

# 2023 Faculty Research Proposal for UAMS College of Pharmacy Summer Student Research Fellowship

---

## **FACULTY INFORMATION:**

**NAME:** Brendan Frett

**DEPARTMENT:**    Pharmacy Practice  
                           Pharmaceutical Sciences

**LOCATION:** Biomedical Research Building II 166-2

---

## **PROJECT INFORMATION:**

**TITLE:** Development of Precision Medicine for Oncology

**LOCATION OF THE PROJECT:** Biomedical Research Building II

### **BRIEF DESCRIPTION OF THE PROJECT OR SPECIFIC AIMS:**

Drug discovery is largely target-driven, where drugs are engineered to pharmacologically modulate a target in a disease state. This type of drug discovery has been utilized for oncology to improve effectiveness and reduce toxicity to chemotherapy. The Frett laboratory is interested in further improving target-based drug discovery in oncology by uncovering next-generation strategies to target malignant disease. Trainees in our laboratory will learn about drug synthesis, drug/target studies, and cell culture, all in the context of drug discovery and development. This Summer Research Internship will provide students with hands on experience learning about the discovery of drugs and their subsequent development in a laboratory setting.

### **STUDENT'S RESPONSIBILITIES/DUTIES FOR THE PROPOSED PROJECT:**

Students involved in this project will obtain experience in the drug discovery process. Day-to-day, the student will spend time designing and synthesizing new potential drugs, which can be further refined as the project progresses. State-of-the-art equipment will be readily available for use by the student to help expedite research efforts.

**ESTIMATED TIME FOR PROJECT COMPLETION:** \_\_\_12\_\_\_ weeks (≥10 weeks required)

**DOES THE WORK INVOLVE ANIMAL RESEARCH?**  YES  
 NO

### **ORAL/POSTER PRESENTATION OPPORTUNITY:**

It is required that the student present their work at lab meetings to improve oral communication and presentation skills. The student is encouraged to present work at any applicable national or international meeting.

### **MANUSCRIPT SUBMISSION:**

Journal of Medicinal Chemistry, European Journal of Medicinal Chemistry