Curriculum Vitae

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

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EXECUTIVE PROFILE

- Board certified and published toxicologist with more than 20 years of experience in the fields of toxicology, forensic drug testing, and clinical toxicology. Expertise in lab management, method development, laboratory compliance, and technical support. Expert knowledge in forensic drug testing, expert witness testimony, and chromatographic methods.

INSTRUMENTATION EXPERIENCE

- Extensive hands-on experience and theoretical knowledge in LC-MSMS (Agilent, Sciex, Waters), Head Space-GC, GC-MS, ICP, ICP-MS, Ion Chromatography (IC), atomic spectrometry (Flame-AA, GF-AA), immunoassay, and ELISA.

EDUCATION

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

- Fundamental and theoretical research in atomic spectrometry and physical chemistry. Development of novel sampling techniques for difficult matrices.

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

- Study topics included forensic science, general toxicology, pharmacogenetics, blood and urine alcohol testing, DRE programs, principles of drug impairment, pharmacokinetics, drug metabolism, and crime scene investigations.

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

- Core chemistry and mathematics curriculum.

CERTIFICATIONS / EXPERIENCE

- American Board of Forensic Toxicology (ABFT). Diplomate, Forensic Drug Toxicology, Colorado Springs, CO (January 2010).
- Established expert witness for Military, Georgia and North Carolina Courts (June 1996 to Present). Extensive experience working with attorneys and courts on expert testimony in toxicology, chemistry, and forensic drug testing.

PROFESSIONAL BACKGROUND

6/2017 – Present **Lab Director**, Brier Creek Integrated Pain and Spine, LLC, Rocky Mount, NC. Direct COLA accredited clinical testing laboratory, specializing in the testing of scheduled prescription drugs and drugs of abuse in urine and oral fluid. This includes directing and managing all technical areas including training, standard operating procedures, new method implementation, review of data, and quality control.

11/2017 – Present **President of JG Tox, LLC,** Consulting services in toxicology and forensic drug testing based in North Carolina. Consulting toxicologist on certification of federally accredited forensic toxicology laboratories (NLCP). Services include: court testimony, review of toxicology testing results for Attorneys, lab compliance, and part-time lab directorships.

LEADERSHIP

1/2017 to Present **Chair-Elect of the North Carolina Section of American Chemical Society (ACS),** The Chair-Elect manages the section's program of meetings, assists the Chair with the management of the section, and represents the Chair in his absence. Serves on the Program Committee. Utilized a $10K budget to organize the 131st Annual Meeting of the North Carolina Section of ACS held at the NCSU McKimmon Education Center in November 2017.

EXPERIENCE

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. Provide technical support to clients and healthcare providers in toxicology and results interpretation.

2011 – 2/2015 **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). This included directing and managing all technical areas including training, standard operating procedures, new method implementation, review of data, and quality control. Provided technical and legal support to clients including expert witness testimony on lab procedures and drug pharmacokinetics. Reviewed litigation packages containing testing and chain-of custody documents.

2006 – 2011 **Scientist,** Laboratory Corporation of America, Research Triangle Park, NC. Implemented complex software and testing methods for low level testing of drugs in urine, hair, and oral fluids. Developed and reviewed standard operating procedures for new and existing procedures. Implemented and improved testing methods in GC/MS, LC/MS/MS, and ELISA immunoassay

testing. Managed department of six technologists and two certifying scientists.

2004 – 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. Cross-trained technical staff on new hair testing methods. Conducted oral fluid testing including processing, extraction, and interpretation.

2002 – 2004 **Positive Certify Scientist,** Quest Diagnostics, Atlanta, GA. Certified laboratory results for regulated (HHS, NRC) and non-regulated screening and confirmation results. Assisted in review and coordination of state and federal proficiency testing (PT) programs. Maintained in-depth knowledge of HHS regulations for workplace drug testing. Provided expert witness testimony.

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. Worked with JAG Corps and testified as an expert witness in forensic drug testing. Prepared litigation documents for legal proceedings.

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.

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.

PROFESSIONAL MEMBERSHIPS

- American Chemical Society
- Sigma Xi, The Honorary Scientific Research Society

Continuing Education

- 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.

- Naval Education and Training Center, Officer Indoctrination School, Newport, RI, August to September 1995.

PUBLICATIONS AND PRESENTATIONS

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).