

**VCU Department of Forensic Science Faculty and Graduate Student
Presentations and Publications**

2012-2013

Publications

Davis CP, Illescas M, Tirado C, Lopez R, Budowle B, Dawson Cruz T. (2012) A Case of Amelogenin Y-null: A simple primer binding mutation or unusual genetic anomaly? *Legal Med.* 14:320-323.

Saeed M, Berlin RM, Dawson Cruz T. (2012) Exploring the Utility of Genetic Markers for Predicting Biological Age. *Legal Med.* 14:279-285.

Tomberlin, J.K., Crippen, T.L., Tarone, A.M., **Singh, B.** et al. (2012) Interkingdom responses of flies to bacteria mediated by fly physiology and bacterial quorum sensing. *Animal Behaviour*, 84, 1449-1456.

Monkres J, Luckie C, Nicholas, Petraco NDK and Milam A. (2013) Comparison and Statistical Analysis of Land Impressions from Consecutively Rifled Barrels. *AFTE Journal* 45(1): 3-20.

Samano KL, Poklis JL, Lichtman AH, **Poklis A.** Development of a High-Performance Liquid Chromatography-Tandem Mass Spectrometry Method for the Identification and Quantification of CP-47,497, CP-47,497-C8 and JWH-250 in Mouse Brain. *J Anal Toxicol.* 2014 May 9.

Wolf CE, Goldstein A, Poklis JL, Poklis A. Evaluation of an enzyme immunoassay for the detection of methadone metabolite EDDP [2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine] in urine. *J Clin Lab Anal.* 2014 Mar;28(2):136-40.

Rose SR, Poklis JL, **Poklis A.** A case of 25I-NBOMe (25-I) intoxication: a new potent 5-HT2A agonist designer drug. *Clin Toxicol (Phila).* 2013 Mar;51(3):174-7.

Poklis JL, **Wolf CE, Goldstein A, Wolfe ML, Poklis A.** Detection and quantification of tricyclic antidepressants and other psychoactive drugs in urine by HPLC/MS/MS for pain management compliance testing. *J Clin Lab Anal.* 2012 Jul;26(4):286-94.

Wiebelhaus JM, Poklis JL, **Poklis A, Vann RE, Lichtman AH, Wise LE.** Inhalation exposure to smoke from synthetic "marijuana" produces potent cannabimimetic effects in mice. *Drug Alcohol Depend.* 2012 Dec 1;126(3):316-23.

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Zheng L, Crippen TL, **Singh B**, Tarone AM, Dowd S, Yu Z, Wood TK, Tomberlin JK. A survey of bacterial diversity from successive life stages of black soldier fly (Diptera: Stratiomyidae) by using 16S rDNA pyrosequencing. *J Med Entomol.* 2013 May;50(3):647-58.

Zheng L, Crippen TL, Holmes L, **Singh B**, Pimsler ML, Benbow ME, Tarone AM, Dowd S, Yu Z, Vanlaerhoven SL, Wood TK, Tomberlin JK. Bacteria mediate oviposition by the black soldier fly, *Hermetia illucens* (L.), (Diptera: Stratiomyidae). *Sci Rep.* 2013;3:2563.

Singh B, Wells JD. Molecular systematics of the Calliphoridae (Diptera: Oestroidea): evidence from one mitochondrial and three nuclear genes. *J Med Entomol.* 2013 Jan;50(1):15-23.

P. Gardner, M. F. Bertino, R. Weimer, **E. Hazelrigg**, "Analysis of Lipsticks Using Raman Spectroscopy", *Forensic Science International* **232**, 67-72 (2013).

Presentations

T Sikes Y Ouyang, H Sloane, **T Dawson Cruz**, J Landers. "Development of an Integrated Microdevice for DNA Extraction and Amplification of Forensic Samples Using Infrared-Mediated Heating and Centrifugal Force." Mid-Atlantic Academy of Forensic Scientists Annual Meeting (2013). Roanoke, VA.

HE Parker (speaker), *LC Oliver*, T Bille, S Weitz, **T Dawson Cruz**. Development of a Scorpion-based multiplex qPCR assay for pre-screening mixture detection. Mid-Atlantic Academy of Forensic Scientists Annual Meeting (2013). Roanoke, VA.

M Goldstein (speaker), **T Dawson Cruz**. Validation of the QIAGEN® QIAcube for DNA Extraction. Mid-Atlantic Academy of Forensic Scientists Annual Meeting (2013). Roanoke, VA.

C Phillip. "Integrated Chemometric Analysis of Matchsticks for Forensic Classification and Commercial Brand Attribution". Mid-Atlantic Academy of Forensic Scientists Annual Meeting (2013). Roanoke, VA

J Easter. "Pharmaceutical Identifier Confirmation Via AccuTOF DART." Mid-Atlantic Academy of Forensic Scientists Annual Meeting (2013). Roanoke, VA.

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L Camarena. "Optimized Centrifugal Methods for Separation of Semen From Superabsorbent Polymers for Forensic Analysis." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

L Dean. "Forensic Mixture Analysis: Pre-Emptive Separation of Whole Cells With Flow Cytometry and MHC Class I Allele Tagging." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

J Easter. "Pharmaceutical Identifier Confirmation Via AccuTOF DART." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

O Eljordi. "Evaluation of the Chemical Derivatization of Nine Different Cathinone Bath Salts Analogs." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

O Eljordi. "Analysis and Characterization of the First and Second Generation Raving Dragon Novelty Bath Salts." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

P Gardner. "Evaluation of Lip Cosmetics Using Raman Spectroscopy." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

J Haithcock, C Stanciu. "Cell Surface Hydrophobicity of Biothreat Agents: A Novel Forensic Signature for the Attribution of Microbial Biocrimes." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

J Neifield. "Development of a LC/MS/MS Method for the Detection and Quantitation of Zolpidem, Eszopiclone, Ramelteon, and Zaleplon in Blood and Urine." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

H Parker, T. Bille, LC Oliver, T Dawson Cruz. "Development of Scorpion-Based Multiplex qPCR Assay for Pre-Screening Mixture Detection." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

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CN Thompson, T Dawson Cruz, M Grass. "Quantity and Quality of DNA recovered from Latent Fingerprints Processed with three different methods. American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

C Phillip. "Forensic Attribution of Matchsticks Using Integrated Analysis With Morphological Examination, Fourier Transform Infrared Spectroscopy (FTIR), Scanning Electron Microscopy-Energy Dispersive X-Ray Spectroscopy (SEM-EDS), and Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

L Phillips. "Gas Chromatography-Mass Spectrometry and Trace Metal Analysis of Pollen Samples: Novel Forensic Signatures for Geolocation of Trace Evidence." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

T Shaw. "Detection and Disposition of JWH-250, CP47,497, and its C8 Homologue in Mice After Inhalation Exposure Using a HPLC/MS/MS Method." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

T Sikes, Y Ouyang, H Sloane, T Dawson Cruz, JP Landers. "Development of an Integrated Microdevice for DNA Extraction and Amplification of Forensic Samples Using Infrared-Mediated Heating and Centrifugal Force." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

LC Oliver (speaker), T Bille, S Weitz, T Dawson Cruz . Quantitative PCR for rapid gel electrophoresis-based pre-STR mixture detection. American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

S Watanabe. "Testing a combined Approach for DNA and Trace Evidence Recovery Using Tape Lifting on Forensically Important Substrates." American Academy of Forensic Sciences Annual Meeting (2013). Washington, DC.

Singh, B. Life after Death: Utility of Insects and Microbes in Forensic Investigations. Institute for Genome Science, University of Maryland School of Medicine, Baltimore, MD, June 27, 2013.

Singh, B., Tarone, A.M., Crippen, T.L. et al. Bacterial diversity associated with flies of forensic importance. Entomological Society of America annual meeting, Knoxville, TN, November 13, 2012.

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Tarone, A.M., **Singh, B.**, Crippen, T.L. et. al. Behavioral and community analyses of bacteria associated with *Lucilia* species. Entomological Society of America annual meeting, Knoxville, TN, November 13, 2012.

SA. Greenspoon, *Web Bist, Colleen Kearney* (2012) Sperm DNA Identification Using a DNA Methylation Based Assay. First Annual Advanced DNA Technical Workshop.

T. Dawson Cruz. Advancing Forensic Human DNA Analysis . NC State University, Forensic Sciences Institute, 5th Annual Forensic Science Symposium, Raleigh, NC, December 2012

T. Dawson Cruz. Biological DNA analysis for conservation of endangered species . Duke University, Nicolas School of the Environment, Durham, NC, March 2013