

Biology & Biotechnology

POSTER SESSION, 9:30am to 12:30pm

Rubin Campus Center, Odeum

Applications of Aptamers for Toxicological Remediation of PFOA

William Miller, Hayley Wigren
Advisor: Natalie Farny

***Artemisia annua* Tea Drug Interactions: New Method Development**

Ryan Polansky, Russel Kam
Advisors: Pamela Weathers, Suzanne Scarlatta

Artemisinin's Effect on Iron Metabolism in Breast Cancer Cells

Daisy Connors, Clare Nargi
Advisors: Jill Rulfs, Michael Buckholt

Assessing Nucleic Acid Aptamers for the Amelioration of Copper Toxicity

Stephanie E. Reis
Advisors: Natalie G. Farny, Jagan Srinivasan

Chillin' Out: The Role that CBD Plays in Parkinson's Disease Treatment

Jan Anthony, Katherine Corbin, Rachel Grandmaison, Mikayla Raffin
Advisors: Mike Buckholt, Jill Rulfs, Jagan Srinivasan

Comparison of Pre-Operative Site Sterilization Techniques in Equine Medicine

Holly Galvin
Advisors: Michael Buckholt, Jill Rulfs
Sponsor: Michael Myhre Equine Clinic

Conservation and Function of the N terminal Insert of Kek1

Josephine Patten
Advisor: Joseph Duffy

Discovery of a Novel Mutation in Rifampicin Resistant *E. coli*

Kyra Robinson
Advisor: Louis Roberts

Effects of Cortical Dynein on Chromosome Movement and Alignment

Nora Shanks
Advisor: Amity Manning

EGFR: Functional & Evolutionary Analyses of Domain V

Alexandra Poulhazan
Advisor: Joseph Duffy

Examining the Effects of Phytoestrogens on Ovarian Cancer Cells

Sarah Aspinwall, Vanessa Cenkollari, Hannah Gilmore, Komlavi Touglo
Advisors: Jill Rulfs, Michael Buckholt

Functional Analyses of the Kek5 Intracellular SLIM, CO1, in *Drosophila* and Disease Implications in Humans

Kelly Heffernan
Advisor: Joseph Duffy

Impacts of Loons Syringes on Vocalization

Maryam Al Hakeem, Caitlin Guilfoyle
Advisors: Michael Buckholt, Jill Rulfs, John Mager(ONU)

Implementation of Telehealth Techniques to Improve Emergency Department Best Practices in Suicide Prevention

Taylor Jane McGinty
Advisor: Jill Rulfs

Inducible mCardinal Genetic Circuit in *Pseudomonas putida* for Soil Contaminant Remediation

Lauren Abraham
Advisor: Natalie Farny

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, Morgan Whitney
Advisors: Robert Dempski, Lou Roberts

Mindfulness could change your brain... for the better!

Sakshi Joglekar
Advisor: Ben Nephew

Modulation of Cellular Stress Response by the RB Tumor Suppressor Protein

Grace McCarthy, Jacquelyn Nicoletti
Advisor: Amity Manning

Neural Mechanisms of Social Threat Processing Can Optimize Emotion Regulation Training to Improve Mental Health

Eva Petschek
Advisors: Richard Lopez, Benjamin Nephew

North American Moth Populations & the Effects of Changing Climate

Zoë Swartley, Michelle Kirtich
Advisor: Marja Bakermans

NUDIX Hydrolase Expression and Impact on mRNA Structure

Olivia Garrity, Kaleigh Caserta
Advisor: Louis Roberts

Operation Tick Hunt: Developing an Experimental Framework to Monitor Lyme Disease in Central Massachusetts

Dylan Mackisey, Connor McKaig, Ciara Moroney
Advisors: Michael Buckholt, Chris Collins

Optimizing Immunopurification of Exocyst Complex in Plants

Ren Vitellaro
Advisors: Luis Vidali, Edward Chocano Coralla, Mary Munson(UMass)
Sponsor: UMass

Psychosocial and Biochemical Correlates of Nicotine Administration via Vaping Behaviors

Mira Kirschner
Advisors: Angela Incollingo Rodriguez, Jagan Srinivasan

Purification and Characterization CLoG1 from Moss

Zachary Gogna
Advisors: Luis Vidali, Louis Roberts

Screening for ErbB Family Inhibitors to Identify Potential Cancer Therapeutics

Samuel Levitan
Advisor: Joseph Duffy

Stress-dependent Cilia Remodeling in *C. elegans*

Katelyn Quinn-Cyr
Advisors: Inna Nechipurenko, Jim Doyle

Suv420H2 Localization during Mitosis is Sensitive to Phosphorylation

Stephanie Lee
Advisor: Amity Manning

The Effect of Gut Microbiome Modifications on Chemosensory Deficiencies in *C. elegans* Models of Alzheimer's Disease

Grace Solod
Advisor: Jagan Srinivasan

The Role of the Map Kinase Pathway in *C. elegans* Immune Response Against *C. albicans*

Alexis Wood
Advisor: Reeta Rao

The Roles of RNA Degradation Proteins in Mycobacteria

Madelaine Freitas, Alana Lue Chee Lip
Advisor: Scarlett Shell