

## UNDERGRADUATE RESEARCH SYMPOSIUM SCHEDULE OF EVENTS SATURDAY, APRIL 26, 2025 · GENERAC HALL (LOWER-LEVEL)

| TIME  | CLASSROOM SO11  | CLASSROOM S010  | CLASSROOM SOO9  |
|-------|---|---|---|
| 8:00  | ALEXANDER GREGORIUS [A. EBELING]<br>Agrobacterium Tumefaction of the Zinc<br>Transport Enzymes ZIP1 and ZIP3 Allows for<br>a Hyperaccumulation of Zinc in Agricultural<br>Plants Causing Root Allelopathy | <b>LOGAN HENNEN</b> [WITZ]<br>Cutting Down Complexity:<br>Methods for Dimensionality Reduction                  | <b>LYDIA WITTHUHN</b> [DEGNER]<br>Impact of Nitrates, Phosphates,<br>and Light Diffusion on Eurasian<br>Watermilfoil Phenotypic Expression  |
| 8:20  | ALISSA KEOHAVONG [HENDEE]<br>Zebrafish Modeling Hypoparathyroidism<br>Treatment with Induced Renal Defect<br>Symptoms Seen in DiGeorge Syndrome   | <b>SILAS EBELING</b> [T. BROWN]<br>Predicting Energy Generated by<br>Solar Panels from Efficiency Constant      | MARINA KRISTL [DEGNER]<br>Sperm Composition Change<br>in <i>Aedes aegypti</i>   |
| 8:40  | FAITH BOERNER [HENDEE]<br>Assessing the Impact of Oral Contraceptive<br>Use with Inflammatory Markers: A Review   | ALYSSA EBELING [MEYER]<br>Galois Theory: Solving Millenia-old<br>Geometric Problems                             | MARISSA HENNIG [DEGNER]<br>Conditioning Madagascar Hissing<br>Cockroaches to Detect Allergens   |
| 9:00  | <b>LEAH DERONJA</b> [HENDEE]<br>Effects of IL-10 and NK-lysin 4 Knockdown as<br>a Zebrafish Relapsing Polychondritis Model  | <b>MEGAN GROW</b> [T. BROWN]<br>Modeling Financial Savings from<br>Energy-Conserving Home Upgrades              | <b>AIDAN NEWBERG</b> [DEGNER]<br>Extraction and Identification of eDNA<br>from <i>Spongilla lacustris</i> Samples                           |
| 9:20  | BREAK   |   |   |
| 9:35  | KEYNOTE ADDRESS BY DR. JOEL DAVIS (S011)  |   |   |
| 10:20 | <b>ALYSSA BIVENS</b> [WERNER]<br>The Identification of Microbes with<br>Antibacterial Properties from Biosolids   | AIDAN NEWBERG [MEYER]<br>The Story of Axiomatic Set Theory  | SAMUEL STUEBS [SLAKER]<br>The Acute Effects of Mindfulness Meditation<br>on Attention and Working Memory                                    |
| 10:40 | JAYLA SEMONS [WERNER]<br>Dental Microbes:<br>In Relation to Cutural Diet  | <b>RYAN HENNING</b> [T. BROWN]<br>Exploring Energy and Emission Impacts<br>from Energy-Conserving Home Upgrades | <b>EMMA STROHM</b> [CLOSE]<br>The Effects of Adverse Childhood<br>Experiences and Social Support on<br>Blood Pressure and Mental Health     |
| 11:00 | SOPHIA KERKOW [WERNER]<br>The Effects of Estradiol on Oral Bacterial<br>Strains Streptococcus salivarious and<br>Streptococcus mutans   | <b>EMILY BUCH</b> [MEYER]<br>Introduction to Knot Theory:<br>How To Untie Your Shoelaces                        | KAYLEE CADEAU [PARKER FEDEWA]<br>Band-Aids Don't Fix Bullet Holes:<br>The Language and Rhetoric of<br>Individual Responsibility in Wellness |
| 11:20 | KAYLA HANSON [HENKEL]<br>Expression and Characterization<br>of Thiamine Pyrophosphate Gene in<br><i>Chlamydia trachomatis</i> L2  | <b>RICHARD HILL</b> [KUEHN]<br>Astrophotography   | <b>JULIA FAUGHT</b> [FARLEY]<br>Agency and Identity in the<br>Performance of 'Folk'   |