YFSF POSTERS

Wednesday

Poster Session

11:30 am – 1:00 pm	**Y1**	**An Estimation of Partition Coefficients (LogP) and Distribution Coefficients (LogD7.4) for Selected Nitazene Analogs** Sara L. Kuberski, BS*; Britni Skillman, PhD
11:30 am – 1:00 pm	**Y2**	**Extended Hair-Testing Panels Reveal a Hidden Use of Non-Routine Psychoactive Substances in DUI Offenders: Preliminary Research in Central Italy** Giulia Ricchezze, MS*; Erika Buratti, PhD; Alice Cerioni, PhD; Gianmario Mietti, PhD; Marta Cippitelli, PhD; Mariano Cingolani, MD; Rino Froldi, MS; Roberto Scendoni, MD, PhD
11:30 am – 1:00 pm	**Y3**	**The Long-Term Stability of Dual Orexin Receptor Antagonists (DORAs) and the Novel Non-Opioid Analgesic Suzetrigine in Forensic Toxicology Specimens** Isabelle Parry, MSFS; Savannah M. Reyes, BS*; Britni Skillman, PhD
11:30 am – 1:00 pm	**Y4**	**An Assessment of Nitazenes' and Orphines' Cross-Reactivity Using Commercially Available Neogen Enzyme-Linked Immunosorbent Assay (ELISA) Screening Kits** Devin C. Baer, BS*; Munchelou M. Gomonit, PhD; Chris W. Chronister, PhD; Marco Ballotari, PhD; Boone Prentice, PhD; Timothy Garrett, PhD; Michael T. Truver, PhD
11:30 am – 1:00 pm	**Y5**	**The Optimization of a Liquid-Liquid Extraction Method for the Analysis of Synthetic Cathinones and Amphetamine-Type Stimulants in Blood** Madelyn Porter, BS*; Julia Hintermeister, MSFS; Eduardo G. de Campos, PhD *(FSF Emerging Forensic Scientist Award Poster Presentation)*
11:30 am – 1:00 pm	**Y6**	**Digital Evidence Handling in Cybercrime Investigations in Pakistan: A Forensic Capacity and Chain-of-Custody Framework** Syed Muhammad Haider Raza, MPhil*
11:30 am – 1:00 pm	**Y7**	**The Quantification of Organic Compounds in Five Smokeless Powders Using High-Performance Liquid Chromatography** Dayannara N. Alvarado, BS*; Ellen H. Hondrogiannis, PhD; Mary Sajini Devadas, PhD
11:30 am – 1:00 pm	**Y8**	**Socioeconomic Disparities in Drug-Related Deaths: A ZIP Code-Level Analysis of Medicolegal Death Investigations in Montgomery County, Pennsylvania** Andie J. Psilopoulos*
11:30 am – 1:00 pm	**Y9**	**Simultaneous Sequencing of Genetic and Epigenetic Loci in Human Remains Identification** Katherine E. McBroom Henson, BA*; Rupesh K. Kesharwani, PhD; Austin W. Reynolds, PhD; Nicole R. Phillips, PhD; Fritz Sedlazeck, PhD; Roxanne R. Zascavage, PhD
11:30 am – 1:00 pm	**Y10**	**The Development of a Forensic Workflow for the Detection and Characterization of Commercial Pyrethroid Insecticides on Paper Evidence Encountered in Correctional Facilities** Joanna Burnham, BS*; Thomas Spudich, PhD
11:30 am – 1:00 pm	**Y11**	**A Fatal Intersection: Convergent Pathways of Cavernous Sinus Sepsis and Methanol Intoxication Leading to Disseminated Intravascular Coagulation** Jeffrey Lin*; Saoirse Y. Teng; Elisa Dong, BA

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11:30 am – 1:00 pm	**Y12**	**Cerebrospinal Fluid Orexin-A as a Candidate Marker for Distinguishing Daytime and Nighttime Deaths: A Preliminary Forensic Autopsy Study** Ashley Broome-Webster, MS*; Risa Bandou, PhD; Hiroki Kondou, PhD; Tomoko Shimizu, PhD; Yuka Miyazaki, MD; Mayu Hirata, DDS; Hiroshi Ikegaya, MD, PhD; Yoshihisa Akasaka; Nobuyo Ikeda, BA; Tomoya Mori, DDS
11:30 am – 1:00 pm	**Y13**	**The Epigenetic Fingerprint of Lifestyle: Smoking, Vaping, and Exercise Revealed Through Buccal DNA Methylation** Maria J. Castagnola, MS*; Mayaas Hassan, BA; Varun Dwaraka, PhD; Ryan Smith, BA; Sara C. Zapico, PhD
11:30 am – 1:00 pm	**Y14**	**The Rapid Screening of Kratom Products for Regulatory Compliance Using DART-MS** Emily Meckler*; Daniel Sheehan, BAS; Yanfang Li, PhD; Roy Upton; Mengliang Zhang, PhD
11:30 am – 1:00 pm	**Y15**	**A Rare Case of Sudden Adolescent Death Due to Pituitary Apoplexy** Saoirse Y. Teng*; Elisa Dong, BA; Melody Y. Meng; Zhuo Wang, MD
11:30 am – 1:00 pm	**Y16**	**An Unusual Sudden Death Due to Bone Marrow Embolism Post-Craniotomy** Saoirse Y. Teng*; Annamarie Wayman; Elisa Dong, BA; Zhuo Wang, MD
11:30 am – 1:00 pm	**Y17**	**The Development and Optimization of a LC/MS/MS Method for the Detection of Hallucinogens and Their Metabolites in Aqueous and Urine Matrices** Adilene Y. Masopust, BS*; William H. Campbell, PhD
11:30 am – 1:00 pm	**Y18**	**Distinguishing Machine-Generated From Human-Authored Smishing Messages: A Reproducible Stylometric Method for Forensic Authorship-Origin Assessment** Davie Mdumuka, MEng*
11:30 am – 1:00 pm	**Y19**	**Sudden Death by Cardiac Sarcoidosis: A Rare Complication of a Multisystem Disease** Elisa Dong, BA*; Saoirse Y. Teng; Melody Y. Meng; Zhuo Wang, MD
11:30 am – 1:00 pm	**Y20**	**Experimental Skeletal Pair-Matching and Seriation of Ribs** Raychel Briseno, BS*; James T. Pokines, PhD
11:30 am – 1:00 pm	**Y21**	**Persistence of Latent Bloodstains on Porous and Non-Porous Substrates Under Repeated Solvent Washing** Moin Ahmad Butt, MSc*
11:30 am – 1:00 pm	**Y22**	**Cyber Takeover of ArduPilot Drones: Non-Kinetic Mitigation Using Authentication Bypass** Justin S. Smith, BS*; Kendra E. Shamblin, BS; Robin Verma, DC
11:30 am – 1:00 pm	**Y23**	**Improving Forensics to Prevent Wrongful Convictions** Mehlik Thomas, BA*
11:30 am – 1:00 pm	**Y24**	**Novel Benzodiazepines Trends in Palm Beach County Deaths** Avinash Kanakam, BS*; Evelyn Azalea; Lee Marie Tormos, MD
11:30 am – 1:00 pm	**Y25**	**Machine Learning for Forensic Microbial Identification and Prediction: A Systematic Review** Ahmad Hassan, MS*; Pedro Ferreira, PhD; Nadia Pinto, PhD
11:30 am – 1:00 pm	**Y26**	**A Fluorescent Phenanthro-Imidazole-Based Approach for Forensic Detection of Explosive Residues** Mahesh Vasava, PhD*

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11:30 am – 1:00 pm	**Y27**	**Beyond Osborn's Principles: Quantitative Ratio Analysis of Signatures Executed Across Analog and Digital Media** Sue Xian Lim, MScFS*; Dr Dzulkiflee Ismail, PhD; Wan Nur Syuhaila Mat Desa, PhD
11:30 am – 1:00 pm	**Y28**	**Reawakening Evidence: Enhancing DNA Recovery From Lateral Flow Immunochromatographic Tests to Advance Cold Case Investigations** Dana Macfarlane, MS*; Vasilisa Yukhno; Dakshata Ravinder; Gabriela Roca, PhD; Sara C. Zapico, PhD
11:30 am – 1:00 pm	**Y29**	**Postmortem Clavicle Positioning** Natalie Clark, BA*; Laura E. Cirillo, PhD; Ryan Ehlrich, PhD; Rylan Tegtmeyer Hawke, PhD
11:30 am – 1:00 pm	**Y30**	**The Development of a Dose Capture System for Cannabinoid Vape Aerosol** Rachel Byrum, BS*; Justin L. Poklis, BS; Michelle R. Peace, PhD
11:30 am – 1:00 pm	**Y31**	**Exploring Applications of the PID-5-FFBF and Potential Future Directions** Sophia Thompson*; Kelly Crockett, MScFS
11:30 am – 1:00 pm	**Y32**	**The Developmental Validation of the IDseek CombiSTR Plus Reverse Complement-PCR Technology for Typing Autosomal and Y-Chromosomal Short Tandem Repeats** Rosslyn Garbarini, BS*; Jill van Wolferen, MSc; Joop P.G. Theelen, BSc; Brian Young, PhD; Pieter van Oers, MSc; Mirna Ghemrawi, PhD
11:30 am – 1:00 pm	**Y33**	**The Detection of Cannabinoids in Alternative Matrices Via a Small-Footprint Ion Trap Mass Spectrometer** Emma Dube, BS*; Lilian de Melo Barbosa, MS; Venkateswarlu Panchagnula, PhD
11:30 am – 1:00 pm	**Y34**	**Navigating the AI Landscape for Forensic Use: A Preliminary Database** Kiera A. McCormick, BS*; Odia Kane, PhD; Michael Rosenblum, PhD; Yiqun Chen, PhD
11:30 am – 1:00 pm	**Y35**	**The Accuracy of Transition Analysis 3 (TA3-V1.0) for Adult Age Estimation in the John A. Williams Human Skeletal Collection** Blue Wonhof, MS*
11:30 am – 1:00 pm	**Y36**	**UV-Resistant Microbial Signatures as Alternative Forensic Identifiers in Degraded DNA Environments** Valentina Gianinetto*; Jamie Miller, PhD
11:30 am – 1:00 pm	**Y37**	**Stature Estimation Using Fragmentary Tibiae in Americans with European Population Affinity** Yuhan Wang, MS*
11:30 am – 1:00 pm	**Y38**	**A Preliminary Forensic Toxicology Evaluation of Trazodone and Silver Oxide Nanoparticle Co-Exposure Using *Artemia Salina*** Brizeyda E. Davila*; Armando Morales, BS; Edmy Ferrer, PhD
11:30 am – 1:00 pm	**Y39**	**Internal Instrument and Software Validation for Analysis of DNA Databank Samples** Alexandra Drake, BS*; Jeff Hahn, MS; Holly J. Kramer, BS; Kelly J. Beatty, MSFS
11:30 am – 1:00 pm	**Y40**	**The Differentiation of 1cm Single-Hair Fragments by Selected Amino Acid Ratios** Mara Hann, BS*; Robert H. Powers, PhD; Alyssa Marsico, PhD
11:30 am – 1:00 pm	**Y41**	**Field Validation of a *Phormia Regina* (Diptera: Calliphoridae) Age Estimation Technique** Rafiu Adebayo Adeyemo, MSc*; Jeffrey D. Wells, PhD

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11:30 am – 1:00 pm	**Y42**	**Forensic Evidence Markers as Potential Vectors of DNA Contamination** Annaliese Gray*; Pamela Marshall, PhD
11:30 am – 1:00 pm	**Y43**	**Forensic Geology in Chile: An X-Ray of the Crime Scene From the Geological Evidence** Kristian Agurto-Velasquez, PhD*; Katja Deckart, PhD; Jonathan Agurto, MSc
11:30 am – 1:00 pm	**Y44**	**Method Development and Validation for Quantitation of 4-ANPP in Urine to Detect Potential Illicit Fentanyl Exposure in Donors** Wardah Shabbir, BS*; Justin L. Poklis, BS; Grace R. Williams, PhD; Carl E. Wolf, PhD
11:30 am – 1:00 pm	**Y45**	**A Classification of Visually Similar Automotive Vinyl Wraps Using Spectroscopic Techniques** Jasmin M. Ali, BSc*; Zachary Andrews, PhD
11:30 am – 1:00 pm	**Y46**	**The Determination of Herbicides and Contaminants in Foodstuff Using GC/MS** Julia Barnes, BS*; Heather L. Rhoads, MS; Thomas H. Jourdan, PhD; Sanjeewa Gamagedara, PhD; Brian S. McDowell, BS
11:30 am – 1:00 pm	**Y47**	**The Forensic Potential of Puparial Cases as Toxicological Specimens: The Detection of Multiple Antidepressants Across Developmental Stages of *Lucilia Sericata*** Jaeyoung Lee, MASc*; Jeong-Hee Yun; Sung-Yong Yun; Jae-Yoon Lee; Jin-Woo Mun; Jeong-Jung Kim; Hyeon-Jun Kim; Sung-Soo Bae; Dae Geon Oh, MASc; Joo-Hyuk Yoon, PhD; Yeon Hwa Lee, MASc; Kyeong-Ryoon Lee, PhD
11:30 am – 1:00 pm	**Y48**	**Gull (Laridae) Scavenging of Pig Carcasses on Appledore Island, Maine** Rebecca E. Arden, BA*; James T. Pokines, PhD
11:30 am – 1:00 pm	**Y49**	**Frontotemporal Dementia and Criminal Behavior: Implications for Forensic Assessment** Anton Shkundin, MD, PhD; Hasan Issa, MD; Payton Colantonio, MD*; Tolu Olupona, MD; Jason Hershberger, MD
11:30 am – 1:00 pm	**Y50**	**The Capabilities of DART-MS/MS as a Screening Technique to Identify Drugs in Dried Blood Spatter on Different Porous and Non-Porous Crime Scene Surfaces** Zech Payne, BS*; Thomas H. Jourdan, PhD
11:30 am – 1:00 pm	**Y51**	**The Identification and Quantification of Human DNA Recovered From Mosquito Bloodmeal for Forensic Applications** Kiersten Davis, APM*; Mark Flood, PhD; Kristy D. Henson, PhD
11:30 am – 1:00 pm	**Y52**	**Ancient DNA Analysis of Fossilized Remains From Latvia: Species Identification and the Role of Modern Genomic Techniques** Cassandra Ward, BS*; Pamela Marshall, PhD; Lyndsie N. Ferrara, PhD; Philip Reeder, PhD; Anne Burrows, PhD
11:30 am – 1:00 pm	**Y53**	**The Evaluation of the RapidHIT ID System for the Analysis of Trace DNA Recovered From Firearms** Hunter Grange, BA*; Edward Schikel, MBA; Terrance Lewis, MA; Fabio Oldoni, PhD
11:30 am – 1:00 pm	**Y54**	**The Impact of Indoor Environmental Conditions on the Persistence of Bodily Fluids on Flooring Substrates** Rachael L. Wall, BS*; Anna Franzoni, MS; Daniele S. Podini, PhD; Cristiano Sabelli, PhD; Fabio Oldoni, PhD
11:30 am – 1:00 pm	**Y55**	**Quantitative Firearm Distance Determination at Varying Angles of Incidence Based on Lead Concentration of Gunshot Residue Analyzed With Inductively Coupled Plasma Optical Emission Spectroscopy** Cameron S. Freeman, BS*

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11:30 am – 1:00 pm	**Y56**	**Advancing Forensic Analysis of Fingermarks and Questioned Documents Using FTIR Chemical Imaging Microspectroscopy** Riley McCabe, APM*; Cadence Manning, APM*; Petermann Josh, APM; James Cizdziel, PhD
11:30 am – 1:00 pm	**Y57**	**Evaluating the Accuracy and Confidence of Students Using a Decision-Tree Tool in Tooth Identification** Kailey C. McCann*; Kirsten Verostick, PhD
11:30 am – 1:00 pm	**Y58**	**The Effect of Decomposition on Soil Microbes** Jessica Cotta*; Jamie Miller, PhD; Kristy D. Henson, PhD
11:30 am – 1:00 pm	**Y59**	**Postmortem Freeze-Thaw Cycles Observed Through Histological Analysis of Human Intercostal Muscles** Melissa Dwello, MS*; Amanda L. Joslyn, MS; Jane C. Harris, PhD
11:30 am – 1:00 pm	**Y60**	**Reading the Molecular Clock: RNA Degradation Dynamics for Time-Since-Deposition Estimation** Federica Sellitto, MSc*; Domiziana Buffoni, MSc; Anna Franzoni, MS; Sarah Gino, MD, PhD; Noemi Procopio, PhD
11:30 am – 1:00 pm	**Y61**	**Engineered DNA-Binding Molecule-Mediated Chromatin Immunoprecipitation (enChIP) Method of Forensic Short Tandem Repeat (STR) Analysis** Huiling Zhou, APM*; Elizabeth Chesna, PhD; Eric Domyan, PhD
11:30 am – 1:00 pm	**Y62**	**An Evaluation of Nitrous Oxide (N_2O) Canister Quality Control Through Qualitative and Quantitative Identification of N_2O and Contaminants** Seth I. Spurlock, BSFS*; Justin L. Poklis, BS; Alaina K. Holt, PhD; Michelle R. Peace, PhD
11:30 am – 1:00 pm	**Y63**	**An Analysis of Black Pen Ink With Raman Spectroscopy** Bridget Campbell, BS*; Ellen H. Hondrogiannis, PhD; Mary Sajini Devadas, PhD
11:30 am – 1:00 pm	**Y64**	**An Evaluation of Trace DNA Recovery From Towels and Glass Slides** Jesada Sanders, BS*; Ashley G. Morgan, PhD

Thursday

Poster Session

11:30 am—1:00 pm	**Y65**	**Method Development and Validation for the Identification and Quantification of Kratom Alkaloids and Related Compounds** Victoria Zultevicz, BS*; Edward Sisco, PhD; Meghan G. Appley, PhD
11:30 am—1:00 pm	**Y66**	**Testing and Validation of the 8-Dye PowerPlex 35GY STR Multiplex System on the Applied Biosystems SeqStudio 8 Flex Genetic Analyzer** Elizabeth L. Reilly*; Timothy F. Herbert, MS; Colin Steven, MS; Tracey Dawson Green, PhD; Claire Cartozzo, PhD
11:30 am—1:00 pm	**Y67**	**DNA Degradation in Epiphyseal Trabecular Bone After Ultraviolet Radiation Exposure** Kristy D. Henson, PhD; Maeghan B. Fisher*

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11:30 am—1:00 pm	**Y68**	**Assessing the Accuracy of Macromorphoscopic Traits for Population Affinity Estimation and Differentiation Potential in Thai and Chinese Crania** Sofia Nuri, BSc*; Areeya Wongla, BS; Saranya Honghimaphan, BS; Jasmine Volkaert, BS; Patara Rattanachet, PhD; Napakorn Sangchay, MD, PhD
11:30 am—1:00 pm	**Y69**	**Comparative Quantitation and Recovery of Alprazolam in Red and Yellow Bone Marrow Using Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS)** Chhivhun Chan, BS*; Brian Eckenrode, PhD
11:30 am—1:00 pm	**Y70**	**A Performance Assessment of Four Forensic DNA Quantification Systems at Low-Template DNA Concentrations** Mia Ann Confer*; Pamela Marshall, PhD; Lyndsie N. Ferrara, PhD
11:30 am—1:00 pm	**Y71**	**The Feasibility of Using High-Performance Liquid Chromatography in the Differentiation of Six Beverages** Maya Cowling, BSc*; Ellen H. Hondrogiannis, PhD; Mary Sajini Devadas, PhD; Alexis Frost, MSc
11:30 am—1:00 pm	**Y72**	**Preparatory Separation of Fentanyl From Powdered Mixtures Using MagLev to Lower the Limit of Detection Using the Marquis Spot Test** Aubrey Kreutzer, BS*; Heather L. Harris, JD; Christoffer abrahamsson, PhD; Mia Borrelli, MScFS
11:30 am—1:00 pm	**Y73**	**The Evaluation of Deodorant as a Non-Traditional Reference Source for Forensic DNA Analysis** McKayla Brady, BS*; Fabio Oldoni, PhD; Coral M. Smith, MS; Sara Bodnar, MS
11:30 am—1:00 pm	**Y74**	**The Effect of Heat and Fire on the Ability to Identify and Characterize Sharp Force Trauma** Olivia Kilbourne, BS*; Dr. Alicia Morgan, PhD; Jennifer L. Hammers, DO; William Davis, BS; Matthew H. Regentin, MS
11:30 am—1:00 pm	**Y75**	**The Analysis of Microbial Contamination in Electronic Cigarette Liquids** Jordan Graham, BS*; Alaina K. Holt, PhD; Michelle R. Peace, PhD; Christopher Ehrhardt, PhD

Friday

Poster Session

11:30 am—1:00 pm	**Y76**	**The Use of Global Versus Population-Specific Sex Estimation Methods Derived From Scapular Linear and Angular Measurements** Mackenzie K. Murray, BS*; Elaine Y. Chu, PhD
11:30 am—1:00 pm	**Y77**	**Chasing Colorado Spacetime Curves: Two Years of Magnetic-Field Measurements Mapped Across the Colorado Landscape** Cassandra Stanton, MS*
11:30 am—1:00 pm	**Y78**	**Optimizing the Detection of Designer Benzodiazepines in Biological Matrix for Liquid Chromatography/Tandem Mass Spectrometry Analysis in Forensic Toxicology** Evelyn R. Rudich, BS*; Stephanie J. Wetzel, PhD; Lyndsie N. Ferrara, PhD; Erica Maney, MS; Caley Moore, MS
11:30 am—1:00 pm	**Y79**	**Mass Spectrometry Imaging of Developed Fingerprints Using Visible MALDESI** Mackenzie Hickey*; Kenyon Evans-Nguyen, PhD

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11:30 am—1:00 pm	**Y80**	**Beyond Earth: Preparing Death Investigation for Human Spaceflight** Jordan M. Stephens*; Kelly Crockett, MScFS
11:30 am—1:00 pm	**Y81**	**Evaluating Evidence of Common Origin Among Street-Level Fentanyl Samples Using Complementary Mass Spectrometry Techniques** Samantha K. Williams, BS*; Nicholas E. Khorozov, MS; Heather L. Harris, JD; Joshua S. DeBord, PhD
11:30 am—1:00 pm	**Y82**	**An Example of Interagency Collaboration and Standard Operating Procedures for an Extended Forensic Landfill Search Effort** Jeanell Varnadore, BA*; Sophia Henn, BA; Madisen P. James, BS; Phoenix Farnham, BA; Eric Nordstrom, BA; Austin Lee, MA; Emilie Wiedenmeyer, PhD
11:30 am—1:00 pm	**Y83**	**I Have No Witness, and I Must Speak: A Quantum-Relational Theory of Forensic Evidence** Avery E. Bernard Johns, APM*
11:30 am—1:00 pm	**Y84**	**Method Development and Validation of Methadone and Synthetic Analogs Using LC/QQQ/MS** Katlyn Myers, BS*; Savannah Baker, MSc; Sara E. Walton, PhD; Alex J. Krotulski, PhD
11:30 am—1:00 pm	**Y85**	**Examining the Perceptions of Music Therapy to Address Work Stress for Forensic Professionals** Jennifer Krizner, BS*; Stephenie Sofield, MA; Pamela Marshall, PhD; Matthew H. Regentin, MS; Lyndsie N. Ferrara, PhD
11:30 am—1:00 pm	**Y86**	**Fragrances and Forensics: Blowfly Attraction and Chemical Interaction** Eliza Dunn, BS*; Chloe Hawkings, PhD; Fabio Oldoni, PhD; Stephanie Rainer, MSFS
11:30 am—1:00 pm	**Y87**	**A Preliminary Assessment of Training and Agreement in Fractographic Feature Identification** Lily Robinson*; Savannah G. McAdow, MA; Angela Harden, PhD; Delaney Conway, MA
11:30 am—1:00 pm	**Y88**	**A Paleopathological Review of Individuals Lost to Time** Rachel Hernandez*; Lauren A. Carl*
11:30 am—1:00 pm	**Y89**	**Physicochemical and Fourier Transform Infrared Spectroscopy Changes in Soil and Vegetation Associated With Porcine Decomposition Under Tropical Conditions** Adriana Rodriguez*; Dorcas Torres, PhD
11:30 am—1:00 pm	**Y90**	**The Development and Optimization of an Allele-Specific Polymerase Chain Reaction High-Resolution Melt Method for Biogeographic Ancestry Inference** Kailey van't Hoff, BS*; Arielle Bixby, BS*; Cynthia Zeller, PhD; Kelly M. Elkins, PhD
11:30 am—1:00 pm	**Y91**	**Photoluminescence Signatures of the Decomposition Microenvironment in Soil and Vegetation** Yanelisse Morales Perez*; Dorcas Torres, PhD
11:30 am—1:00 pm	**Y92**	**The Detection of Systemic Disease-Associated Oral Bacteria in Postmortem Blood Cultures: Evidence of Antemortem Bacteremia Rather Than Cause-Specific Bacterial Invasion** Mayu Hirata, DDS*; Risa Bandou, PhD; Ashley Broome-Webster, MS; Yuka Miyazaki, MD; Tomoko Shimizu, PhD; Hiroki Kondou, PhD; Hiroshi Ikegaya, MD, PhD
11:30 am—1:00 pm	**Y93**	**A Fabricated Gunshot Wound: A Forensic Challenge** Treasa James, MD*

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11:30 am—1:00 pm	**Y94**	***In Vitro* Metabolism of N-Propionitrile Chlorphine in Human Hepatocytes: Candidate Biomarkers for Forensic Toxicology** Giulia Bambagiotti, MD*; Diletta Berardinelli, PhD; Omayema taoussi, MSc; Francesco Paolo Busardò, MD, PhD
11:30 am—1:00 pm	**Y95**	**Chiral HPLC/MS/MS Profiling of N-Propionitrile Chlorphine and Selected Human Hepatocyte Metabolites** Diletta Berardinelli, PhD*; Giulia Bambagiotti, MD; Giorgia Sprega, PhD; Omayema Taoussi, MSc; Francesco Paolo Busardò, MD, PhD
11:30 am—1:00 pm	**Y96**	**Measuring the Difference: A Comparative Analysis of MicroScribe and Hand-Held Osteometric Measurements Using FORDISC 3.1** Gracie Hinton, BA*; Heather A. Walsh-Haney, PhD; Savanna D. Agilar, MS; Micki Besse, MS
11:30 am—1:00 pm	**Y97**	***In Vitro* Metabolic Biomarker Characterization of Δ9-Tetrahydrocannabinol-Methyl Ether Using Human Liver S9 Fractions Using Liquid Chromatography/Tandem Mass Spectrometry** Amanda Talbott, BS*; Lydia Muentz, BS; Justin L Poklis, BS; Alaina K. Holt, PhD; Michelle R. Peace, PhD
11:30 am—1:00 pm	**Y98**	**How Drugs Alter Postmortem Attraction of Flies** Hannah Goolsby*; Jessica Fry, PhD
11:30 am—1:00 pm	**Y99**	**Inductively Coupled Plasma Optical Emission Spectroscopy Characterization of Bullet Alloy Ratios: Implications for Firearm Identification From Bullet Wipe on Bone and Other Impact Surfaces** Alyssa Hildebrandt, BSc*; Ava Ruzzo, BSc; Emmy Simon, BSc; Megan Moore, PhD; Jan Halamek, PhD
11:30 am—1:00 pm	**Y100**	**The Impact of Fire Exposure on the Stability and Detonation Risk of PETN Core Detonating (DET) Cord** Tessa A. Haffey, BS*; Stephanie J. Wetzel, PhD; Nancy A. Love, BS; Richard Painter, APM; William Isbir, APM; Matthew H. Regentin, MS
11:30 am—1:00 pm	**Y101**	**Fauna at the Rural Edge: Assessing the Effects of Suburban Encroachment on Faunal Activity at a Florida Taphonomic Research Facility** Rohini Patel, BA*; Jamie Arbelaez, BA*; Savanna D. Agilar, MS; Micki Besse, MS; Heather A. Walsh-Haney, PhD
11:30 am—1:00 pm	**Y102**	**The Effects of Amitriptyline on Maggot Development and Implications for Forensic Postmortem Interval (PMI) Estimation** Tessia Shaffner, APM*; Kerry L. Opel, PhD
11:30 am—1:00 pm	**Y103**	**Bridging the Forensic Reality Gap Between Practitioner, Student, and the Public** Kristen Brunt*; Evelyn A. Boyd, PhD; Rushali Dargan, PhD*
11:30 am—1:00 pm	**Y104**	**Forensic Implications of Non-Touch Environmental DNA for Low-Template DNA Interpretation** Madison P. Corey, BS*; Kelly J. Beatty, MSFS; Chelsea R. Garza, PharmD; Chelsea Sohyda, MSFS
11:30 am—1:00 pm	**Y105**	**An Inhibitory Effect of Ethanol GABA Metabolism Succinyl Semialdehyde Dehydrogenase** Kayla O'Brien, MS*; Robert H. Powers, PhD
11:30 am—1:00 pm	**Y106**	**Qualitative Sex Estimation of Transgender Individuals in the Texas State Donated Skeletal Collection** James Myrick*; Theresa De Cree, MS; Eliana Gutierrez, MA

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11:30 am—1:00 pm	**Y107**	**The Detection of Ignitable Liquids Exposed to Various Durations of Fire** Caitlyn C. Patton, BS*; Abigail Burke, MS; Donald Brucker; Nancy A. Love, BS; Matthew H. Regentin, MS; Stephanie J. Wetzel, PhD
11:30 am—1:00 pm	**Y108**	**A Multiple Charge Liquid Chromatography/Tandem Mass Spectrometry Method Development for Common Glucagon-Like Peptide-1 Receptor Agonists** Alex N. Stuchal, BS*; Justin L. Poklis, BS; Alaina K. Holt, PhD; Ashley Harris, PhD; Michelle R. Peace, PhD
11:30 am—1:00 pm	**Y109**	**The Effects of Drying Temperature on DNA Recovery from *Sus Scrofa* Femur Samples** Elizabeth J. Hipperling*; Ashley G. Morgan, PhD
11:30 am—1:00 pm	**Y110**	**Beyond Earth: Preparing Biological Evidence Processing for Human Spaceflight** Ileana Banatlao*; Kelly Crockett, MScFS
11:30 am—1:00 pm	**Y111**	**Salt, Water, and Bones: Preserving Skeletal Integrity Through Desalination in Forensic Remains** Linda Zúñiga, BA*; Mariah Zarria, BS; Micki Besse, MS; Savanna D. Agilar, MS; Heather A. Walsh-Haney, PhD
11:30 am—1:00 pm	**Y112**	**An Evaluation of Image Color Analysis for Prediction of DNA Recovery Success From *Sus Scrofa* Elements** Maia E. Jimenez, BS*; Ashley G. Morgan, PhD
11:30 am—1:00 pm	**Y113**	**The Quantification of Fracture Surface Topography Via Geospatial Analysis** Savannah G. McAdow, MA*; Angela Harden, PhD; Christopher M. Goden, PhD
11:30 am—1:00 pm	**Y114**	**The Polymerase Chain Reaction Protocol Optimization for Amplification of Bacterial 16S Ribosomal DNA in ''E-Liquids'' From Disposable Electronic Cigarettes** Kessler B. Shumate, BS*; Michelle R. Peace, PhD; Baneshwar Singh, PhD; Christopher Ehrhardt, PhD
11:30 am—1:00 pm	**Y115**	**Evaluating Non-Covalent Interactions Between PDMS Polymer and Decomposition-Related VOCs for Future Forensic Applications** Rushali Dargan, PhD; Yuan Xue, PhD; Ava Halanski, BS*
11:30 am—1:00 pm	**Y116**	**Cold Cases, New Perspectives: Examining Student Development Through Law Enforcement Partnerships** Emily Stiles*; Jacob Ramsey