

Pharmacy Student Summer Research Fellowship Proposal for 2021

FACULTY INFORMATION:

NAME: Brendan Frett, PhD
DEPARTMENT: Pharmaceutical Sciences

LOCATION: Bio Med 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: Drug discovery is largely target-driven, where drugs are engineered to modulate a pharmacologically, relevant target in a given disease state. This type of drug discovery has been heavily 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. We have numerous, active projects that aim to uncover next-generation strategies to target malignant disease. Trainees in my laboratory will learn a variety of techniques including organic chemistry (drug synthesis), analytical chemistry, biochemistry (drug/target studies), and cell culture, all in the context of drug discovery and development. This Summer Research Internship opportunity will provide students a unique approach to learn about the discovery drugs and their subsequent development in a laboratory-based setting.

STUDENT'S RESPONSIBILITIES-DUTIES IN THE PROPOSED PROJECT: Students involved in this project will obtain significant 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

DOES THE WORK INVOLVE ANIMAL RESEARCH? YES -----
NO ----X----

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