



NAME:	Sara Dempsey	DATE:	2/22/2021
LABORATORY:	Houston Forensic Science Center		
JOB TITLE:	Supervisor-Toxicology		

Indicate all disciplines in which you do casework:

<input type="checkbox"/>	Seized Drugs	<input type="checkbox"/>	Forensic Biology/DNA
<input type="checkbox"/>	Crime Scene	<input type="checkbox"/>	Latent Prints
<input type="checkbox"/>	Digital Forensics	<input checked="" type="checkbox"/>	Toxicology
<input type="checkbox"/>	Firearms	<input type="checkbox"/>	Forensic Audio/Video

List all categories or sub-disciplines in which you do casework:

Human Performance Toxicology

Texas Forensic Science Commission (TFSC) Licensing

Per TFSC section 651.203, starting January 1, 2019, the following disciplines are subject to licensing: Seized Drugs, Toxicology, Forensic Biology & Firearms/Toolmarks. If applicable, select the type of license issued by TFSC (Select N/A if not applicable):

Type of License:	Toxicologist (Interpretative)
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Certifications:

Organization	Discipline	Type/Level (N/A if not applicable)

Education:

List all higher education institutions attended (list high school if no college degree has been attained)

Institution	Dates Attended	Major	Type of Degree Earned
Virginia Commonwealth University	Aug. 2015 - May 2019	Pharmacology & Toxicology	Doctor of Philosophy
Virginia Commonwealth University	Aug. 2013 – May 2015	Forensic Science	Master Degree
University of Mississippi	Aug. 2009 – May 2013	Forensic Chemistry	Bachelor of Science

Other Training:

List continuing education, workshops, in service, and other formal training received. Please include the course title, source, and dates of training.

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Annual Meetings:

- Society of Forensic Toxicologists, Orlando, FL, 2013
- Society of Forensic Toxicologists, Grand Rapids, MI, 2014
- Society of Forensic Toxicologists, Atlanta, GA, 2015
- Society of Forensic Toxicologists, Dallas, TX, 2016
- Society of Forensic Toxicologists, Boca Raton, FL, 2017
- Society of Forensic Toxicologists, Minneapolis, MN, 2018
- Society of Forensic Toxicologists, San Antonio, TX 2019
- Society of Forensic Toxicologists, SOFTember Virtual Program, 2020
- American Academy of Forensic Sciences, Virtual, 2021

“The Impact if the COVID-19 Pandemic on Forensic Sciences with a Focus on Opioids and Emerging Drugs” Workshop. AAFS Annual Scientific Meeting, 2021.

“A New Realm of Novel Psychoactive Substance (NPS) Opioids and NPS Benzodiazepines – Analytical and Interpretive Considerations” Workshop. AAFS Annual Scientific Meeting, 2021.

“Cannabis Impaired Driving: Where Are We in 2020?” Workshop. SOFT Annual Meeting, 2020.

“Recommended specimens, cutoffs, scope, and strategies for DUI/D testing and impact of stop limit tests” Workshop. SOFT Annual Meeting, October 15, 2019.

“Application of QTOF Techniques” Workshop. SOFT Annual Meeting, October 15, 2019.

“LC-QQQ training, maintenance and method development” – Noot Analytical Consulting Ltd. Houston Forensic Science Center, December 3, 2019.

“Introduction to Liquid Chromatography-Mass Spectrometry/Mass Spectrometry with applications to Forensic Chemistry” – Houston Forensic Science Center, December 12-13,17, 2019.

Courtroom Experience:

List the disciplines/sub-disciplines in which you have testified as an expert witness and indicate over what time period and approximately how many times you have testified in each.

Discipline or Sub-Discipline	Time Period	Times Testified

Professional Affiliations:

List any professional organizations of which you are or have been a member. Indicate any office(s) or positions held and the dates of these activities.

Organization	Member Status & Position(s) Held	Dates of Membership
Society of Forensic Toxicologists	Student Member	Aug. 2014 – Apr. 2020



	Full Member	Apr. 2020 - Present
SOFT Young Forensic Toxicologists Committee	Member	April 2019 - Present
American Academy of Forensic Sciences	Student Affiliate Toxicology Trainee Affiliate Toxicology Associate Member	Jan. 2014 – Mar. 2020 Mar. 2020 – Feb. 2021 Feb. 2021 – Present

Employment History:

List all scientific or technical positions held, particularly those related to forensic science. List current position first. Be sure to indicate employer and give a brief summary of duties. Please list your dates of employment by month and year.

Job Title:	Supervisor – Toxicology	Dates of Employment:	6/1/2020 - Present
Employer:	Houston Forensic Science Center		
Provide a brief description of duties below:			
<ul style="list-style-type: none"> • Provide day-to-day supervision of assigned staff members • Perform technical/administrative review of casework • Function as a Toxicology Analyst as needed • Provide court testimony on test results and interpretation as needed 			

Job Title:	Toxicology Technical Supervisor	Dates of Employment:	6/3/2019 – 6/1/2020
Employer:	Houston Forensic Science Center		
Provide a brief description of duties below:			
<ul style="list-style-type: none"> • Provide oversight and training of the section’s analytical operation • Perform development and validation studies of analytical methods • Perform technical review of casework • Perform routine to complex chemical analyses of biological specimens in human performance toxicology cases, prepares reports on findings for use in the criminal justice system, and provide court testimony on analytical results 			

Job Title:	Graduate Teaching Assistant	Dates of Employment:	Aug 2013 - May 2015
Employer:	Virginia Commonwealth University Department of Forensic Science		
Provide a brief description of duties below:			
<ul style="list-style-type: none"> • Managed and scheduled department graduate teaching assistants 			



- Assisted in graduate teaching assistant training and created leadership/management exercises
- Implemented departmental DEA controlled substances policy, training procedures and QA/QC program
- Managed course budgets, laboratory equipment, instruments, chemicals and supplies, and placed orders
- Oversaw chemical and safety training for department graduate teaching assistants

Job Title:		Dates of Employment:	
Employer:			
Provide a brief description of duties below:			

Job Title:		Dates of Employment:	
Employer:			
Provide a brief description of duties below:			

Other Qualifications:

List below any scientific papers authored or co-authored and/or scientific presentations given, research in which you have been involved, academic or teaching positions you have held, and any other information you consider relevant to your qualification as a forensic scientist.

<p>RESEARCH EXPERIENCE:</p> <ol style="list-style-type: none"> 1. Graduate Thesis Research, Virginia Commonwealth University, Department of Forensic Science (2013-2015) <ol style="list-style-type: none"> a. "The Identification of Primary Metabolites of the Designer Hallucinogen 25I-NBOMe" <p>PEER REVIEWD PUBLICATIONS:</p> <ol style="list-style-type: none"> 1. <u>Dempsey, S.K.</u>, Moeller, F.G., Poklis, J.L. (2018) Rapid separation and quantitation of cocaine and its metabolites in human serum by differential mobility spectrometry- tandem mass spectrometry (DMS-MS/MS). J Anal Toxicol 42(8), 518-524. 2. <u>Dempsey, S.K.</u>, Poklis, J.L., Sweat, K, Cumpston, K, Wolf, C.E. (2017) Acute toxicity from intravenous use of the tricyclic antidepressant tianeptine. J Anal Toxicol. 41(6), 547-550. 3. Poklis, J. L., <u>Dempsey, S.K.</u>, Liu, K., Ritter, J. K., Wolf, C., Zhang, S., Poklis, A. (2015). Identification of metabolite biomarkers of the designer hallucinogen 25I-NBOMe in mouse hepatic microsomal preparations and human urine samples associated with clinical intoxication. J Anal Toxicol. 39(8), 607–616. <p>SCIENTIFIC PRESENTATIONS:</p> <ol style="list-style-type: none"> 1. <u>Sara K. Dempsey</u>, Peter R. Stout, Dayong Lee, "Evaluation of Evaluation of drug-facilitated sexual assault cases in the city of Houston from 2014 to 2019," AAFS Annual Scientific Meeting, 2021.
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2. Sara K. Dempsey, Carl E. Wolf, Justin L. Poklis, "Separation of opiates and their oxime derivatives using differential ion mobility tandem mass spectrometry (DMS-MS/MS)," Society of Forensic Toxicologists, Inc. 2019 meeting, San Antonio, TX.
3. Sara K. Dempsey and Justin L. Poklis, "Differential Ion Mobility Tandem Mass Spectrometry (DMS-MS/MS) Used for the Separation of Common Opiates," Pittsburg Conference on Analytical Chemistry and Applied Spectroscopy 2019, Philadelphia, PA.
4. Sara K. Dempsey and Justin L. Poklis, "Rapid determination of cocaine and its metabolites in serum using differential ion mobility tandem mass spectrometry (DMS-MS/MS)," Society of Forensic Toxicologists, Inc. 2018 meeting, Minneapolis, MN.
5. Sara K. Dempsey, Justin L. Poklis, Kacie Sweat, Cumpston Kirk, Carl E. Wolf, "An attempt to acquire the Nostradamus Effect: the first case of intravenous use of the tricyclic antidepressant tianeptine, Society of Forensic Toxicologists, Inc. 2017 meeting, Boca Raton, FL.
6. Sara K. Dempsey, Justin L. Poklis, Carl E. Wolf, Alphonse Poklis, "Molly, Daffy, and Kiddy-Coke Walk into a Rave: A Case of Polysubstance Overdose," Society of Forensic Toxicologists, Inc. 2016 meeting, Dallas, TX.
7. Sara K. Dempsey, Justin L. Poklis, Carl E. Wolf, Alphonse Poklis, "Identification of Fifteen Metabolites of the Designer Hallucinogen 25I-NBOMe in Human Urine," Society of Forensic Toxicologists, Inc. 2015 meeting, Atlanta, GA.
8. Sara K. Dempsey, Justin L. Poklis, Carl E. Wolf, Alphonse Poklis, "The 'I's' Have It: A High Performance Liquid Chromatography Tandem Mass Spectrometry Method for the Determination of 25I-NBOH, 25I-NBOMe, and 2C-I in Urine," AAFS 67th Annual Scientific Meeting, 2015, Orlando, FL.
9. Sara K. Dempsey, Justin L. Poklis, Carl E. Wolf, Alphonse Poklis, "The Identification of Primary Metabolites of the Designer Hallucinogen 25I-NBOMe (4-Iodo-2,5-Dimethoxy-N-(2-Methoxybenzyl)-Phenylethylamine)" Society of Forensic Toxicologists, Inc. 2014 meeting, Grand Rapids, MI.

CO-AUTHORED PUBLISHED ABSTRACTS:

1. Carl E. Wolf, Kaitlin L. Pierce, Sara K. Dempsey, Carrol R. Nanco, Justin L. Poklis, William J. Korzun, "Ultra-performance liquid chromatography tandem mass spectrometry (UPLC-MS/MS) used for the separation of papaverine metabolites, a potential biomarker for latent illicit heroin use," Pittsburg Conference on Analytical Chemistry and Applied Spectroscopy 2019, Philadelphia, PA.
2. Carl E. Wolf, Sara K. Dempsey, Justin L. Poklis, "Stability of Laboratory Prepared Quality Control Materials and the Analysis of Commercially Available Brownies," Society of Forensic Toxicologists, Inc. 2017 meeting, Boca Raton, FL.
3. Justin L. Poklis, Autumn C. Cooper, Sara K. Dempsey, Carl E. Wolf, "Analysis of Mixed Fruit Chews Medibles Containing THC," Society of Forensic Toxicologists, Inc. 2017 meeting, Boca Raton, FL.
4. Justin L. Poklis, Kai Liu, Sara K. Dempsey, Shijun Zhang, Alphonse Poklis, "The Syntheses of 2-O-desmethyl and 5-O-desmethyl Metabolites of 25I-NBOMe and Their Separation Using Hydrophilic Interaction Chromatography on a UPLC-MS/MS System," Society of Forensic Toxicologists, Inc. 2015 meeting, Atlanta, GA.

