

Theodore Berger

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WORK EXPERIENCE

Gerwick Lab at UCSD, Intern, December 2021-Present

La Jolla, CA

- Conducted peptide coupling and organic reactions in support of medicinal chemistry research and thin-layer chromatography to probe for synthetic products
- Purified synthetic products via silica column chromatography, aqueous workups, rotary evaporation, and celite filtration
- Elucidated reaction and purification identities using liquid chromatography mass spectrometry
- Compiled data from scientific literature discussing cysteine protease enzyme inhibitors and epoxyketone-containing compounds into Excel spreadsheets for scientific research paper writing
- Performed liquid-liquid extractions of cyanobacteria cultures using organic reagents and water
- Prepared biological extracts for lyophilization using nitrogen evaporator and rotary evaporator machine
- Prepared general and specialized growth media for cyanobacterial cultures

Bennett Lab at UCSD, Intern, September 2021-December 2021

La Jolla, CA

- Used centrifuges and a sonicator to lyse and separate samples in preparation for Western blots
- Utilized fume hoods, compound light microscopes, manual and motorized pipettes, Petri dishes, well plates and viral vectors (plasmids carrying human lentivirus) to split cell cultures and transfect cells
- Processed gel and blot scan results using SybrSafe DNA-staining dye and ImageLab software
- Performed plasmid gel electrophoreses using restriction enzymes, plasmids, pipettes and buffer tanks

EDUCATION

University of California at San Diego, Molecular Synthesis BS – Class of 2025 (GPA: 4.0)

La Jolla, CA

- Organizations/Awards: Regents Scholarship Recipient, Provost's Honors List (Fall 2021- Spring 2022)
- Relevant Coursework:
 - Organic Chemistry I & II
 - Differential Equations
 - Genetics
 - Physics – Heat, Waves, Optics, Electricity & Magnetism
 - Physics Lab

Santa Monica High School (GPA: 4.0)

Santa Monica, CA

- Organizations/Awards: CSF and NHS Chapter President, Academic Competition Team Captain (2018-2021)

LEADERSHIP EXPERIENCE

Santa Monica High School, Cross Country and Track Team Captain

Santa Monica, CA

- Led varsity boys' team to victory at the 2019 Cross Country Ocean League Championship and 90+ team members in daily practice

SKILLS & INTERESTS

Skills: Microsoft Office (Word, Excel, PowerPoint) | Google Suite | Molecular Biology (SDS-PAGE, Western Blot, ImageLab) | Organic Synthesis | Instrumental Chemistry (Rotary Evaporator, LCMS, Combi-Flash)