

Presenter: Angelly Escalante

Session & Time: Poster III

Room/Time: GLH / 3:30-4:30

Discipline: Biochemistry

Faculty Mentor: Tyler Johnson

Digital Portfolio URL:

Title: Comparing Dichloromethane vs Ethyl Acetate as a Green Chemistry Substitute to Solvent Partition Bioactive Marine Sponge-derived Natural Products

Abstract:

Dichloromethane (DCM), also known as methylene chloride, is a versatile solvent that has long been a staple in chemistry laboratories. However, new regulations in the US are leading faculty to look for an alternative solvent in academic settings to provide a safer environment for students and staff. A popular green chemistry alternative to DCM is ethyl acetate due to it being significantly less toxic and more environmentally friendly. While ethyl acetate is used for isolating marine natural products, there has yet to be a direct comparison of the two solvents for chemical profiling marine sponges. This study aims to bridge that gap by evaluating ethyl acetate as a safer and more environmentally friendly alternative to DCM in isolating secondary metabolites.