

## Vanessa M. Beall, M.S.

### EDUCATION

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**University of Florida, Gainesville, FL** *August 2014*  
M.S. Drug Chemistry

**Eastern Kentucky University, Richmond, KY** *May 2006*  
B.S. Forensic Science  
• Overall GPA 3.66 (Cum Laude)

### EXPERIENCE

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**CBI Biological Sciences Section - Toxicology** *March 2015 - Present*  
Forensic Scientist/Laboratory Agent

**ChemaTox Laboratory, Inc.** *February 2015 - Present*  
Expert Witness  
• Providing testimony services on cases processed while working as a Forensic Toxicology Analyst / Toxicologist.

**ChemaTox Laboratory, Inc.** *August 2013 - February 2015*  
Supervisory Forensic Toxicology Analyst / Toxicologist and Forensic Chemist  
• Responsible for alcohol analysis in blood samples. Perform validation and calibration of the Headspace Gas Chromatography Flame Ionization Detector (GC/FID). Responsible for the analysis of blood and other body fluids for the presence of drugs and other toxic substances using Gas Chromatography Mass Spectrometry (GC/MS) and Ultra Performance Liquid Chromatography Tandem Mass Spectrometry (UPLC/MS/MS). Providing services, such as expert testimony, to governmental and private agencies regarding analysis performed. Supervise laboratory operations and train personnel.

**PremierTox** *October 2011 - August 2013*  
Confirmation Team Leader  
• Supervised seven toxicology analysts to ensure policy and procedure are followed. Participated in the training of all toxicology analysts. Assisted in the writing of new procedures. Ensured all results released within 72 hours of samples being received. Organized, compiled, and reviewed quality control data for approval by the medical director. Responsible for the analysis of extracted medical urine samples by UPLC/MS/MS. Performed daily, weekly, and monthly maintenance on several UPLC/MS/MS systems. Calibrated and troubleshoot instrumentation as needed. Reviewed calibration, quality control, and patient sample results on a daily basis as well as performed final peer review of patient results. Worked to improve existing UPLC/MS/MS methods as well as research new methods. Participated in the validation

of new methods and instrumentation.

**Kentucky State Police Central Forensic Laboratory***September 2008 - September 2011*

Forensic Scientist Specialist I

- Performed human performance toxicological analysis to aid the Kentucky State Police and the Commonwealth of Kentucky in impaired driving, sexual assault, and homicide investigations. Analysis included the use of a variety of analytical methods and instrumentation to include: GC/FID, GC/MS, Liquid/Liquid extraction, and ELISA. Provided an explanation of results and section protocol to attorneys, defendants, and police officers. Testified in court as an expert witness regarding examination results. Validated new screening methods for the DSX™ Four-Plate Automated ELISA Processing System. Wrote analytical and quality control procedures for the implementation of Neogen urine ELISA and the automated DSX. Monitored quality control and maintenance of the DSX automated system.

**Kentucky Medical Examiner's Office***January 2007 - September 2008*

Forensic Chemist II

- Performed post-mortem toxicological analysis to aid the Coroners and Medical Examiners of the Commonwealth of Kentucky in death investigations. Analysis included the use of a variety of analytical methods and instrumentation such as: GC/FID, Gas Chromatography Nitrogen Phosphorous Detector (GC/NPD), High Performance Liquid Chromatography (HP/LC), GC/MS, ELISA, Solid Phase extractions, and Liquid/Liquid extractions. Prepared reports of analyses for Coroners and Medical Examiners.

**Neogen Corporation***August - December 2006*

Diagnostic Technical Services Representative

- Responsible for technical support for Neogen's ELISA product line, specifically the forensic product line. Handled customer complaints regarding product quality, tolerances, and specifications. Investigated customer data and tested retention samples to fully troubleshoot customer issues. Provided technical support for customers using Neogen's automated instrumentation.

**National Forensic Science Technology Center***June 2006*

Research Assistant

- Participated in the validation of commercially available field test kits for drugs of abuse for the inclusion in the National Forensic Science Technology Center's (NFSTC) Field Investigation Drug Officer Program (FIDO).

**Miami Valley Regional Crime Laboratory***January - April 2006*

Forensic Science Intern

- Rotated throughout the lab and completed research projects in the following areas: fingerprinting, toxicology, firearms, chemistry, and trace evidence.

**PRESENTATIONS****DUID and Toxicology***September 2014*

Colorado Impaired Driving Conference

**Comprehensive DUI/D: Toxicology***May 2014*

Colorado District Attorneys' Council

## **PUBLICATIONS**

### **Analysis of $\Delta$ 9-tetrahydrocannabinol Driving Under the Influence of Drugs Cases in Colorado from January 2011 to February 2014** 2014

Sarah Urfer; Jaime Morton; Vanessa Beall; Jeanna Feldmann; Justin Gunesch *Journal of Analytical Toxicology* 38.8: 575-581 doi:10.1093/jat/bku089

### **Conclusion of Validation Study of Commercially Available Field Test Kits for Common Drugs of Abuse (poster)** 2008

American Academy of Forensic Sciences

Kirk M. Grates, BA; Joan G. Ring, MS; Kathleen A. Savage, PhD; Timothy A. Denicola, BS; Vanessa M. Beall, BS; Jenna L. Dovyak, BS; Emily M. Schlomer, BS

## **CONTINUING EDUCATION**

### **Annual Society of Forensic Toxicologists meeting** October 20<sup>th</sup>-24<sup>th</sup> 2014

Grand Rapids, MI

Workshops

- Laboratory Accreditation: A Look at Accrediting Bodies and the Top 10 Assessment Findings
- Research Collaborations: Getting the Most Out of the Academic-Practitioner Relationship and Playing Well in the Sandbox
- The Drug Recognition Expert (DRE) Program with Demonstration DRE Evaluation and Mock Court

### **Presenting Courtroom Testimony Regarding Drug and Alcohol Lab Test Results** March 4<sup>th</sup> 2014

Taught by Chris Halsor, TSRP, Colorado District Attorneys' Council

### **ASCLD/LAB-International Measurement Confidence Level 100 For the Forensic Laboratory** February 25<sup>th</sup>-27<sup>th</sup> 2014

- Online Course
- Through the American Society of Crime Laboratory Directors Laboratory Accreditation Board
- Topics: 100A (Measurement Traceability); 100B (Measurement Assurance); 100C (Measurement Uncertainty)

### **The Robert F. Borkenstein Course on the Effects of Drugs on Human Performance and Behavior** November 3<sup>rd</sup>-8<sup>th</sup> 2013

Sacramento, CA

Through the Indiana University Robert F. Borkenstein Center for Studies of Law in Action and The Center for Forensic Science Research & Education

**Topics:** Approaches to Investigation Drug Impaired Driving; Oral Fluid Analysis: Prevalence of Drugs in Drivers CA 2010 and 2012 Surveys; Statement of the Problem: The Canadian Roadside Survey and Drug Involvement in Fatal Traffic Crashes; The FARS data system potential and limitations; SFSTs: History, Performance and Validation; The DRE Program; Successful administration and governance of a DRE program in 2013: Best practices, resources and outcomes; Strengths and limitation

of Per se approaches to DUID enforcement; The special case of the THC Per se law; Pharmacokinetics: Absorption, Distribution, Metabolism, Elimination; Principles of Pharmacology and Drug Effects - Stimulants, Hallucinogens, Dissociative Drugs, Benzodiazepines, CNS Depressants, Opiates, and Cannabinoids; Effects on Human Performance and Behavior - Cocaine, Amphetamines, MDMA, Carisoprodol, Butalbital, Opiates, Cannabis, Synthetic Cannabinoids, Hallucinogens, and Dissociative Drugs; Effects of Drugs on Driving - Benzodiazepines, Zolpidem, and Imidazopyridines; On Road Driving Studies - CNS Depressants - Antidepressants, and Anxiolytics, Cannabis, and MDMA; Calculation of time since last use of Marijuana: Utility and limitations; Case Studies of "Bath Salts" Compounds; DUID Information Resources; Los Angeles Oral Fluid Project; Forensically Defensible Drug and Alcohol Testing in DUID - Laboratory Aspects; A practical approach to preparing and testifying in drug impaired driving cases.

**Annual Society of Forensic Toxicologists meeting***October 18<sup>th</sup>-22<sup>nd</sup> 2010*

Richmond, VA

## Workshops

- Getting the Most from ELISA: Tips and Tricks for the Professional Toxicologist
- DFSA Applications and Interpretations
- Tips, Tricks, and Methods from Current Practitioners of LC/MS Toxicology

**AFFILIATIONS****American Academy of Forensic Sciences***Trainee Affiliate*

- Toxicology Section

**Society of Forensic Toxicologists***Member***AWARDS****Dean's List for Academic Excellence***Spring 2003 - Spring 2006***President's Award***Spring 2006***SPECIAL COURSES****Miscellaneous**

- Analytical Methods in Forensic Science I/II
- Forensic Microscopic Analysis
- Mass Spectrometry
- Analytical Toxicology
- Pharmaceutical Analysis II
- Forensic Toxicology I
- Medicinal Chemistry of Drugs of Abuse
- Principles of Forensic Science
- Toxic Substance
- Laboratory Quality Assurance/Control
- Natural Medicinal Products

- Synthetic Medicinal Chemistry