

Curriculum Vitae

Jay M Gehlhausen, Ph.D., DABFT- FD

Email: jaygehlhausen@gmail.com

919-610-2736

PROFESSIONAL SUMMARY

Forensic toxicologist with more than 25 years of experience in the fields of alcohol toxicology, forensic drug testing, and clinical toxicology. Certified by the American Board of Forensic Toxicology (ABFT) and the University of Florida. Qualified as an expert in forensic toxicology by state, federal, and military courts. Expert for prosecution/defense in over 100 drug and DUI cases. Expertise in lab management, method validation, state and federal laboratory compliance, and lab instrumentation.

CERTIFICATIONS

- American Board of Forensic Toxicology (ABFT). Diplomate, Forensic Drug Toxicology, Colorado Springs, CO (January 2010).

PROFESSIONAL EMPLOYMENT

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| 10/2020 to Present | Technical Supervisor (Forensic) , First Choice Healthcare. Review forensic testing data for individuals in court-ordered drug treatment programs. Perform daily LCMS operations, proficiency testing, maintain laboratory documentation, and complete projects and assignments as directed by management. |
| 11/2017 to Present | Owner , JG Tox, LLC , (Part-time), Consulting services in toxicology and forensic drug testing based in North Carolina. Expertise in expert witness testimony (toxicology), lab inspections, and lab operations. Services include court testimony, review of toxicology testing results for attorneys, NLCP laboratory inspections, lab compliance, and part-time lab directorships. |

PAST EXPERIENCE

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| 11/2019 to 09/2020 | Research Scientist , Avazyme Inc., Durham, NC. Develop mass spectrometry methods under GLP and EPA guidelines. Study Director and Principle Investigator for method development encompassing expanded cannabinoid, terpenoids, and Schedule II drugs utilizing GC-MS and LC-MSMS. |
| 11/2018 – 10/2018 | Chief Toxicologist , Andor Labs, Morrisville, NC. Provided toxicology support including mass spectrometry data review, patient results reporting, LC-MSMS method development -including part-time forensic workplace testing of employees, and provider technical support. |

- 2/2015 - 5/2017 **Lab Director**, AvuTox Laboratories, LLC, Rocky Mount and Garner, NC. Provide oversight for a COLA accredited clinical testing laboratory specializing in pain management testing. This includes oversight of all technical areas including training, standard operating procedures, new method implementation, R&D, review of testing data, and quality control.
- 2006 – 2015 **Lab Director II**, Laboratory Corporation of America, Research Triangle Park, NC. Provided oversight for a NLCP, CAP and CLIA regulated forensic and clinical testing laboratory, specializing in urine and alternate matrices (hair and oral fluids).
- 2002 – 2006 **Research Development Chemist**, Quest Diagnostics, Atlanta, GA. Research and development in specialized methods for GC/MS and GC/MS/MS. Validation of new and on-going GC/MS methods under HHS urine regulations and CLIA.
- 1990 – 1995 **Analytical Research Chemist**. Mallinckrodt Chemical, St. Louis, MO. Developed and implemented complex analytical methods for using atomic spectrometry (ICP, AA, XRF) for a large chemical processing plant.

MILITARY SERVICE

- 1998 – 2002 **Military Officer/Executive Officer**. NDSL, United States Navy, Jacksonville, FL. Managed 45 civilian and military personnel in forensic urine testing. Maintained assignments as Technical Director, Quality Assurance Officer, Safety Officer and R&D Chemist. Certified forensic drug testing results for Naval commands.
- 1995 – 1998 **Military Officer/Technical Director**. NDSL, United States Navy, San Diego, CA. Provided technical oversight of drug testing processes including accessioning, confirmations, and data certification. Expert witness in forensic drug testing. Developed and maintained Standard Operating Procedures.

EDUCATION

Northern Illinois University, Dekalb, IL - Ph.D., Analytical Chemistry (1990)

University of Florida, Gainesville, FL - Certificate in Forensic Toxicology (2003)

Rockford University, Rockford, IL - B.A., Chemistry (1985)

PROFESSIONAL MEMBERSHIPS

- American Chemical Society
- Sigma Xi, The Honorary Scientific Research Society
- Society of Forensic Toxicologists

PUBLICATIONS AND PRESENTATIONS

Forensic Terminology Training Video Organization of Scientific Area Committees for Forensic Science (OSAC) created a Lexicon of Forensic Science Terminology to help facilitate communication across many disciplines. By Dr. Jay Gehlhausen and Logan Johnson.

Occupational Cocaine Exposure of Crime Laboratory Personnel Preparing Training Aids for a Military Working Dog Program. J. M. Gehlhausen, K. L. Klette and P. R. Stout, and J. Given. Journal of Analytical Toxicology, Special Edition (October 2003).

Comparison of EMIT®II, CEDIA®, and DPC® RIA Assays for the Detection of Lysergic Acid Diethylamide in Forensic Urine Samples, **R. F. Wiegand, K. L. Klette, P. R. Stout, and J. M. Gehlhausen**, Journal of Analytical Toxicology, Special Edition, (October 2002).

Evaluation of a Solid-Phase Extraction Method for BZE Urine Analysis in a High-Throughput Forensic Urine Drug-Testing Laboratory, P. R. Stout, J. M. Gehlhausen, C. K. Horn, and K. L. Klette, Journal of Analytical Toxicology, Special Edition (October 2002).

Urine Analysis of Laboratory Personnel Preparing Cocaine Training Aids for a Military Working Dog Program. J. M. Gehlhausen, K. L. Klette, J. Given, Journal of Analytical Toxicology, Special Edition (October 2001).

Current Trends in the Testing of Designer Drugs, J.M. Gehlhausen, Annual Armed Forces Tri-Service Meeting, Naval Air Station, Jacksonville, FL (April 1999).

Simultaneous Determination of Elemental Ratios in Coal by Direct Powder Injection into a Helium Microwave Induced Plasma, J M. Gehlhausen and J. W. Carnahan, Anal. Chem. 1991, 63, 2430-2434 (March 1992).

Determination of Aqueous Fluoride with a Helium Microwave-Induced Plasma with Flow Injection Analysis, J. M. Gehlhausen and J. W. Carnahan, Analytical Chemistry (April 1989).

CONTINUING EDUCATION

- Analysis and Interpretation of Postmortem Alcohols, SOFT Annual Meeting, Cleveland, OH, September 2022.
- There's Something About Fentanyl, SOFT Annual Meeting, Cleveland, OH, September 2022.
- Introduction to Drug Causes and Related Death Investigation, Center for Forensic Science Research and Education, March 2022 (Virtual).
- Borkenstein Alcohol Course, Indiana University Center for Studies of Law in Action, May 2021 (Virtual).
- The Time to Decline Wine... Guidelines for Performing Alcohol Calculations in Forensic Toxicology, SOFT Annual Meeting, Nashville, TN, September 2021.
- Cannabis Impaired Driving: Where Are We in 2020? SOFT Annual Meeting, September 2020.
- Measurement Traceability and Measurement Uncertainty in Forensic Toxicology: An Overview, SOFT Annual Meeting, Boca Raton, FL, January 2017.
- Forensic Epidemiology: Integrating Forensic Medicine and Public Health, SOFT Annual Meeting, Boca Raton, FL, January 2017.
- Agilent 6400 Series QQQ LC/MS Techniques and Operation, Agilent Technologies, Wood Dale, IL, September 2015.
- A Pharmacogenomics Primer with Applications to Forensic Toxicology, Society of Forensic Toxicologists (SOFT) Annual Meeting, Grand Rapids, MI, October 2014.
- LAP Inspection Team Member Training, the College of American Pathologists, Distance learning, August 2014.
- Lab Director CME Program, COLA Lab University, Distance learning, April to June 2015.