

Sarah Kerrigan, Ph.D.

Professor of Criminal Justice (Forensic Science)
Director, Forensic Science Program
College of Criminal Justice
Sam Houston State University

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Degrees Earned

PH.D. in Chemistry, University of British Columbia, Vancouver, Canada, 1997

B.Sc. Hons. Chemistry with Analytical Chemistry and Toxicology. The University of Hull, England, 1992

Professional Licensure and Certifications

N/A

Peer-Review Publications

Articles

Delisa Downey and Sarah Kerrigan. Quantitative Analysis of Carisoprodol and Meprobamate in Whole Blood Using Benzylcarbamate and Deuterated Meprobamate as Internal Standards. *Journal of Analytical Toxicology*, 33(5), 278-282 (2009).

Phillip Stout, Kelsie Simons and Sarah Kerrigan. Quantitative Analysis of Gamma-Hydroxybutyrate (GHB) at Endogenous Concentrations in Hair using Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS). *Journal of Forensic Sciences* (In Press 2009).

Jessica Ayala, Kelsie Simons and Sarah Kerrigan. Quantitative Determination of Caffeine and Alcohol in Energy Drinks and the Potential to Produce Positive Transdermal Alcohol Concentrations in Human Subjects. *Journal of Analytical Toxicology* 33 (1), 27-33 (2009).

Laurel Farrell, Sarah Kerrigan and Barry Logan. Recommendations for Toxicological Investigation of Drug Impaired Driving, *Journal of Forensic Sciences* 52(5), 1-5 (2007).

Cameron Crandall, Sarah Kerrigan, Roberto L. Agüero Blau, Jonathan LaValley, Ross Zumwalt and Pat McKinney. The Influence of Site of Collection on Postmortem Morphine Concentrations in Heroin Overdose Victims, *Journal of Forensic Sciences* 51(2), 413-420 (2006).

Cameron Crandall, Sarah Kerrigan, Roberto L. Agüero Blau, Jonathan LaValley and Pat McKinney. The Influence of Site of Collection and Collection Methods on Postmortem Morphine Concentrations in a Porcine Model, *Journal of Analytical Toxicology*, 30(9), 651-658 (2006).

Sarah Kerrigan and Tania Lindsey. Fatal Caffeine Overdose: Two Case Reports, *Forensic Science International*: 153(1), 67-69 (2005).

Gerasimos Razatos, Ruth Luthi and Sarah Kerrigan. Evaluation of a Portable Evidential Breath Alcohol Analyzer, *Forensic Science International*: 153(1), 17-21 (2005).

Susan Mazarr-Proo and Sarah Kerrigan. Distribution of GHB in Tissues and Fluids Following a Fatal Overdose, *Journal of Analytical Toxicology*: 29(5), 985-400 (2005).

Donna Honey, Curtis Caylor, Ruth Luthi and Sarah Kerrigan. Comparative Alcohol Concentrations in Blood and Vitreous Fluid With Illustrative Case Studies, *Journal of Analytical Toxicology*: 29(5), 365-369 (2005).

Sarah Kerrigan, Donna Honey and Ginger Baker. Postmortem Morphine Concentrations Following Use of a Continuous Infusion Pump, *Journal of Analytical Toxicology*: 28(6), 529-532 (2004).

Tania Lindsey, Joseph O'Hara, Rebecca Irvine and Sarah Kerrigan. Strychnine Overdose Following Ingestion of Gopher Bait, *Journal of Analytical Toxicology*: 28(2), 135-137 (2004).

J Yazzie, SC Kelly, RE Zumwalt and S Kerrigan. Fatal Bupivacaine Intoxication Following Unusual Erotic Practices, *Journal of Forensic Sciences*: 49(2), 1-3 (2004).

Sarah Kerrigan. In Vitro Production of Gamma-Hydroxybutyrate in Antemortem Urine Samples, *Journal of Analytical Toxicology*: 26 (8), 571-574 (2002).

Sarah Kerrigan and William H. Phillips, Jr. Comparison of ELISAs for Opiates, Methamphetamine, Cocaine Metabolite, Benzodiazepines, Phencyclidine and Cannabinoids in Whole Blood and Urine, *Clin Chem*: 47, 540-547 (2001).

Sarah Kerrigan and Donald E. Brooks. Immunochemical Extraction and Detection of LSD in Whole Blood, *Journal of Immunological Methods*: 224, 11-18 (1999).

Sarah Kerrigan and Donald E. Brooks. Optimization and Immunological Characterization of a Photochemically Coupled Lysergic Acid Diethylamide (LSD) Immunogen, *Bioconjugate Chemistry*: 9, 596-603 (1998).

Sarah Kerrigan and Donald E. Brooks. Indirect Enzyme-Linked Immunosorbent Assay for the Quantitative Estimation of Lysergic Acid Diethylamide in Urine. *Clinical Chemistry*: 44, (5) 985-990 (1998).

Books

Sarah Kerrigan and Michelle Spirk, Eds., *Interpretive Toxicology & Drug Impaired Driving: A Case Oriented Approach*, [Humana Press, anticipated 2010].

Chapters

Sarah Kerrigan. Sampling, Storage and Stability in Clarke's *Analysis of Drugs and Poisons*, 4th Ed. Pharmaceutical Press, London, UK. Eds. A.C. Moffat, M.D. Osselton and B. Widdop (in press).

Sarah Kerrigan and Bruce A. Goldberger. Opioids in Principles of Forensic Toxicology, 3rd Ed., AACC Press, Washington, D.C., Ed. B. Levine (2010).

Sarah Kerrigan and Bruce A. Goldberger. Specimens of Maternal Origin in Drug Testing in Alternate Biological Specimens, Humana Press, Totowa, NJ. Ed. A.J. Jenkins (2008).

Sarah Kerrigan. Drug Impaired Driving Fundamentals in Medical-Legal Aspects of Abused Substances: Old and New – Licit and Illicit. Lawyers and Judges Publishing Company Inc. Tucson, AZ. Eds. M. Burns and T.E. Page (2005).

Sarah Kerrigan and Bruce A. Goldberger. Substance Misuse – Body Fluid Analysis in Encyclopedia of Forensic and Legal Medicine. Elsevier and Academic Press, Burlington, MA. Eds. J Payne-James, R. Byard, T. Corey and C. Henderson. Elsevier Science (2005).

Sarah Kerrigan and Bruce A. Goldberger. Forensic Toxicology in Forensic Nursing. Elsevier Mosby, St. Louis, MO. Ed. V. Lynch, (2005).

Sarah Kerrigan and Bruce A. Goldberger. Opioids in Principles of Forensic Toxicology, 2nd Ed., AACC Press, Washington, D.C., Ed. B. Levine (2003).

Daniel J. Cobaugh and Sarah Kerrigan. Gamma-Hydroxybutyrate in Contemporary Practice in Clinical Toxicology, AACC Press, Washington DC, Ed. L. Shaw (2001).

Sarah Kerrigan and Bruce A. Goldberger. Drugs of Abuse: Body Fluids in Encyclopedia of Forensic Science, Academic Press, London, UK, Ed. J. Siegel (2000).

Sarah Kerrigan and Bruce A. Goldberger. Opioids in Principles of Forensic Toxicology, AACC Press, Washington, D.C., Ed. B. Levine (2000).

Proceedings

Sarah Kerrigan.

Designer Amphetamines: Drug Use, Forensics and Law Enforcement – Detection of Psychedelic Amphetamines in Biological Samples. NIJ Conference 2009, Arlington, VA, June 2009.

Preston J. Wong, Sarah Kerrigan, Jon J. Smith, Ellen Moffatt, Ann Marie Gordon and Nikolas P. Lemos. Muscle: An Alternative Post-Mortem Specimen for Drug Screening by Enzyme Linked Immunosorbent Assay, Society of Forensic Toxicologists Annual Meeting, Phoenix, AZ, October 2008.

Ayodele Collins, Joseph Monforte, Ying Cheng, Ronald Backer and Sarah Kerrigan. A Stability Study on Ritalinic Acid in Urine, American Academy of Forensic Sciences Annual Meeting, Washington DC, February 2008.

Sarah Kerrigan. Overview of Drug-Facilitated Sexual Assault, Society of Forensic Toxicologists Annual Meeting, Raleigh/Durham, NC, October 2007.

Sarah Kerrigan. Immunoassay Validation – A Practical Approach to DUID Testing, Society of Forensic Toxicologists Annual Meeting, Raleigh/Durham, NC, October 2007.

Laurel Farrell, Sarah Kerrigan and Barry Logan. Recommendations for Toxicological Investigation of Drug Impaired Driving. T2007: International Council on Alcohol, Drugs, and Traffic Safety, The International Association of Forensic Toxicologists, and the 8th Ignition Interlock Symposium (IIS), Seattle, WA, August 2007.

Rachael Malfer, Anna Leggett, Sharla McCloskey and Sarah Kerrigan. Cocaine Impaired Driving: Evaluation of Toxicology, Driving Behavior and Impairment Symptoms in Arrested Drivers. American Academy of Forensic Sciences Annual Meeting, San Antonio, TX, February 2007.

Anna Leggett, Sharla McCloskey, Rachael Malfer and Sarah Kerrigan. Driving Behavior and Impairment Symptoms in Cannabinoid Positive Subjects Arrested for Driving Under the Influence of Drugs (DUID). American Academy of Forensic Sciences Annual Meeting, San Antonio, TX, February 2007.

Sharla McCloskey, Anna Leggett, Rachael Malfer, and Sarah Kerrigan. Driving Under the Influence of Methamphetamine: Comparison of Driving Behavior and Impairment Symptoms in Subjects Arrested for Driving While Intoxicated (DWI). American Academy of Forensic Sciences Annual Meeting, San Antonio, TX, February 2007.

Sarah Kerrigan. Standardized Field Sobriety Tests and Drug Impaired Driving, Society of Forensic Toxicologists Annual Meeting, Austin, TX, October 2006.

Sarah Kerrigan. Challenges in Drug-Facilitated Sexual Assault: The Toxicologists's Perspective, Society of Forensic Toxicologists Annual Meeting, Austin, TX, October 2006.

Sarah Kerrigan. The Role of The Toxicologist in Drug Impaired Driving, Lifesavers Conference, National Conference on Highway Safety Priorities, Austin, TX, April 2006.

Sarah Kerrigan. Driving Under the Influence of Drugs – Interpretive Strategies: Case Study Illustrations, Southwestern Association of Toxicologists, Houston, TX, March 2006.

Sarah Kerrigan. Multiple Drug Intoxication in Impaired Drivers: Polypharmacy Challenges. American Academy of Forensic Sciences Annual Meeting, Seattle, WA, February 2006.

Susan Mazarr-Proo and Sarah Kerrigan. Fatal GHB Intoxication following Recreational Use, FBI Symposium/Society of Forensic Toxicologists/International Association of Forensic Toxicologists Annual Meeting, Washington DC, September 2004.

Ginger Baker, Janice Yazzie and Sarah Kerrigan. Unusual Tramadol Concentrations in an Accidental Death Involving Poly Drug Use, FBI Symposium/Society of Forensic Toxicologists/International Association of Forensic Toxicologists Annual Meeting, Washington DC, September 2004.

Sarah Kerrigan and Tania Lindsey. Caffeine Intoxication: More Than Just Cream and Sugar, FBI Symposium/Society of Forensic Toxicologists/International Association of Forensic Toxicologists Annual Meeting, Washington DC, September 2004.

Janice Yazzie, Ruth Luthi and Sarah Kerrigan. Effect of Sodium Chloride on Headspace Blood Alcohol Analysis by GC-FID, FBI Symposium/Society of Forensic Toxicologists/International Association of Forensic Toxicologists Annual Meeting, Washington DC, September 2004.

Gerasimos Razatos, Ruth Luthi and Sarah Kerrigan. Evaluation of a Portable Evidential Breath Alcohol Analyzer, FBI Symposium/Society of Forensic Toxicologists/International Association of Forensic Toxicologists Annual Meeting, Washington DC, September 2004.

Sarah Kerrigan. Strychnine Overdose: A Case Report, California Association of Toxicologists Meeting, Oakland, CA, March 2004.

Gerasimos Razatos, Curtis Caylor, Ruth Luthi and Sarah Kerrigan. Validation of Volatile Analysis Using Dual Column GC, American Academy of Forensic Sciences Annual Meeting, Dallas, TX, February 2004.

Sarah Kerrigan. Bupivacaine Overdose Following Genital Injection. California Association of Toxicologists Meeting, Culver City, CA, November 2003.

Janice Yazzie, Susan Mazarr-Proo and Sarah Kerrigan. Analysis of Keto Opiates Using Solid Phase Extraction and Gas Chromatography Mass Spectrometry, Society of Forensic Toxicologists Annual Meeting, Portland, OR, October 2003.

Donna Honey, Susan Mazarr-Proo and Sarah Kerrigan. Distribution of Cocaine and Benzoyllecgonine in Postmortem Casework, Society of Forensic Toxicologists Annual Meeting, Portland, OR, October 2003.

Ginger Baker, Nancy Drez, Patricia McFeeley, Sean Kelly and Sarah Kerrigan. Unusual Distribution of Methamphetamine in a Fatality, Society of Forensic Toxicologists Annual Meeting, Portland, OR, October 2003.

Sarah Kerrigan and Ginger Baker. Gabapentin, A Novel Adjunctive Agent: Case Review of Twenty Postmortem Toxicology Investigations Involving Gabapentin. American Academy of Forensic Sciences Annual Meeting, Chicago, IL, February 2003.

Steven Martinez, Philip Enriquez and Sarah Kerrigan. Drug-Impaired Driving in New Mexico: A Six-Year Retrospective Study, Society of Forensic Toxicologists Annual Meeting, Dearborn, MI, October 2002.

Donna Honey, Ginger Salazar, Susan Mazarr-Proo and Sarah Kerrigan. Validation of Automated Microplate Immunoassays for Eight Drugs-of-Abuse using Postmortem and Antemortem Fluids and Tissues, Society of Forensic Toxicologists Annual Meeting, Dearborn, MI, October 2002.

Sarah Kerrigan. Understanding Drug-facilitated Rape, Preventing Sexual Violence: A Cross-Sectional View of Prevention, August 2002, Albuquerque, NM.

Sarah Kerrigan. Drug-Impaired Driving, Law Enforcement Collaborative Symposium, Angel Fire, NM, July 29-30.

Sarah Kerrigan. Drug-Facilitated Rape, Prosecuting Sexual Crimes II, State Bar of New Mexico, Albuquerque, June 27-28, 2002.

Sarah Kerrigan. Effects of Alcohol and Drugs on Driving: Recognition of the Drug-Impaired Driver, Municipal Judges' Conference, Ruidoso, NM, June 12, 2002.

K. Gomez, D. Lovato, J. Robb and S. Kerrigan. Evaluation of Four Breath Alcohol Analyzers. International Association of Chemical Testing Annual Meeting, TX (2002).

Sarah Kerrigan, Gary W. Davis, and Kenji Ota. Simultaneous Determination of Opiates, Cocaine and Benzoyllecgonine in Whole Blood and Urine Samples Using Polymeric Solid Phase Extraction and Gas Chromatography/Mass Spectrometry. Society of Forensic Toxicologists, Annual Meeting, New Orleans, (2001).

Sarah Kerrigan. Drug-Facilitated Sexual Assault, Law Enforcement Response to Sexual and Domestic Violence, Albuquerque, September 20-21 (2001).

Sarah Kerrigan. Gamma-hydroxybutyrate: Toxicology, Interpretation and Postmortem Challenges, 28th Medicolegal Investigation of Death Forensic Science Seminar, Albuquerque, September 4-7 (2001).

Sarah Kerrigan and W. H. Phillips, Jr. Determination of Gamma-Hydroxybutyrate in Blood and Urine Using Chemical Ionization Gas Chromatography/Mass Spectrometry, American Academy of Forensic Sciences, Annual Meeting (2001), Seattle, WA.

Sarah Kerrigan. Immunoassay Cutoffs: Consensus or Variable, California Association of Toxicologists Quarterly Meeting, South San Francisco, February (2001).

Sarah Kerrigan. Overview of GHB, Congress of Criminalists on GHB, California Criminalistics Institute, California Department of Justice, Division of Law Enforcement HQ, Sacramento, CA (2000).

Sarah Kerrigan. Analysis of GHB, Related Analogs and Precursors, Congress of Criminalists on GHB, California Criminalistics Institute, California Department of Justice, Division of Law Enforcement HQ, Sacramento, CA (2000).

Sarah Kerrigan and William H. Phillips, Jr. Side by Side Comparison of Microplate Enzyme Immunoassays for Opiates, Methamphetamine, Benzodiazepines, Benzoyllecgonine (BE), Phencyclidine (PCP) and Marijuana in Blood and Urine, Society of Forensic Toxicologists, Annual Meeting, Milwaukee, WI (2000).

Sarah Kerrigan, Joshua S. Spatola, Timothy A. Appel and William H. Phillips, Jr. Validation of Fully Automated Microplate Enzyme Immunoassays for Opiates, Methamphetamine,

Benzodiazepines, Benzoylcegonine (BE), Phencyclidine (PCP) and Marijuana in Blood and Urine, Society of Forensic Toxicologists, Annual Meeting, Milwaukee, WI (2000).

Sarah Kerrigan and D. E. Brooks. Rapid Immunoaffinity Extraction of Lysergic Acid Diethylamide (LSD) from Blood and Urine, Society of Forensic Toxicologists, Annual Meeting, Puerto Rico, USA (1999).

Artistic Performances

N/A

Artistic Exhibitions

N/A

Research Monographs and Technical Reports

Sarah Kerrigan. Drug Toxicology for Prosecutors, American Prosecutors Research Institute, Alexandria, VA, October 2004.

Funded External Grants

Designer Amphetamines in Forensic Toxicology Casework: Analysis and Prevalence. Funded by the National Institute of Justice, 2008/9 – 2009/10. Grant #:2008-DN-BX-K126. \$226,550. Principal Investigator: Sarah Kerrigan, Ph.D. (Sam Houston State University).

Work or Professional Experiences

Director, Forensic Science Program (2006-present)
College of Criminal Justice, Sam Houston State University, Huntsville, TX.

Professor (2009-present)
College of Criminal Justice, Sam Houston State University, Huntsville, TX.

Associate Professor (2006-2009)
College of Criminal Justice, Sam Houston State University, Huntsville, TX.

Bureau Chief, Toxicology (2001-2004).
New Mexico Department of Health, Scientific Laboratory Division, Albuquerque, NM.

Forensic Scientist – Toxicologist III/ Quality Manager (1998–2001).
California Department of Justice, Bureau Of Forensic Services, Toxicology Laboratory, Sacramento, CA.

Honors and awards

Outstanding DRE Program Innovation. Awarded by the International Association Of Chiefs Of Police (IACP)/Candid, Baltimore, MD (2003).

Irving Sunshine Toxicology Award. Awarded by the American Academy For Forensic Sciences in recognition of achievements (2002).

New Mexico Highway And Transportation Department, Traffic Safety Bureau Award. Awarded by the Traffic Safety Bureau for dedication, commitment and perseverance, Annual Traffic Safety Summit (2002).

Other Competencies

Committees/Boards/Commissions

Forensic Science Programs Accreditation Commission
Commissioner, 2009-present.

Journal of Forensic Sciences
Editorial Advisory Board, 2009-present.

Forensic Toxicology Council.
Appointee, 2010.

Texas Forensic Science Commission
Appointed to the Commission by the Texas Attorney General, 2007.

Society of Forensic Toxicologists
Executive Board, Secretary, 2008.

Society of Forensic Toxicologists
Board of Directors, 2006-2007.

Houston Police Department, Crime Laboratory
Stakeholder Committee, 2007-present.

California Association of Toxicologists
Past President, 2005-2006.

California Association of Toxicologists
Chair, Bylaws, Records Review and Revision, 2005-present.

American Academy of Forensic Sciences
Steering Committee (Toxicology Section), 2005-present.

Society of Forensic Toxicologists/American Academy of Forensic Sciences
Chair, Drugs and Driving Committee, 2005-2008.

National Safety Council
Highway Traffic Safety Division, Committee on Alcohol and other Drugs (COAD), 2005-present.

American Academy of Forensic Sciences

Chair, Awards and Scholarship Committee (Toxicology Section), 2005-2006.

California Association of Toxicologists
President, 2004-2005.

Society of Forensic Toxicologists
Membership Committee, 2004-2005.

Society of Forensic Toxicologists/American Academy of Forensic Sciences
Drugs and Driving Committee, 2004-present.

California Association of Toxicologists
Vice President, 2003-2004.

American Academy of Forensic Sciences
Awards and Scholarship Committee (Toxicology Section), 2003-2004.

Journal of Analytical Toxicology
Editorial Advisory Board, 2003-present.

Society of Forensic Toxicologists
Chair, Education and Outreach Subcommittee, Drug-Facilitated Sexual Assault Committee, 2003-2005.

American Association for Clinical Chemistry
Chair, Clinical and Forensic Toxicology News, Editorial Advisory Board, American Academy for
Clinical Chemistry, Washington, DC, 2001-2005.

American Association for Clinical Chemistry
Editorial Advisory Board, Clinical and Forensic Toxicology News, American Academy for Clinical
Chemistry, Washington, DC, 1999-2000.

Society of Forensic Toxicologists
Continuing Education Committee, 1999-2002.

Society of Forensic Toxicologists
Drug-Facilitated Sexual Assault Committee, 2000-present.

California Association of Toxicologists
Member at Large – North, 2000-2001.

California Association of Toxicologists
Board of Directors, 2000-2001; 2003-2006.