

## **Chemistry and Biochemistry**

**POSTER SESSION, 9:30 to 11:30 am**

**Campus Center, Odeum A & B**

**Examination of the visual effects of NaCl exposure on the neurites of NGF differentiated PC12 cells**

Charlotte Adams

Advisor: Suzanne Scarlata

**Synthesis and SAR Studies of Coronavirus Main Protease Inhibitors**

Patrick Bailey

Advisor: José Argüello and Akbar Ali (UMass)

**Methods for Imaging Salmonella Biofilms**

Meghan Barry

Advisor: Christopher Lambert

**Metal Dyshomeostasis in Alzheimer's Disease: An Observation of the Role of ZIP12 in Zinc Uptake in Neuronal Cells**

Madison Brown, Lily Lancellotti, Allison Walker and Morgan Whitney

Advisor: Robert Dempski and Lou Roberts (BBT)

**Medium Chain Fatty Acids Cause Toxicity in *C. elegans***

Juliet Bolduc

Advisor: Carissa Olsen

**Novel Synthesis of Biologically Relevant Heterocycles**

Lilian Carleu

Advisor: Anita Mattson

**Biochemical Studies of CDK16**

Kallie Case

Advisor: Suzanne Scarlata

**Characterization of Two Novel Apoptin Homologs via Structural and Localization Predictions and in vitro Confirmation**

Megan Caten and Eva Plankey

Advisor: Destin Heilman

**What impacts do artificial sweeteners have on clean drinking water? Remediation of Artificial Sweeteners in Drinking Water with Zeolites**

Elizabeth Dahlberg

Advisor: Drew Brodeur

**Searching for Cu Importers in Salmonella Typhimurium**

Jocelyn Diaz

Advisor: José Argüello

**Investigation of PCV1 VP3 Through Structural Prediction and Analysis of Protein Dynamics**

Kylie Doehring and Nicholas Sorel

Advisor: Destin Heilman

**Exploring the Impacts of Diet and Stress on Membranes in *C. elegans***

Diana DiTullio and Lilana MacDonald

Advisor: Carissa Olsen

**Flavylium-Inspired Catalysts for Chromenone Functionalization**

Olivia Guimaraes and Jacob Vosburg

Advisor: Anita Mattson

**Monitoring biological interfaces for Salmonella resistance in a fluidic channel**

Lindsay Hoey

Advisor: Christopher Lambert

**Artemisia annua tea drug interactions: new method development**

**Russell Kam and Ryan Polansky**

Advisor: Suzanne Scarlata and Pamela Weathers (BBT)

**Exploring Cellular Dynamics: Monitoring PLCb1 Expression and Visualizing Subcellular Localization in PC12 Cells**

Rafaela Kanli

Advisor: Suzanne Scarlata

**Utilizing Sensitizers for Zinc Photocages**

Sophie Loree

Advisor: Shawn Burdette

**Amide Coupling Creates Hydrophilic Polymers  
for UiO-66 Attachment**

David MacLeod

Advisor: Ronald Grimm

**Investigation of porous metal-organic  
frameworks as solid supports for separation of  
organic molecules**

Quinn McCue

Advisor: John MacDonald

**Fabrication of Phosphatidylserine-Containing  
Asymmetric Giant Unilamellar Vesicles by  
Hemifusion**

Jake McDonough

Advisor: Arne Gericke

**Investigating the Effects of Salt Stress on the  
Morphology of PC12 Cells**

Bailey Norris

Advisor: Suzanne Scarlata

**Diazolation of 3-bromotetrahydrofuran Via  
Photoredox Catalysis**

Matthew Resmini

Advisor: Patricia Musacchio

**Conversion of Carboxylic Acids to Ketones  
Utilizing Nitrile Sources**

Oliver Zaba

Advisor: Patricia Musacchio