

## **Curriculum Vitae**

### **Brianna Peterson**

Washington State Patrol  
2203 Airport Way South, Suite 360  
Seattle, WA 98134  
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## **EDUCATION**

Doctor of Philosophy, Toxicology  
The University of Georgia, May 2007

Master of Science, Forensic Science  
University of Illinois at Chicago, August 1999

Bachelor of Science, Chemistry  
University of Wisconsin-La Crosse, May 1997

## **BOARD CERTIFICATION**

Fellow of the American Board of Forensic Toxicology (F-ABFT)  
March 2012 – present

## **PROFESSIONAL EXPERIENCE**

Laboratory Manager, Toxicology Division, Washington State Patrol, Seattle WA  
August 2013 - Present

Forensic Scientist III, Washington State Patrol, Seattle WA  
May 2007 – August 2013

Crime Lab Scientist II, Georgia Bureau of Investigation, Savannah GA  
July 1999 - August 2001

## **CERTIFICATIONS**

Washington State Blood Alcohol Analyst Permit, June 2007 to June 2013

State of Georgia Department of Public Safety and Georgia Bureau of Investigation: Chemical Analysis of Blood/Urine Permit (#18037), November 1999 to October 2001

## **PROFESSIONAL AFFILIATIONS**

Member, Society of Forensic Toxicologists, (2008 – present)  
Member, Society of Toxicology (2004 - 2007)  
Member, American Association of Pharmaceutical Scientists (2003 - 2007)  
Member, American Academy of Forensic Sciences (1999 - present)  
Member, Golden Key National Honor Society (1996 - present)

## **COURSES AND TRAINING**

**The 22nd Annual IACP Training Conference on Drugs, Alcohol and Impaired Driving**  
Denver, CO, August 13-15, 2016

Workshops attended: Effective use cannabis research to prove your DUID  
case in the courtroom  
Heroin and other opiates and their role in DUI

**California Association of Toxicologists meeting**

Sacramento, CA, May 2-3, 2014

**American Academy of Forensic Sciences annual meeting**

Seattle, WA, February 20-21, 2014

**Northwest Association of Forensic Scientists annual meeting**

Missoula, MT, September 25-28, 2012

Workshop attended: Solid Phase Extraction for the Forensic Scientist

**The 18<sup>th</sup> Annual IACP Training Conference on Drugs, Alcohol and Impaired Driving**

Seattle, WA, August 17, 2012

Workshops attended: DRE Vital Signs: A Closer Look  
Bath Salts 101

**Discovery and Recovery of Human Remains**

Ravensdale, WA, August 13-16, 2012

**Crime Scene Analysis and Reconstruction**

Green Forensics, Inc., Shelton, WA, March 12-16, 2012

**American Academy of Forensic Sciences annual meeting**

Atlanta, GA, February 20-25, 2012

**Bloodstain Pattern Analysis II**

Bevel, Gardner & Associates, Shelton, WA, January 9-13, 2012

**The 17<sup>th</sup> Annual IACP Training Conference on Drugs, Alcohol and Impaired Driving**

Montreal, Quebec, July 19-21, 2011

**Basic Toxicology course: General Principles of Drug Pharmacokinetics**

Midwest Forensics Resource Center, Ames, IA, March 8-11, 2011

**Horizontal Gaze Nystagmus**

Dr. Karl Citek, Seattle, WA, January 5, 2011

**Society of Forensic Toxicologists annual meeting**

Richmond, VA, October 18-22, 2010

Workshop attended: Marijuana Pharmacology – Practical Applications for the Forensic  
Toxicologist

**DWI Detection and Standardized Field Sobriety Testing**

Seattle Police Department, Seattle WA, August 25-27, 2010

## **COURSES AND TRAINING (continued)**

### **Essentials of Crime Scene Investigation**

National Forensic Science Technology Center, Largo, FL, March 23-26, 2010

### **Firearms Safety Handling Procedures and Trajectory Analysis**

Washington State Patrol, Firearms Division, Seattle, WA, October 28-29, 2009

### **Society of Forensic Toxicologists annual meeting**

Oklahoma City, OK, October 19-23, 2009

### **Grave Excavation and Forensic Entomology**

Drs. Katherine Taylor and Beth Marshall, Seattle, WA, August 5-7, 2009

### **Basic Bloodstain Pattern Analysis**

Bevel, Gardner & Associates, Seattle, WA, February 2-6, 2009

### **Advanced Roadside Impaired Driving Enforcement**

Seattle Police Department, Seattle, WA, November 24-25, 2008

### **Society of Forensic Toxicologists annual meeting**

Phoenix, AZ, October 26-31, 2008

Workshops attended: ISO 17025 Accreditation – What You Need to Know  
The Stimulating Realm of Sympathomimetic Amines and  
Tryptamines

### **Drug Recognition Expert in-service**

Washington State Patrol, Chelan, WA, October 8-9, 2008

### **Robert F. Borkenstein Course on the Effects of Drugs on Human Performance and Behavior**

Indiana University, Bloomington, IN, April 13-18, 2008

### **Technical Report Writing**

Peabody Communication, Tacoma WA, January 30-31, 2008

### **Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation**

Indiana University, Bloomington, IN, December 2-7, 2007

### **Ultra High Performance Liquid Chromatography**

Restek Corporation, Seattle WA, October 2007

### **Interpretation of Mass Spectra**

Dr. Kenneth Busch, Atlanta, GA, January 17, 2001

### **Quality Management and Measurement Systems**

Jay Frank Rudisill Ph.D., Atlanta, GA, November 20, 2000

### **Principles of Pharmacology**

Southern Association of Forensic Scientists, Gatlinburg, Tennessee, April 28, 2000

## **COURSES AND TRAINING (continued)**

### **Forensic Application of Capillary Electrophoresis**

Southern Association of Forensic Scientists, Gatlinburg, Tennessee, April 27, 2000.

### **Forensic Toxicology of Marihuana**

Southern Association of Forensic Scientists, Gatlinburg, Tennessee, April 26, 2000.

### **Expert Witness in the Courtroom**

Roy Paschal, Forsyth, Georgia, February 15, 2000

### **Presentation Skills**

Raymond Davis, Forsyth, Georgia, February 14, 2000

### **HP GC-MSD ChemStation & Instrument Operation**

Agilent Technologies, Summerville, Georgia, August 23-27, 1999

### **Pharmacology of Drugs Affecting the Central Nervous System**

John M. Holbrook, Ph.D., Rome, Georgia, August 2 – 5, 1999

### **Science of Solid Phase Extraction**

United Chemical Technologies, Summerville, Georgia, July 8, 1999

### **Blood Alcohol and Toxicology Training Program**

Georgia Bureau of Investigation, Summerville, GA., July – September 1999

### **Chemical Microscopy and Ultramicroanalysis**

McCrone Research Institute, Chicago, IL, 1997

### **Forensic Analytical Microscopy**

McCrone Research Institute, Chicago, IL, May 1997.

## **HONORS, AWARDS, AND FELLOWSHIPS**

Young Scientist Meeting Award, Society of Forensic Toxicologists, 2010

Outstanding Senior Graduate Student Research Award, Pharmaceutical and Biomedical Sciences Department, University of Georgia, 2007

Achievement Rewards for College Scientists Scholar, 2006-2007

Fellow, American Foundation for Pharmaceutical Education, 2005-2007

University of Georgia Dissertation Completion Assistantship, 2006-2007

University Wide Graduate Fellowship, University of Georgia, 2003-2005

Allen Chemistry Graduate Incentive Scholarship, University of Wisconsin-La Crosse, 1997

## PRESENTATIONS

### **“Synthetic Cannabinoids and their Impact on Driving”**

The 22nd Annual IACP Training Conference on Drugs, Alcohol and Impaired Driving, Denver CO, August 14, 2016

### **“Impact of Legalized Recreational Marijuana in Washington State”**

International Forum on Traffic Records and Highway Safety Information Systems, Baltimore, MD, August 10, 2016

### **“Analytical Methods for the Detection of Marijuana in Biological Fluids in a Forensic Toxicology Laboratory”**

The Pittsburg Conference, Atlanta, GA, March 9, 2016

### **“Pharmacology of Marijuana”**

The National Judicial College, Seattle, WA May 20, 2015

### **“Marijuana and Synthetic Cannabinoids Impairment in Driving Cases”**

Washington State Patrol Drug Recognition Expert In-Service, Chelan, WA, October 8, 2014

### **“Marijuana Legislative Changes in Washington State”**

California Association of Toxicologists, Sacramento, CA, May 2, 2014

### **“Bath Salts: New Synthetic Cathinones” (*Presenter and Workshop Chair*)**

Annual meeting of the Northwest Association of Forensic Scientists, Missoula, MT, September 25, 2012

### **“Deadly by Design: Suicides, Assaults, and Homicides Involving Designer Stimulants” (*Presenter and Workshop Chair*)**

Annual meeting of the American Academy of Forensic Sciences, Atlanta, GA, February 21, 2012

### **“Evaluation of Drug Recognition Expert Reports in Marijuana Cases”**

Annual meeting of the Society of Forensic Toxicologists, Richmond, VA, October 20, 2010

### **“History and Scope of the DRE program” (*Presenter and Workshop Co-Chair*)**

Annual meeting of the Society of Forensic Toxicologists, Richmond, VA, October 19, 2010

### **“Alcohol as a Drug”**

Washington State Patrol Drug Recognition Expert Pre-School, Shelton, WA, March 9, 2010

### **“Prevalence of Gabapentin in Impaired Driving Cases in Washington State from 2003 to 2007”**

Annual meeting of the Society of Forensic Toxicologists, Oklahoma City, OK, October 23, 2009

### **“Alcohol as a Drug”**

Washington State Patrol Drug Recognition Expert Pre-School, Squamish, WA, September 13, 2009

## **PRESENTATIONS (continued)**

### **“The Role of Toxicology in Criminal Investigations”**

Washington State Criminal Justice Training Commission: Crime Scene Investigation - Basic, Burien, WA, June 9, 2009

### **“Alcohol as a Drug”**

Washington State Patrol Drug Recognition Expert Pre-School, Shelton, WA, March 30, 2009

### **“Drugs in the Human Body”**

Advanced Roadside Impaired Driving Enforcement, Seattle, WA, November 24, 2008

### **“Alcohol and Drug Use Among Motorcycle Driver Fatalities in Washington State from 2005-2007”**

Annual meeting of the Society of Forensic Toxicologists, Phoenix, AZ, October 31, 2008

### **“Methadone and Driving”**

Washington State Patrol Drug Recognition Expert In-Service, Chelan, WA, October 9, 2008

## **PEER REVIEWED PUBLICATIONS**

**Peterson BL**, Couper FJ. Concentrations of AB-CHMINACA and AB-PINACA and driving behavior in suspected impaired driving case. *J Anal Toxicol.* 2015 Oct;39(8):642-7

Knoy JL, **Peterson BL**, Couper FJ. Suspected impaired driving case involving  $\alpha$ -pyrrolidinovalerophenone, methylone and ethylone. *J Anal Toxicol.* 2014 Oct;38(8):615-7

Couper FJ and **Peterson BL**. The prevalence of marijuana in suspected impaired driving cases in Washington state. *J Anal Toxicol.* 2014 Oct;38(8):569-74

Louis AJ, **Peterson BL**, Couper FJ. XLR-11 and UR-144 in Washington state and state of Alaska driving cases. *J Anal Toxicol.* 2014 Oct;38(8):563-8

Poulet FM, Penraat K, Collins N, Evans E, Thackaberry E, Manfra D, Engstrom L, Geissler R, Geraci-Erck M, Frugone C, Abutarif M, Fine JS, **Peterson BL**, Cummings BS, Johnson RC. Drug-induced Hemolytic Anemia and Thrombocytopenia Associated with Alterations of Cell Membrane Lipids and Acanthocyte Formation. *Toxicol Pathol.* 2010; 38(6):907-22.

**Peterson BL**, Prevalence of Gabapentin in Impaired Driving Cases in Washington State from 2003 to 2007. *J Anal Toxicol.* 2009 Oct;33(8):545-9.

**Peterson B**, Stovall K, Monian P, Franklin JL, and Cummings BS. Alterations in phospholipid and fatty acid lipid profiles in primary neocortical cells during oxidant-induced cell injury. *Chem Biol Interact.* 2008 Aug;174(3):163-76.

## PEER REVIEWED PUBLICATIONS (continued)

**Peterson B**, Knotts T, and Cummings BS. Involvement of Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> isoforms in oxidant-induced neural cell death. *NeuroToxicology* 2007 Jan;28(1):150-60.

Saavedra G, Zhang W, **Peterson B**, and Cummings BS. Differential roles for cytosolic and microsomal Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> in cell growth and maintenance of phospholipids. *Journal of Pharmacology and Experimental Therapeutics* 2006;318(3):1211-1219.

**Peterson B** and Cummings BS. A review of chromatographic methods for the assessment of phospholipids in biological samples. *Biomedical Chromatography* 2006;20:227-243.

Zhang L, **Peterson B**, and Cummings BS. The effect of Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> on chemotherapeutic-induced death and phospholipid profiles in renal cells. *Biochemical Pharmacology* 2005; 70:1697-1706.

**Peterson B**, Su B, Chakraborty R, Budowle B, and Gaensslen RE. World population data for the HLA-DQA1, PM and D1S80 loci with least and most common profile frequencies for combinations of loci estimated following NRC II guidelines. *J Forensic Sci* 2000; 45(1):118-146.