

CHEMISTRY Departmental Seminar

Spring 2022
CHEM 285/191 Schedule
Extra Seminar
Thursday at 4:30-5:45PM

February 10th, 2022

Dr. Erin McCauley
California State University Dominguez Hills

Marine Natural Products – Medicines from the Sea

Natural products are secondary metabolites produced by living organisms. They have played an important role in traditional medicine for thousands of years and continue to be an essential part of the current healthcare system, as over 60% of all approved therapeutic drugs are either natural product, natural product derivatives, or their pharmacophores are natural product inspired. The success of natural products and their derivatives as therapeutic agents is largely due to their high structural diversity and specific biological targets.

The marine environment is rich in ecological and chemical diversity. Dr. McCauley's research has focused on identifying natural products from marine corals, sponges, and microorganisms that can serve as drug leads for downstream pharmaceutical therapeutic development. Much of this work has been focused in two areas, the first is to identify marine natural products that exhibits selective cytotoxicity towards solid tumor cell lines from cancers with low 5-year survival rates. The second is to identify marine natural products that target important virulence factors of antibiotic resistant pathogenic bacteria. This research has resulted in the discovery of an array of chemical scaffolds that can be used to advance therapeutic development.

Zoom link: <https://sjsu.zoom.us/j/84626719622>

Please RSVP at <https://forms.gle/QuLDzNBjCkNJXjwK6> if you're not enrolled in Chem 285 or Chem 191