

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 and Albertha J.M. Walhout (Umass)

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 PLC β 1 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