Anderson, PhD

11:30 a.m. - 1:00 p.m.  Y3 Evaluating a DNA Extraction Procedure for Skeletal Remains
Jacob D. Nead*; Christina Neal, MS; David Russell, MS

11:30 a.m. - 1:00 p.m.  Y4 A Complex Suicide by Drowning and Self-Strangulation
Marcello Benevento*; Silvia Tratta; Gabriele Mandarelli, MD, PhD; Giampiero Bottari; Cristina Elena Rosa Caterina; Biagio Solarino, PhD

11:30 a.m. - 1:00 p.m.  Y5 An Unusual Attempted Suicide or a Covered Attempted Homicide? A Neck Stabbing Case Report and Review of the Literature
Chiara Stassi, MD*; Gennaro Baldino, MD*; Cristina Mondello, MD; Salvatore Roccuzzo, MD; Orazio Malfa, MD; Luigi Cardia, MD; Elvira Ventura Spagnolo, MD, PhD

11:30 a.m. - 1:00 p.m.  Y6 Racial Bias and Missing Persons Investigations
Michelle Jeanis, PhD*; Bryanna Fox, PhD*; Elizabeth A. DiGangi, PhD*; Jonathan D. Bethard, PhD*

11:30 a.m. - 1:00 p.m.  Y7 The Limits of Blood Pattern Analysis (BPA) in the Analysis of a Forensic Case
Carlo Filippo Bonetta*; Roberto Raffaele, BE*; Luigi De Aloe, MD; Matteo A. Sacco, MD*; Carmen Scalise, MD*; Francesco Sicilia, MD; Angelica Zibetti, MD*, Giulia Cacciatore, MD; Pietrantonio Ricci, PhD*; Fabrizio Cardasco, MD; Fiorella Caputo, MD; Isabella Aquila, MD, PhD*
POSTER SESSIONS

11:30 a.m. - 1:00 p.m.  Y8  A Landscape Study of Rapid DNA Technology
Hannah M. Cawley*; Lyndsie N. Ferrara, PhD

11:30 a.m. - 1:00 p.m.  Y9  A Comparison of Semi-Automated and Manual Differential Separation Methods for Mock Sexual Assault Swabs
Stephanie Rink, BA*; Kyleen E. Elwick, PhD; James M. Robertson, PhD

11:30 a.m. - 1:00 p.m.  Y10  Firearm and Toolmark Standard Operating Procedures (SOP) Assessed to Determine Variety in Forensics Laboratories
Madison McGregor*

YFSF General

11:30 a.m. - 1:00 p.m.  Y11  The Quantification of Persistent Organic Pollutants in Organic and Non-Organic Produce Using Stir-Bar Sorptive Extraction With Gas Chromatography/Mass Spectrometry (GC/MS) and Isotope Dilution Mass Spectrometry
Tiffany L. Hoke*

11:30 a.m. - 1:00 p.m.  Y12  A Case Study of the Correlation Between Bullying and Subsequent School Shootings
Levi E. Peck*; Hunter N. Gault*; Rikki A. Tasso-Thompson*; Christina A. Leija, MS

YFSF Pathology/Biology

11:30 a.m. - 1:00 p.m.  Y13  An Unintentional Drowning With a Contributing Factor of Carbon Monoxide Intoxication
Raymond H. Bayer III, BS*; Joseph A. Prahlow, MD

11:30 a.m. - 1:00 p.m.  Y14  Determining the Ideal Swab Type for Collection of the Microbiome for Forensic Identification Purposes
Natalie M. Wise, BS*

YFSF Toxicology

11:30 a.m. - 1:00 p.m.  Y15  Qualtrics Survey of Gamma-Hydroxybutyric Acid (GHB) Methodologies in Blood and Urine
Jeovanna S. Badson, BS*; Marc A. LeBeau, PhD; Camila Berner; Jack Andrews; Karen S. Scott, PhD

*Presenting Author