

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

2011-2012

Publications

Chun-Jung H, Stewart JK, Franco RL, Evans RK, Lee ZP, **Dawson Cruz T**, Webb HE, Acevedo EO. (2011) LPS-stimulated tumor necrosis factor-alpha and interleukin-6 mRNA and cytokine responses following acute psychological stress. *Psychoneuroendocrinology* 36:1553-1561.

Davis CP, Chelland L, Pavlova VR, *Illescas MJ*, *Brown KL*, **Dawson Cruz T**. (2011) Multiplex short tandem repeat amplification of low template DNA samples with the addition of proofreading enzymes. *Journal of Forensic Sciences* 56(3):726-732.

Garvin EJ, Koons RD. (2011) Evaluation of match criteria used for the comparison of refractive index of glass fragments. *Journal of Forensic Sciences* 56(2):491-500.

Hibbard R, Goodpaster JV, Evans MR (2011). Factors affecting the forensic examination of automotive lubricating oils. *Journal of Forensic Sciences* 56(2):741-753.

Howlett SE, **Steiner RR**. (2011) Validation of thin-layer chromatography with AccuTOF-DART™ detection for forensic drug analysis. *Journal of Forensic Sciences* 56(5):1261-1267.

Poklis JL, Amira D, Wise LE, Wiebelhaus JM, *Haggerty BJ*, **Poklis A**. (2012) Detection and disposition of JWH-018 and JWH-073 in mice after exposure to “Magic Gold” smoke. *Forensic Science International* 220(1-3):91-96.

Poklis JL, Amira D, Wise LE, Wiebelhaus JM, *Haggerty BJ*, Lictman AH, **Poklis A**. (2012) Determination of naphthalene-1-yl-(1-pentylindol-3-yl) methanone (JWH-018) in mouse blood and tissue after inhalation exposure to “Buzz” smoke by HPLC/MS/MS of JWH-018. *Biomedical Chromatography*

Seashols SJ, *Cross HD*, Shrader D, Rief A. A comparison of chemical enhancements for the detection of latent blood. *Journal of Forensic Sciences* Accepted, In-Press.

Tate CM, Nuñez AN, *Goldstein CA*, Gomes I, Robertson JM, Kavlick MF, Budowle B. (2012) Evaluation of circular DNA substrates for whole genome amplification prior to forensic analysis. *Forensic Science International: Genetics* 6(2):185-190.

Wolf CE, *Kester-Florin SJ*, **Poklis A** (2012). A HPLC-MS method to detect and quantify guanfacine in urine. *Clinical Chemistry and Laboratory Medicine* 50(3):535-7.

Talks

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D. Amira (*speaker*), J. L. Poklis, L. E. Wise, J. M. Wiebelhaus, and **A. Poklis**. "Dose Dependent Disposition of CB1 Agonist JWH-018 in the Mouse following Inhalation of the Herbal Incense 'Buzz'". Society of Forensic Toxicologists, September, 2011.

R. M. Berlin (speaker), J. Barker, J. T. Thomas, B. L. Brown, E. Boone, and T. Dawson Cruz. "Method Development for Analyzing SNPs associated with Stature". 2012 American Academy of Forensic Sciences Meeting, February, 2012.

S. J. Boyd (*speaker*), D. Ye, M. F. Bertino, and **S. J. Seashols**. "Application of Surface Enhanced Raman Spectroscopy to the Forensic Analysis of Blood." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

B. Eckenrode (*speaker*), D. Beussman, P. T. Caldwell, D. Cho, L. DeGreeff, D. Snyder, *S. J. Milam*, R. Stockham, N. Dulgerian, M. Grime, W. Warren, and C. Tipple. "Defining a Reliable Human Decomposition Odor Profile for Forensic Canine Investigation." 2012 American Academy of Forensic Sciences, February, 2012.

B. Glasscock (*speaker*), N. Hardell, *M. J. Sciarretta*, and **S. J. Seashols**. "Separation of Semen from Superabsorbent Polymers for Forensic Analysis." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

A. M. Goldstein (speaker), J. L. Poklis, C. E. Wolf, and A. Poklis. "Evaluation of Lin-Zhi International EDDP Enzyme Immunoassay for the Determination of Methadone Metabolite in Urine. 2012 American Academy of Forensic Sciences Meeting, February, 2012.

S. E. Howlett (speaker), L. J. Gioeni, J. Donfack, and J. M. Robertson. "Evaluation of SampleMatrix[®] for DNA Storage." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

L. C. Oliver (presenter), T. Bille, S. Weitz, and T. Dawson Cruz. "Pre-Amplification Mixture Identification Using Real-Time PCR." 2012 Mid-Atlantic Association of Forensic Scientists Meeting, May, 2012.

A. C. Phares (speaker), K. M. Horseman-Hall, S. E. Rodgers, B. Shannon, and B. Jenkins. "Evaluation of Automated Systems in a Mitochondrial DNA Unit." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

J. Ring (speaker), K. R. Johnson, B. Jenkins, S. Greenspoon. "Measurement of a Stochastic Threshold and Development of a Reduced Volume Reaction for PowerPlex[®] 16 HS and Identifiler[™] Plus." 2012 American Academy of Forensic Sciences, February, 2012.

J.D. Roper-Miller, P.R. Stout, *K. Moore (speaker), R. Steiner, M. Peace, J.M. Mitchell, and M.R. Baylor*. "Status Update for ForensicDB: A Web-Accessible Spectral

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Database for Shared Utilization by Forensic Laboratories.” 2011 Society of Forensic Toxicologists Meeting, September, 2011.

R.R. Steiner (*speaker*). “Drug Smuggling Doll”, *History Detectives* television segment, Episode 908, air date 8/30/2011, Oregon Public Broadcasting; <http://www.pbs.org/opb/historydetectives/investigation/drug-smuggling-doll> .

J. T. Thomas, *R. M. Berlin*, and **T. Dawson Cruz** (*speaker*). “Evaluation of Concordance, Sensitivity, STR Amplification Input, and a True Zero Value for the Qiagen Investigator™ Quantiplex Kit.” 2012 American Academy of Forensic Sciences Meeting, February, 2012.

Posters

J. Barker (*presenter*), **S.A. Greenspoon**, B. Jenkins. “The Utilization of Pressure Cycling Technology to Enhance DNA Extraction from Low Template Samples.” 22nd International Symposium on Human Identification, October, 2011.

J. Barker (*presenter*), **S. A. Greenspoon**, and B. Jenkins. “The Utilization of Pressure Cycling Technology to Enhance DNA Extraction from Low Template Samples.” Young Forensic Scientists Forum, 2012 American Academy of Forensic Sciences Meeting, February, 2012.

J. Barker (*presenter*), **S. A. Greenspoon**, and B. Jenkins. “The Utilization of Pressure Cycling Technology to Enhance DNA Extraction from Low Template Samples.” 15th Annual Virginia Commonwealth University Graduate Student Research Symposium & Exhibit, April, 2012.

J. Bartman (*presenter*), L. James, D. Nelson, S. Chen, and **T. Dawson Cruz**. “Examination of DNA Collection and Extraction Techniques from Nitrile Gloves. Young Forensic Scientists Forum. 2012 American Academy of Forensic Sciences Meeting, February, 2012.

J. Bartman (*presenter*), L. James, D. Nelson, S. Chen, and **T. Dawson Cruz**. “Examination of DNA Collection and Extraction Techniques from Nitrile Gloves. 15th Annual Virginia Commonwealth University Graduate Student Research Symposium & Exhibit, April, 2012.

B. Glasscock (*presenter*), N. Hardell, *M. J. Sciarretta*, and **S. J. Seashols**. “Separation of Semen from Superabsorbent Polymers for Forensic Analysis.” 2012 American Academy of Forensic Sciences Meeting, February, 2012.

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S. E. Howlett (presenter), L. J. Gioeni, J. Donfack, and J. M. Robertson. "Evaluation of SampleMatrix[®] for DNA Storage." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

G. Jang (presenter), P. O'Donnell, and S. Montpetit. "The Optimization of Concentrating DNA Extracts with Water and TE Buffer." Young Forensic Scientists Forum. 2012 American Academy of Forensic Sciences Meeting, February, 2012.

G. Jang (presenter), P. O'Donnell, and S. Montpetit. "The Optimization of Concentrating DNA Extracts with Water and TE Buffer." 15th Annual Virginia Commonwealth University Graduate Research Symposium & Exhibit, April, 2012.

H. Krause (presenter), M. Fahrner, A. Perry, S. Johnson, and **C.M. Kelly**. "Analytical and Stochastic Threshold Validation for the ABI 3100 and 3130 Using the AmpFISTR Identifier Amplification Kit." 22nd International Symposium on Human Identification, October, 2011.

C. Luckie, N. D. K. Petraco, *J. Monkres (presenter)*, and A. Milam. "Comparison and Statistical Analysis of Land Impressions from Consecutively Rifled Barrels." Young Forensic Scientists Forum, 2012 American Academy of Forensic Sciences, February, 2012.

S. J. Milam (presenter), D. Beussman, B. Rushing, R. Stockham, B. Eckenrode, and C. Tipple. "Differentiation of Human Subjects Based on Scent Profile." 2012 American Academy of Forensic Sciences, February, 2012.

D. L. Murphy, R. Alvillar, **C. Ehrhardt**, J. M. Robertson (presenter), and J. D. Bannan. "Forensic Signatures of Laboratory Grown Bacillus Spores Based on Cellular Lipid Composition: Implications for the Analysis and Attribution of Microbial Evidence Collected from a Bio-Crime." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

L. C. Oliver (presenter), T. Bille, S. Weitz, and **T. Dawson Cruz**. "Pre-Amplification Mixture Identification Using Real-Time PCR." Young Forensic Scientists Forum, 2012 American Academy of Forensic Sciences Meeting, February, 2012.

L. C. Oliver (presenter), T. Bille, S. Weitz, and **T. Dawson Cruz**. "Pre-Amplification Mixture Identification Using Real-Time PCR." 15th Annual Virginia Commonwealth University Graduate Research Symposium & Exhibit, April, 2012.

A. Phares (presenter), K. M. Horsman-Hall, *S. E. Rodgers*, B. Shannon, and B. Jenkins. "Evaluation of Automated Systems in a Mitochondrial DNA Unit." (FSF Emerging Forensic Scientist Award Paper Presentation), 2012 American Academy of Forensic Sciences Meeting, February, 2012.

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A. Phares (presenter), K. M. Horseman-Hall, *S. E. Rodgers*, B. Shannon, and B. Jenkins. "Evaluation of Automated Systems in a Mitochondrial DNA Unit." 15th Annual Virginia Commonwealth University Graduate Research Symposium & Exhibit, April, 2012.

J.D. Ring (presenter), *K. Johnson*, B. Jenkins, and **S.A. Greenspoon**. "Measurement of a Stochastic Threshold and Development of a Reduced Volume Reaction for PowerPlex 16 HS and Identifiler Plus." 22nd International Symposium on Human Identification, October, 2011.

S. Rodgers (presenter), **S. Greenspoon**, and B. Jenkins. "Automation of DNA Purification for Mitochondrial DNA Analysis." 22nd International Symposium on Human Identification, October, 2011.

M. Saeed, S. M. Rogers, S. M. Dineen, L. E. Willis, and J. M. Robertson (presenter). "Restoration of Partial Short Tandem Repeat Profiles Resulting from DNA Lesions Induced by Bleach and Hydrogen Peroxide Treatments." 2012 American Academy of Forensic Sciences Meeting, February, 2012.

M. Saeed (presenter), K. Scott, S. Rogers, S. Dineen, L. Willis, and J. Robertson. "Restoration of Partial Short Tandem Repeat Profiles Resulting from DNA Lesions Induced by Bleach and Hydrogen Peroxide Treatments." 15th Annual Virginia Commonwealth University Graduate Research Symposium & Exhibit, April, 2012.

K. van den Heever (presenter), J. Clary, *E. Przybylski*, and **R. Weimer**. "Creation of an Explosives Database Using Raman Spectroscopy and Evaluation of Signal Enhancement Techniques for Problematic Explosives Samples." Young Forensic Scientists Forum, 2012 American Academy of Forensic Sciences, February, 2012.

K. van den Heever (presenter), J. Clary, *E. Przybylski*, and **R. Weimer**. "Creation of an Explosives Database Using Raman Spectroscopy and Evaluation of Signal Enhancement Techniques for Problematic Explosives Samples." 15th Annual Virginia Commonwealth University Graduate Student Research Symposium & Exhibit, April, 2012.