

**Centennial Honors College**  
**Thomas E. Helm Undergraduate Research Day 2024**

**ABSTRACT**

Major: Forensic Chemistry

Poster

Faculty Mentor(s): Ligou Song

---

**Quantification of Cannabigerol (CBG) among 19 Cannabinoids in  $\Delta$ 8-THC (Tetrahydrocannabinol) fortified White Whale CBG Hemp Flowers by Liquid Chromatography Ultraviolet Detection**

**Nayali Licea**

---

A liquid chromatography ultraviolet detection (LC-UV) method was developed for the quantification of cannabigerol (CBG) in  $\Delta$ 8-THC (Tetrahydrocannabinol) fortified white whale CBG hemp flowers among nineteen cannabinoids. The quantification was achieved using external standard calibration between 0.02 and 25 microg/mL. The limits of quantitation (LOQ) were determined to be 0.04% CBG in hemp flowers. To recover CBG, a sample was combined with methanol to prepare a 25 mg/mL mixture. After ultrasonication, centrifugation and filtration, the extract was serially diluted to 50  $\mu$ g/mL and analyzed by LC-UV. The measurement precision in triplicate was 7.6%. The method is not interfered by other cannabinoids present in hemp flowers.