



Dr. Nathaniel Brown

Lecturer
Chemistry

Bio

ACADEMIC APPOINTMENTS

- Lecturer, Chemistry

Teaching

COURSES

2025-26

- Chemical Principles I: CHEM 31A (Aut)
- The Chemical Principles of Life I: CHEM 141 (Win)
- The Chemical Principles of Life II: CHEM 143 (Spr)

2024-25

- Chemical Principles I: CHEM 31A (Aut)
- Exploring Research and Problem Solving Across the Sciences: CHEM 10 (Aut)
- The Chemical Principles of Life I: CHEM 141 (Win)
- The Chemical Principles of Life II: CHEM 143 (Spr)

2023-24

- Chemical Principles I: CHEM 31A (Sum)
- Chemical Principles: From Molecules to Solids: CHEM 31M (Aut)
- Exploring Research and Problem Solving Across the Sciences: CHEM 10 (Aut)
- The Chemical Principles of Life I: CHEM 141 (Win)
- The Chemical Principles of Life II: CHEM 143 (Spr)

2022-23

- Chemical Principles I: CHEM 31A (Sum)
- Chemical Principles: From Molecules to Solids: CHEM 31M, MATSCI 31 (Aut)
- Exploring Research and Problem Solving Across the Sciences: CHEM 10 (Aut)
- The Chemical Principles of Life I: CHEM 141 (Win)
- The Chemical Principles of Life II: CHEM 143 (Spr)

Publications

PUBLICATIONS

- **Combined Structural Analysis and Molecular Dynamics Reveal Penicillin-Binding Protein Inhibition Mode with β -Lactones** *ACS CHEMICAL BIOLOGY*
Flanders, P. L., Contreras-Martel, C., Brown, N. W., Shirley, J. D., Martins, A., Nauta, K. N., Dessen, A., Carlson, E. E., Ambrose, E. A.
2022
- **Chemoselective Labeling and Immobilization of Phosphopeptides with Phosphorimidazolide Reagents.** *Chembiochem : a European journal of chemical biology*
Brown, N. W., Schlomach, S. K., Marmelstein, A. M., Fiedler, D.
2022: e202200407
- **Affinity-based proteomics reveals novel targets of inositol pyrophosphate (5-IP7)-dependent phosphorylation and binding in *Trypanosoma cruzi* replicative stages** *MOLECULAR MICROBIOLOGY*
Mantilla, B. S., Kalesh, K., Brown, N. W., Fiedler, D., Docampo, R.
2021; 115 (5): 986-1004
- **MLKL Requires the Inositol Phosphate Code to Execute Necroptosis.** *Molecular cell*
Dovey, C. M., Diep, J. n., Clarke, B. P., Hale, A. T., McNamara, D. E., Guo, H. n., Brown, N. W., Cao, J. Y., Grace, C. R., Gough, P. J., Bertin, J. n., Dixon, S. J., Fiedler, et al
2018; 70 (5): 936–48.e7