



**SAM HOUSTON STATE  
UNIVERSITY**

**DEPARTMENT OF  
FORENSIC SCIENCE**

**SCIENTIFIC  
PUBLICATIONS**

## Academic Year 2018-2019

- Jessica Winborn and Sarah Kerrigan. **Quantitative Analysis of Desomorphine in Blood and Urine Using Solid Phase Extraction and Gas Chromatography-Mass Spectrometry**, Journal of Chromatography B, epub ahead of print DOI.org/10.1016/j.jchromb.2018.12.022 (Dec 2018).
- Eric Cooke, Todd Armstrong, Danielle Boisvert, Jessica Wells, Richard Lewis, Sheree Hughes-Stamm and David Gangitano. **The Relationship between the MAOA-uVNTR Polymorphism, Delinquent Peer Affiliation, and Antisocial Behavior with a Consideration of Sex Differences**. Psychiatric Quarterly, 89(4), 841-853 (Dec 2018).
- Michelle Harrel, Carrie Mayes, David Gangitano and Sheree Hughes-Stamm. **Evaluation of a Powder-free DNA Extraction Method for Skeletal Remains**. Journal of Forensic Science, 63(6), 1819-1823 (Nov 2018).
- Patrick Buzzini, Carrie Polston and Madison Schackmuth. **On the Criteria for the Discrimination of Inkjet Printer Inks using Micro Raman Spectroscopy**. Journal of Raman Spectroscopy, 49(11), 1791-1801 (Nov 2018).
- Rachel Houston, Carrie Mayes, Jonathan King, Sheree Hughes-Stamm and David Gangitano. **Massively Parallel Sequencing of 12 Autosomal STRs in Cannabis sativa**. Electrophoresis, 39(22), 2906-2911 (Nov 2018).
- Britni Skillman and Sarah Kerrigan. **Side-by-Side Comparison of LC-Q/TOF-MS and LC-MS/MS Validation Parameters for the Detection of Suvorexant in Blood**. Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Christina Smith and Madeleine Swortwood. **Quantification of U-47700 and its Metabolites in Plasma by LC-MS/MS**. Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Janna Lowry, Michael Truver and Madeleine Swortwood. **Quantification of Novel Synthetic Opioids in Blood Using LC-MS/MS**. Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Jessica Winborn, Stephanie Basiliere and Sarah Kerrigan. **Identification of Desomorphine in Urine**. Proceedings from the Society of Forensic Toxicologists (Oct 2018).
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- Mackenzie Hale and Madeleine Swortwood. **Identification of Novel Synthetic Benzodiazepines by GC-MS.** Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Madeleine Swortwood. **Effective Communication Skills for Successful Forensic Toxicology Practice: How to Search for Relevant References.** Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Madeleine Swortwood. **Incorporating the Updated NSC ADID Lab Guidelines into Casework: Pharmacology of Fentanyl, Buprenorphine, and Tramadol.** Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Madison Schackmuth and Sarah Kerrigan. **Immunoassay-Based Detection of Fentanyl Analogs in Forensic Toxicology.** Forensic Toxicology, epub ahead of print DOI:10.1007%2Fs11419-018-0445-6 (Oct 2018).
- Madison Schackmuth and Sarah Kerrigan. **Immunoassay-Based Detection of Fentanyl Analogs in Forensic Toxicology.** Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Michael Truver and Madeleine Swortwood. **Quantitative Analysis of Novel Synthetic Opioids, Morphine, and Buprenorphine in Oral Fluid by LC-MS/MS.** Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Stephanie Basiliere and Sarah Kerrigan. **Phase I Metabolism of Mitragynine using In Vitro Methods.** Proceedings from the Society of Forensic Toxicologists (Oct 2018).
- Xiangpei Zeng, Kyleen Elwick, Carrie Mayes, Maiko Takahashi, Jonathan King, David Gangitano, Bruce Budowle and Sheree Hughes-Stamm. **Assessment of Impact of DNA Extraction Methods on Analysis of Human Remain Samples on Massively Parallel Sequencing Success.** International Journal of Legal Medicine, epub ahead of print DOI: 10.1007%2Fs00414-018-1955-9 (Oct 2018).
- Amy Sorensen, Madeline Roman and Sheree Hughes-Stamm. **In-field Collection and Preservation of Decomposing Human Tissues to Facilitate Rapid Purification and STR Typing.** Forensic Science International: Genetics, 36, 124-129 (Sept 2018).
- Esiri Tasker, Carrie Mayes, Bobby LaRue and Sheree Hughes-Stamm. **microFLOQ®: Collection and Direct Amplification Methods Using the GlobalFiler™ Kit for DNA Recovered from Common Pipe Bomb Components.** Proceedings from the International Symposium on Human Identification (Sept 2018).

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Ryan Gutierrez, Kari Graham, Kyleen Elwick, Carrie Mayes and Bobby LaRue. **A Cost-effective Workflow for Massively Parallel Sequencing of Drug Metabolising Enzymes.** Proceedings from the International Symposium on Human Identification (Sept 2018).

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- Britni Skillman and Sarah Kerrigan. **Quantification of Suvorexant in Blood Using Liquid Chromatography-Quadrupole/Time of Flight (LC-Q/TOF) Mass Spectrometry.** *Journal of Chromatography B*, 1091, 87-95 (Aug 2018).
- Carrie Polston, Williams Mazzella, Martin Furbach and Patrick Buzzini. **Assessing the Forensic Potential of Magnetic Flux Measurements of Toners.** Proceedings from the American Society of Questioned Document Examiners (Aug 2018).
- Elizabeth Chesna, Todd Armstrong, Peyton Howell, Jessica Roberts, Shawn Keller, Charity Beherec, Danielle Boisvert, Ramiro Salas and David Gangitano. **Sequence Variation in Genes Affecting Dopamine Turnover and Oxytocin in a Sample of Male Inmates.** Proceedings from the Association of Forensic DNA Analysts and Administrators (Aug 2018).
- Jessica Winborn, Donovan Haines and Sarah Kerrigan. **In Vitro Metabolism of Desomorphine.** *Forensic Science International*, 289, 140-149 (Aug 2018).
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- Rachel Houston, Carrie Mayes, Jonathan King, Sheree Hughes-Stamm and David Gangitano. **Massively Parallel Sequencing of 12 Autosomal STRs in Cannabis sativa.** Proceedings from the Association of Forensic DNA Analysts and Administrators (Aug 2018).
- Debbie Powers, Stephen Erickson and Madeleine Swortwood. **Quantification of Morphine, Codeine, and Thebaine in Home-Brewed Poppy Seed Tea by LC-MS/MS.** *Journal of Forensic Sciences*, 63(4), 1229-1235 (Jul 2018).
- Edward Suzuki and Patrick Buzzini. **Applications of Raman Spectroscopy in Forensic Science. I: Principles, Comparison to Infrared Spectroscopy, and Instrumentation.** *Forensic Science Review*, 30, 111-135 (Jul 2018).
- Edward Suzuki and Patrick Buzzini. **Applications of Raman Spectroscopy in Forensic Science. II: Analysis Considerations, Spectral Interpretation, and Examination of Evidence.** *Forensic Science Review*, 30, 137-169 (Jul 2018).

- Kyleen Elwick, Xiangpei Zeng, Jonathan King, Bruce Budowle and Sheree Hughes-Stamm. **Comparative Tolerance of Two Massively Parallel Sequencing Systems to Common PCR Inhibitors.** International Journal of Legal Medicine, 132(4), 983-995 (Jul 2018).
- Lindsay Glicksberg, Ruth Winecker, Caitlin Miller and Sarah Kerrigan. **Postmortem Distribution and Redistribution of Synthetic Cathinones.** Forensic Toxicology, 36(2), 291-303 (Jul 2018).
- Amy Sorensen, Madeline Roman and Sheree Hughes-Stamm. **In-field Collection and Preservation of Decomposing Human Tissues to Facilitate Rapid Purification and STR Typing.** Forensic Science International: Genetics, 36, 124-129 (Jun 2018).
- Carrie Mayes, Sarah Seashols-Williams and Sheree Hughes-Stamm. **Initial Evaluation of the Stability and Persistence of mRNA and miRNA for Body Fluid Identification in Forensic Samples.** Proceedings from the Gordon Research Conference (Jun 2018).
- Carrie Mayes, Sarah Seashols-Williams and Sheree Hughes-Stamm. **Initial Evaluation of the Stability and Persistence of mRNA and miRNA for Body Fluid Identification in Forensic Samples.** Proceedings from the Gordon Research Seminar (Jun 2018).
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- Mazzella Williams, Martin Furbach, Bing Li and Carrie Polston. **Is Magnetic Flux a Valuable Tool for the Analysis of Electro Photographic Printed Documents?** Proceedings from the International Symposium on Sino Swiss Evidence Science (Jun 2018), Hangzhou, China.
- Meggan King, Patrick Buzzini and Carrie Polston. **The Effect of Ultraviolet Radiation on the Microspectrophotometry (MSP) of Dyed Fibers Part 1- Photobleaching Effect.** Proceedings from Inter/Micro (Jun 2018).

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Lindsay Glicksberg, Sumandeep Rana and Sarah Kerrigan. **Cathinone Stability in Authentic Urine Specimens.** Forensic Science International, 286, 54-60 (May 2018).

Michelle Harrel, David Gangitano and Sheree Hughes-Stamm. **The Effects of Extra PCR Cycles When Amplifying Skeletal Samples with the GlobalFlier PCR Amplification Kit.** International Journal of Legal Medicine, epub ahead of print DOI: 10.1007/s00414-018-1860-2 (May 2018).



- Rachel Houston, Carrie Mayes, Jonathan King, Sheree Hughes-Stamm and David Gangitano. **Innovative Molecular Approaches for Cannabis sativa DNA Typing.** Proceedings from the Qiagen Investigator Forum (May 2018).
- Rachel Houston, Matthew Birck, Bobby LaRue, Sheree Hughes-Stamm and David Gangitano. **Nuclear, Chloroplast, and Mitochondrial Data of a US Cannabis DNA Database.** International Journal of Legal Medicine, 132(3), 713-725 (May 2018).
- Sun Yi Li, Jorn Yu and Ilona Petrikovics. **Trace Level Extraction of the Cyanide Biomarker, 2-amino-2-thiazoline-4-carboxylic Acid (ATCA), from Biological Samples by Applying Magnetic Nanomaterials in Dispersive Solid Phase Extraction.** Proceedings from the U. S. Army Medical Defense Bioscience Review (Apr 2018).
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- Barry Logan, Amanda D’Orazio, Amanda Mohr, Jennifer Limoges, Amy Miles, Colleen Scarneo, Sarah Kerrigan, Laura Liddicoat, Karen Scott and Marilyn Huestis. **Recommendations for Toxicological Investigation of Drug-Impaired Driving and Motor Vehicle Fatalities—2017 Update.** Journal of Analytical Toxicology, 42(2), 63-68 (March 2018).
- Lindsay Glicksberg and Sarah Kerrigan. **Stability of Synthetic Cathinones in Urine.** Journal of Analytical Toxicology, 42(1), 77-87 (Mar 2018).
- Stephanie Basiliere, Kelsie Bryand and Sarah Kerrigan. **Identification of Five Mitragyna Alkaloids in Urine Using Liquid Chromatography-Quadrupole/Time of Flight Mass Spectrometry.** Journal of Chromatography B, 1080, 11-19 (Mar 2018).
- Amy Sorensen Holmes, David Gangitano and Sheree Hughes-Stamm. **Alternate Methods for Collection, Room Temperature Storage, and Processing of DNA Samples from Human Remains: A New DVI Approach.** Proceedings from Pittcon Conference & Expo (Feb 2018).
- Austin McDaniel, Frank Liu and Jorn Yu. **Application of Headspace Solid Phase Microextraction in Chemical Forensics.** Proceedings from Pittcon Conference & Expo (Feb 2018).



- Carrie Mayes, Sarah Seashols-Williams and Sheree Hughes-Stamm. **Identifying Forensically Relevant Body Fluids Using a Capillary Electrophoresis Based miRNA Multiplex.** Proceedings from Pittcon Conference & Expo (Feb 2018).
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- Christopher Palenik, Edward Suzuki, Andrew Bowen and Patrick Buzzini. **Applications of Raman Spectroscopy for Trace Evidence Examinations.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
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- Elizabeth Chesna, Ana Blanco, Gabriella Cansino-Jones, Peyton Gandy, Jessica Wells, Danielle Boisvert, Todd Armstrong, Sheree Hughes-Stamm and David Gangitano. **Variation in Genes Affecting Dopamine Turnover, Oxytocin, and Serotonin in Inmate and Student Populations.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Esiri Tasker, Sheree Hughes-Stamm and Bobby LaRue. **Efficacy of DNA Recovery and Room-Temperature Storage from Assault Rifle Magazines.** Proceedings from Pittcon Conference & Expo (Feb 2018).
- Jennifer Kiely, Aaron Lynne and Jessica Metcalf. **Using Microbial Clocks in Human Cadaver Ribs as a Postmortem Tool.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Jennifer Turner, Robert Baldwin, Scott Golightly, Pamela Zelbst and Jorn Chi-Chung Yu. **An Examination of Striations on Bullets Discharged from 3D-Printed Metallic Gun Barrels.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Justin Day, Harry Ehmann and Jorn Chi-Chung Yu. **The Identification of Various Controlled Substances by Headspace Chemical Analysis using Headspace Solid-Phase Microextraction and Gas Chromatography/Mass Spectrometry.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Kari Graham, Ryan Gutierrez, Kyleen Elwick, Sheree Hughes-Stamm and Bobby LaRue. **A Novel Workflow for Identifying Phenotypic Polymorphisms in**

- Detoxification Enzymes Associated with Drug Metabolism.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Kyleen Elwick, Carrie Mayes and Sheree Hughes-Stamm. **Comparative Sensitivity and Inhibitor Tolerance of GlobalFiler® PCR Amplification and Investigator® 24plex QS Kits for Challenging Samples.** Journal of Legal Medicine (Tokyo), 32, 31-36 (Feb 2018).
- Kyleen Elwick, Xiangpei Zeng, Jonathan King, Bruce Budowle and Sheree Hughes-Stamm. **Evaluation of Five Common Extraction Methods for Analysis of Human Remain Samples on Massively Parallel Sequencing Success.** Proceedings from Pittcon Conference & Expo (Feb 2018).
- Lauren Perry, Sun Yi Li and Jorn Chi-Chung Yu. **Detection of Phytocannabinoids from Buccal Swabs Using One Vial Headspace Vaporization Derivatization Coupled with SPME/GC/MS.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Lindsay Glicksberg, Ruth Winecker, Caitlin Miller and Sarah Kerrigan. **Post Mortem Tissue Distribution of Synthetic Cathinones.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Lindsay Glicksberg. **Synthetic Cathinone Stability in Blood Using Liquid Chromatography/Quadrupole Time-of-Flight/Mass Spectrometry (LC/qTOF/MS).** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Madeline Roman, Amy Sorensen, David Gangitano and Sheree Hughes-Stamm. **Effect of Body Mass and Cadaveric Bloat on DNA Quantity and Downstream STR Success.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Madison Schackmuth, Rachel Marvin and Erica Bakota. **A Validated Method for the Detection and Quantitation of Zolpidem, Zopiclone, and Zaleplon by Liquid-Liquid Extraction and Liquid Chromatography-Tandem Mass Spectrometry.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Michelle Harrel, Carrie Mayes, David Gangitano and Sheree Hughes-Stamm. **A Powder-free Approach to Extracting DNA from Environmentally Challenged Bone Samples.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).

- Patrick Buzzini. **The Characterization and Discrimination of Textile Fiber Dyes.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Patrick Buzzini, James Curran and Carrie Polston. **The Application of t-Stochastic Node Embedding and Random Forest Statistical Methods to Classify Raman Spectra of Inkjet Printer Inks for Purposes of Identification and Production of Investigative Leads.** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
- Rachel Houston, Sheree Hughes-Stamm and David Gangitano. **Nuclear, Chloroplast, and Mitochondrial Data of a US Cannabis DNA Database.** Proceedings from Pittcon Conference & Expo (Feb 2018).
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- Sun Yi Li, William Davis and Roger Kahn. **Assessing the Capability of Combining Elemental and Phase Mapping in Automotive Paint Systems Analysis Using Scanning Electron Microscope/Energy Dispersive Spectroscopy (SEM/EDS).** Proceedings from the American Academy of Forensic Sciences (Feb 2018).
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- Tiffany Franklin, Lauren Perry Wei-Chuan Shih and Jorn Yu. **Detection of Phytocannabinoids from Buccal Swabs by Headspace Solid Phase Microextraction - Gas Chromatography/Mass Spectrometry.** Analytical Methods, 10, 942-946 (Feb 2018).
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- Vincent Desiderio, Jr., Michael Rieders, Brandon Callahan, Agnes Winokur, Erin Worrel, John Casale, Karl Williams, Sherri Kacinko and Patrick Buzzini. **The Growing Phenomenon of the Epidemic of Synthetic Opioids and Forensic**

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- Britni Skillman, Kelsie Bryand and Sarah Kerrigan. **Quantification of Suvorexant in Blood Using LC-Q/TOF-MS.** Proceedings from the Society of Forensic Toxicologists (Jan 2018).
- Carrie Mayes, Sarah Seashols-Williams and Sheree Hughes-Stamm. **A Capillary Electrophoresis Method for Identifying Forensically Relevant Body Fluids Using miRNAs.** International Journal of Legal Medicine, 30, 1-4 (Jan 2018).
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- Madeleine Swortwood and Marilyn Huestis. **Cannabinoids in Oral Fluid: Roadside Screening and Markers of Recent Use.** Proceedings from the Association for Mass Spectrometry: Applications to the Clinical Laboratory Conference (Jan 2018).
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- Michael Truver and Sarah Kerrigan. **Optimized Digestion and Extraction of Endogenous Gamma Hydroxybutyrate (GHB) in Human Hair.** Proceedings from the Society of Forensic Toxicologists (Jan 2018).
- Patrick Buzzini, Norah Rudin, Keith Inman, Glenn Langenburg and Cedric Neumann. **Foundations of the Interpretation of Pattern and Trace Evidence (Source and Activity Levels).** Proceedings from the Impression, Pattern and Trace Evidence Symposium (Jan 2018).

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- Gretchen Dabbs, Joan Bytheway and Melissa Connor. **Comparing the Scoring of Human Decomposition from Digital Images to Scoring Using On-site Observations.** Journal of Forensic Science, 62(5), 1292-1296 (Sept 2017).
- Kyleen Elwick, Xiangpei Zeng, Jonathan King, Bruce Budowle and Sheree Hughes-Stamm. **Comparative Tolerance of Two Massively Parallel Sequencing**

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## Academic Year 2016-2017

- Amy Sorensen, David Gangitano and Sheree Hughes-Stamm. **Alternate Methods for Collection, Room Temperature Storage, and Processing of DNA Samples from Human Remains: A New DVI Approach.** Proceedings from the International Society for Forensic Genetics (Aug 2017), Seoul, Korea.
- Jessica Wells, Todd Armstrong, Danielle Boisvert, Richard Lewis, David Gangitano and Sheree Hughes-Stamm. **Stress, Genes, and Generalization Across Gender: Effects of MAOA and Stress Sensitivity of Crime and Delinquency.** *Criminology*, 55(3), 548-574 (Aug 2017).
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