

## *Curriculum Vitae*

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

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### **PROFESSIONAL SUMMARY**

Forensic toxicologist and chemist with more than 25 years of experience in the fields of toxicology, chemical sciences, and expert court testimony. Expertise in data review, chromatography, method validation, forensic laboratory compliance, and lab instrumentation.

### **CERTIFICATIONS**

- **American Board of Forensic Toxicology (ABFT)**, Diplomate, Forensic Drug Toxicology, Colorado Springs, CO (January 2010).
- **University of Florida**, Certificate in Forensic Toxicology, Gainesville FL (2003).

### **PROFESSIONAL EMPLOYMENT**

- 4/2023 to Present      **Forensic Toxicologist**, Godoy Medical Forensics, Inc. Expert witness in clinical and forensic toxicology. Qualified expert in state, federal and military courts. Prepare toxicology reports and advise attorneys on toxicology testing results. Perform alcohol and retrograde calculations. Interpretation of postmortem drug levels and overdose fatalities.
- 9/2010 to Present      **Laboratory Inspector/Auditor**, National Laboratory Certification Program, Research Triangle Park NC. The NLCP program inspects regulated drug testing laboratories, challenges the labs with proficiency testing samples, identifies problem areas, and monitors corrective actions.
- 11/2017 to Present      **Lab Director**, JG Tox, LLC, (Part-time). Oversee laboratory operations focused on individuals in court-ordered drug and alcohol treatment programs. Services include court testimony, review of toxicology testing results for attorneys, lab compliance, and part-time lab directorships.

### **PAST EXPERIENCE**

- 8/2023 to 6/2024      **Adjunct Professor**, Meredith College, Raleigh, NC, Instructor in Chemistry.
- 10/2020 to 6/2023      **Technical Supervisor (Forensic)**, 1st Choice Healthcare Services, Hookerton NC. Review forensic testing data for individuals in court-ordered drug treatment programs. Perform daily LCMS operations and data review, proficiency testing, maintain laboratory documentation, and complete projects and assignments as directed by management.

- 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).

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

#### **VOLUNTEER ASSIGNMENTS**

- Served as Chair, Alternate Councilor, and SEED Coordinator for the North Carolina Section of the American Chemical Society.

#### **PROFESSIONAL MEMBERSHIPS**

- American Chemical Society (ACS)
- The International Association of Forensic Toxicologists (TIAFT)
- Sigma Xi, The Honorary Scientific Research Society
- Society of Forensic Toxicologists (SOFT)

#### **PUBLICATIONS AND PRESENTATIONS**

- An Introduction to Clinical Toxicology and Laboratory Accreditation, Part 1, Counter-Point Journal, Volume 9, Industrial Training & Design Ltd., Saskatoon, SK, Canada, By Jay M Gehlhausen (April, 2025).
- Overview of Toxicology Testing Methods – Headspace GC and Hospital Screening Methods, NCFCN Drug Analysis and Toxicology Training, NC Judicial Center, Raleigh NC, By Jay M Gehlhausen (January 2024).
- 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**

- Breath Alcohol Testing Program Operation and Management, SOFT Annual Meeting, St Louis, MO, October 2024.
- Psychedelics: Promising Treatment Applications and Concerns for Impaired Driving, SOFT Annual Meeting, St Louis, MO, October 2024.
- The Addicted Brain, Emory University, Atlanta, GA, On-line Training, August 2024.
- Pharmacology, Detection, and Control Actions of Synthetic Drugs, SOFT Annual Meeting, Denver, CO, October 2023.
- Cannabis Testimony, SOFT Annual Meeting, Denver, CO, October 2023.
- The Pharmacology, Management, and Interpretation of Drug Withdrawal, SOFT Annual Meeting, Denver, CO, October 2023.
- 2023 Current Trends in Forensic Toxicology Symposium, Center for Forensic Science Research and Education, May 8<sup>th</sup> to 12<sup>th</sup>, 2023 (Virtual).
- 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.