

# VCU Department of Forensic Science

## AAFS Presentations 2017

### Tuesday, February 14th

- 11:25-11:50a **NIJ 2017 Forensic Science R&D Symposium** - An Optimized DNA Analysis Workflow for the Sampling, Extraction, and Concentration of DNA Obtained from Archived Latent Fingerprints. **April D. Solomon, Madison E. Hytinen, Aryn McClain, Marilyn Miller, Tracey Dawson Cruz \***
- 7:00-8:00p **Young Forensic Scientist Forum —Bring your own Poster Session—**qPCR Based STR Discrimination Using LDA & PCA Evaluation of High Resolution Melt Curve Data  
**Darianne C. Cloudy, BS\*, Kristi M. Kuehnert, MS, Sarah Seashols- Williams , PhD, Edward L. Boone, PhD, Tracey Dawson Cruz, PhD**
- 7:00-8:00p **Young Forensic Scientist Forum —Bring your own Poster Session—**Analysis of Commercial E-liquids Containing MDMB-FUBINACA  
**Rose I. Krakowiak, BS \*, Justin L. Poklis, BS, Carl Wolf, PhD, Alphonse Poklis, PhD. Michelle R. Peace, PhD**
- 7:00-8:00p **Young Forensic Scientist Forum —Bring your own Poster Session—**Evaluation of the Illumina ForenSeq DNA Signature Prep Kit and Promega PowerPlex Fusion System in the Analysis of Degraded Identical Twin Samples  
**Aminna McGee \*, Sarah Cavanaugh, MS, Tracey Dawson-Cruz , PhD, Sarah Seashols-Williams, PhD**

### Wednesday, February 15th

- 11:30-1:00p **A17** — Trace Element Analysis of Dental Enamel for the Geographic Attribution of Unidentified Remains  
**Robert H. Stein, BS\*; Tal Simmons, PhD; Christopher J. Ehrhardt, PhD; Jennifer L. Hankle, DMD**
- 11:30-1:00p **B8**— The Detection of MicroRNAs (miRNAs) in DNA Extraction Methods Commonly Used for Forensic Casework  
**Carolyn Lewis, BS\*, Tiffany R. Layne, MS, Sarah J. Seashols Williams, PhD**
- 11:30-1:00p **B12** — Trace Chemical Analysis of Potassium Permanganate Hypergolic Mixtures Analyzed with Inductively Coupled Plasma/Optical Emission Spectroscopy (ICP/OES)  
**Waldon Chen, BSc\*, Joseph B. McGee Turner, PhD; Eric Hazelrigg, MS; Christopher J. Ehrhardt, PhD**
- 11:30-1:00p **E1**— Bloodstain Pattern Analysis using 3D Laser Scanning Technology  
**Megan L. Jackson, BS; David J. Millard, MS; Marilyn T. Miller, EdD\***
- 11:30-1:00p **H10** — Predicting the Postmortem Submersion Interval (PMSI) using the Microbiome of Waterlogged Bone  
**Claire M. Cartozzo, MSFS\*; Tal Simmons, PhD; Edward Boone, PhD; Baneshwar Singh, PhD**
- 6:00-7:00p **Young Forensic Scientist Forum —Bring your own Slides Session—**Direct Quantitation and Direct Amplification of Low Template and Touch DNA  
**Kara Kovach \*, Sarah Seashols-Williams, PhD; Nuha Farhat, PhD; Susan Greenspoon, PhD**

### Thursday, February 16th

- 11:05-11:20a **B98**— A Novel Extraction-Polymerase Chain Reaction (PCR) Microdevice on a Rotation-Driven Platform: Buccal Swab to Short Tandem Repeat (STR) Product in Less Than Two Hours  
**Jordan Cox, MS\*; Teresa Sikes DeCarmen, MS; Catherine Cupples Connon, PhD; Kemper Gibson, BS; Kimberly Jackson; James P. Landers, PhD; Tracey Dawson Cruz, PhD**
- 11:30-1:00p **E34**— Gunshot residue documentation using 3D laser scanning methodology  
**Marilyn T. Miller, EdD\*; David J. Millard, MS; Megan L. Jackson, BS**
- 2:15-2:30p **B79** — Morphology and Microanalysis of Aluminum (Al) Powders from Amateur Improvised Explosive Device (IED) Methods  
**JenaMarie Baldaino, MS\*, Jack Hietpas, PhD; JoAnn Buscaglia, PhD**
- 4:40-4:55p **B108** — Microchip-Based Antibody-Mediated Differential Lysis of Sperm Cells  
**Molly E. Woodson, BA\*; Kemper Gibson, BS; Jordan Cox, MS; Kimberly Jackson; James P. Landers, PhD; Tracey Dawson Cruz, PhD**



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**Friday, February 17th**

- 10:45-11:00a **H95**— Embalmed Human Cadavers are not Sterile: The Impact of Two Embalming Methods on the Microbiome of Human Cadavers  
**Amelia A. Bussell, MSFS\***; **Cynthia Cornelissen, PhD**; **Richard Sikon, MS**; **Baneshwar Singh, PhD\***
- 11:30-1:00p **B131** — DNA Recovery from Waterlogged Bone: A Test of Three Methods  
**Claire M. Cartozzo, MSFS\***; **Baneshwar Singh, PhD**; **Edward Boone, PhD**; **Tal Simmons, PhD**
- 11:30-1:00 **E-77**- Benefit or Burden? Forensic Science Outreach  
**Kelly L. Knight, MS\***; **Padmanabhan Seshaiyer, PhD**
- 11:30-1:00 **B136**— The Evaluation of a Hand-Held Raman Spectrometer for Field Identification of Controlled Substances.  
**Madison Veronica Roussel, BS\***; **Marilyn T. Miller, EdD**; **Rebecca C. Nugent, MS**; **Adam Beene III, MNS**
- 1:15-1:30p **H128**— Changes in Bacterial Community Structure and the Estimation of Long-Term Postmortem Interval (PMI)  
**Michael S. Woolf, MS \***; **Vanessa Sufrin, MS**; **Tal Simmons, PhD**; **Baneshwar Singh, PhD \***
- 3:30-3:45p **E104**— Preparation of "Gummy" Quality Control (QC) Material and the Analysis of Edible "Gummy" Products.  
**Autumn C. Cooper\***; **Carl E. Wolf II, PhD**; **Justin L. Poklis, BS**; **Alphonse Poklis, PhD**
- 4:35-4:50p **B197**— The Evaluation of a Nanopore Sequencing Platform for Concordance and Reliability in Short Tandem Repeat (STR) Analysis  
**Clare M. Diester, BS\***; **Tracey Dawson Cruz, PhD**; **Reema Elshaer, BS**; **Amelia A. Bussell, MSFS**; **Bonnie Brown, PhD**; **Sarah J. Seashols Williams, PhD**

