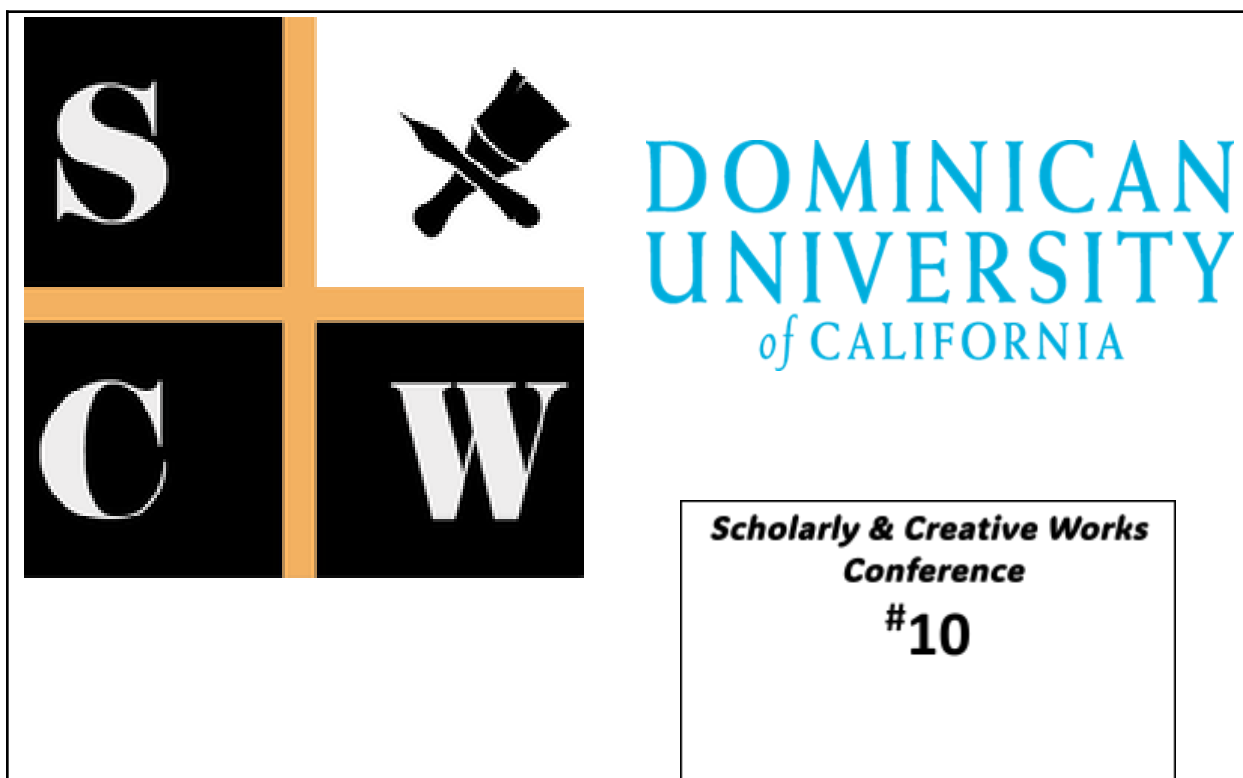




Presenter: Matthew Nickel

Session & Time: Poster I / 11:00 to 12:00pm

Room: Guzman Lecture Hall

Discipline: Biology

Faculty Mentor: Tyler Johnson

Digital Portfolio URL:

Title: Medicinal Chemistry & Chemical Biology of Natural Products: From Sea to Pharmacy

Abstract:

Natural products chemistry has served as the backbone for modern therapeutic development programs since the dawn of the pharmaceutical age. Compounds derived from plants, microorganisms, and more recently marine organisms have enjoyed a rich history for providing inspiration for many of the molecules we use in medicine today. Our research lab focuses on the discovery and medicinal chemistry of marine natural product compounds to search for:

- 1) therapeutic lead molecular structures to treat diseases in biomedical research
- 2) novel molecular probes in chemical biology research.

Some of the major chemotypes studied in our laboratory exhibit cytotoxicity to cancer cell lines by distinct mechanisms of action (MOA) which include: microfilament disruption (G-actin), mitochondrial complex I inhibition, or microtubule stabilization.