

## Jadyn M. Rickert, B.S.

### EDUCATION

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**Creighton University, Omaha, NE**

*May 2016*

B.S. Chemistry

- Minors: Biology, Spanish and Hispanic Studies

### EXPERIENCE

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**ChemaTox Laboratory, Inc.**

*December 2016 - November 2019*

Forensic Toxicologist

- Provide services to governmental and private agencies for analysis of bodily fluids and tissues for alcohol, drugs and other toxic substances. Responsible for quantitative analysis of forensic samples with Headspace Gas Chromatography (HSGC/FID) for the presence of alcohol and other volatiles. Perform quantitative analysis on blood and other bodily fluids for the presence of drugs and other chemical substances using Gas Chromatography/Mass Spectrometry (GC/MS) and Ultra Performance Liquid Chromatography/Tandem Mass Spectrometry (UPLC/MS/MS). Provide expert testimony on alcohol analysis, drug determination and the effects of drugs on human performance. Complete other laboratory tasks as assigned including training personnel.

**Creighton University, Biochemistry Laboratory**

*March 2015 - May 2016*

Head Student Researcher supervised by Dr. Eric Haas

- Project titled: Biological Indicators of Immune Response in *Anasa tristis* (Squash Bugs)
- Involved in researching the immune response of a prominent pest insect by observing hemocyte proliferation, nodule formation, and analysis of lipid composition of various tissues. Lipids of particular interest were eicosanoid precursors responsible for a successful immune response. Focused on extraction and analysis of complex lipid profiles using thin layer chromatography, Gas Chromatography coupled with Mass Spectrometry (GC/MS) and Flame Ionization Detectors (GC/FID).

### PRESENTATIONS

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**Toxicology and Marijuana 101**

*June 25<sup>th</sup> 2019*

Colorado Bar Association - Continuing Legal Education

- Toxicology 101 and Marijuana Toxicology 101 including an introduction to the Forensic Toxicology Laboratory describing the types of toxicology testing and the instrumentation; pharmacokinetics and pharmacodynamics of marijuana and alcohol; and case issues relating to both criminal DUI and DUID cases and civil cases. There was also a short aside on Clinical Urinalysis Testing.

**Widmark Equation vs BAC Extrapolation***September 25<sup>th</sup> 2018,  
September 24<sup>th</sup> 2018*

CDAC Course- Impaired Driving Hot Topics

**Webinar- Marijuana-Impaired Driving: A Report to Congress***August 23<sup>rd</sup> 2018*

Traffic Safety Resource Prosecutor Program

**Webinar- Widmark Equation vs BAC Extrapolation***July 31<sup>st</sup> 2018*

Traffic Safety Resource Prosecutor Program

**Toxicology 101***May 10<sup>th</sup> 2018,  
May 3<sup>rd</sup> 2018*

Arvada Police Department

- Presented a brief overview of forensic toxicology and ChemaTox services. Using ethyl alcohol and cannabinoids, I highlighted the basics of DUI/D sample collection, drug and alcohol testing, and results interpretation.

**Toxicology 101 - Assistant Presenter***October 13<sup>th</sup> 2017*

El Paso County DAs

- A training presentation on the basics of drug and alcohol testing, results interpretation and a brief overview of ChemaTox Services.

**CONTINUING EDUCATION****Drug Impaired Driving***September 26<sup>th</sup> 2018*

Fort Collins, CO

- Emerging Drug Trends, Drug Impaired Driving Investigations, Advanced Toxicological Testing Services, Trial Tactics

**The Robert F. Borkestein Course on the Effects of Drugs on Human Performance and Behavior***September 16<sup>th</sup>-21<sup>st</sup> 2018*

Science History Institute, Philadelphia PA

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

**Topics:** DUID and Overview of Approaches to Drug Impaired Driving Casework; Drug Recognition Expert (DRE) Program and Validation Studies; Principles of Pharmacology and Drug Effects - Stimulants, Hallucinogens, Cannabinoids, Opiates, Benzodiazepines, and CNS Depressants; Effects on Human Performance and Behavior - Cocaine, Methamphetamine, Hallucinogens, "Bath Salts", Cannabis, Synthetic Cannabinoids, Opiates, Carisoprodol, Butalbital, Topiramate; Effects on Cognitive Function and Actual Driving - MDMA, NPS and Other Stimulants; On-Road Driving Studies - Cannabis, CNS Depressants: Antidepressants and Anxiolytics; Benzodiazepines, Zolpidem, and other Imidazopyridines and Driving Impairment; Online Resources and Literature Searching for Drug-impaired Driving; National Trends in DUID Laws; National Safety Council Recommendations for Drug Testing in DUID Investigations; Legalizing Cannabis in Canada: Implications for Drugged Driving; Forensically Defensible Drug and Alcohol Testing in DUID - Laboratory Aspects; Presenting Drug

Impairment Evidence in Court - Prosecution Perspective, Defense Perspective, and Toxicologist Perspective.

**Interpreting Blood Cannabinoids: Markers of Recent Cannabis Use** *August 17<sup>th</sup> 2017*  
Webinar Presented by Dr. Marilyn A Huestis, Senior Scientific Advisor, NMS Labs

**The Robert F. Borckenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation** *May 14<sup>th</sup>-19<sup>th</sup> 2017*  
Bloomington, IN

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

**Topics:** Historical Perspective on Forensic Alcohol Analysis; Pharmacology and Physiology of Alcohol; Chemistry and Biochemistry of Alcohol; Forensic Pharmacokinetics of Ethanol; 0.08 The Film that Changed a Nation's Law; Blood Alcohol Analysis: Theory and Practice; Breath Alcohol Instrumentation: Theory and Practice; Behavioral and Performance Effects of Alcohol on Driving; Approaches to Widmark Calculations; Practice and Pitfalls of Retrograde Extrapolation; Predicting Impairment: The Role of BAC and Complexity of the Driving Task Impairment; Principles and Applications of Standardized Field Sobriety Tests; Distribution of Ethanol between Blood and other Biological Specimens from Living and Deceased Persons; Basic Principles of Mathematics and Statistics in Alcohol Toxicology; Uncertainty of Measurement Determination in Blood and Breath Alcohol Testing; The Changing Landscape: Standards in the Forensics Laboratory; The Legal Framework for DUI - Constitutional Issues and Case Law; Analysis and Response to Defense Challenges in Forensic Alcohol Testing; The Confrontation Clause and Scientific Testimony; Expert Testimony: Basic Principles; Discussion - Expert Testimony: Practical Considerations

**Monthly Toxicologist Meeting** *April 20<sup>th</sup> 2017*  
ChemaTox Laboratory

- Guest speaker Mark George, a SFST/DRE Instructor presented on the history, research, practice and training of officers in regards to Standardized Field Sobriety Tests and the DRE program.

**DRE Training Green Lab** *January 31<sup>st</sup> 2017*  
Pueblo, CO

- Had the opportunity to watch full DRE evaluations performed by Colorado State Troopers. These evaluations included multiple physical tests and Standardized Field Sobriety Tests (SFST) on individuals under the influence of marijuana.

## **AFFILIATIONS**

**Front Range Forensic Chemist Association (FRFCA)** *Since January 2018*

**Society of Forensic Toxicologists** *Associate Member Since February 2019*