Qualitative Identification of Suspected Controlled Substances

The U.S. Customs and Border Protection (CBP) Laboratories and Scientific Services Directorate (LSSD) is seeking to host one or more National Science Foundation (NSF) student scientists with backgrounds in Chemistry or a related discipline to collaborate with LSSD analysts and scientists. LSSD provides forensic and scientific analysis in the areas of trade enforcement, weapons of mass destruction, intellectual property, import safety, and narcotics enforcement. Fulfilling this mission involves analyzing evidence for suspected controlled substances in a timely but efficient matter.

- **Project Duration:** TBD
- **Start Date:** Spring, summer or fall 2018
- **Location:** LSSD, Springfield, Virginia

Project Overview

The objective of this project is to develop and optimize a new method for the qualitative identification of suspected controlled substances using equipment such as, the ABSciex's LCQTRAP 4500. This project will involve studying the instrument and the theory behind Liquid chromatography-mass spectroscopy (LC/MS), while managing the limitations of efficiency, column stability, and detector sensitivity. This project may include, but is not limited to, the following tasks:

- Develop method for the qualitative identification of suspected controlled substances using ABSciex's LCQTRAP 4500.
- Identify and analyze various forensic samples using ABSciex's LCQTRAP 4500.
- Participate in lab activities not limited to seminar, webinars, and tours of other laboratories in the local area.
- Present findings to LSSD staff and complete a paper documenting findings subjected to the organization's quality system process.

Qualifications

The ideal candidate will have LC/MS experience and a strong interest in forensic chemistry. The candidate shall be detail-oriented, possess excellent organizational, presentation, and written skills, and be able to perform tasks independently with little supervision

Eligibility Requirements

- Citizenship: U.S. Citizen Only
- Degree: Chemistry
- Discipline(s): Analytical Chemistry

Contact

Email: Chantelle Beachum
Phone: 703 921 7137