Symposium Itinerary

Friday, April 8th

2:00 – 4:00 pm  Registration, Presentation Upload, & Poster Setup

4:00 – 5:00 pm  Opening Keynote Address: Dr. Paula Mouser

“Diving into Deep Shale – Microbial Travels and Persistence in the Hydraulic Fracturing Ecosystem”

5:00 – 6:15 pm  Oral Presentations, Session I

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<tr>
<th>Time slot</th>
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<tr>
<td>5:00 – 5:15</td>
<td>Christopher Smyth</td>
<td>Sink Drains to Sea Turtle Eggs: Unraveling the Ecology and Epidemiology of Infectious Fusaria in Humans and Animals</td>
</tr>
<tr>
<td>5:15 – 5:30</td>
<td>Jessie Larios-Valencia</td>
<td>CysB-regulated Genes of Vibrio fischeri are Heterogeneously Expressed within the Squid Light Organ</td>
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<tr>
<td>5:30 – 5:45</td>
<td>Freddy Magdama</td>
<td>The Importance of Endophytes in Developing Molecular Detection Methods: The Case for Race 4 of Fusarium oxysporum f. sp. Cubense Causing Panama Disease on Bananas</td>
</tr>
<tr>
<td>5:45 – 6:00</td>
<td>Maliheh Safari</td>
<td>Evolution of a Persistent Virus in Different Pepper Cultivars</td>
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<tr>
<td>6:00 – 6:15</td>
<td>Rebecca Johnson</td>
<td>Use of a Transgenic Virus to Modulate microRNA and Protein Levels in the Malaria Vector Anopheles gambiae</td>
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6:15 – 7:15 pm  Poster Presentation Session I (with catered dinner)

Saturday, April 9th

8:00 – 9:00 am  Registration (Catered Breakfast)

9:00 – 9:10 am  Opening Remarks

9:10 – 10:10 am  Poster Presentations, Session II
### Oral Presentations: Session II

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<tr>
<td>10:10 – 10:25</td>
<td>Alison Franklin</td>
<td>Water Conservation through Wastewater Reuse at Penn State’s Living Filter: Are We Eating and Drinking our Prescription Drugs?</td>
</tr>
<tr>
<td>10:25 – 10:40</td>
<td>Kyra Murrell</td>
<td>GCxGC-TOFMS Comparison of Extraction Techniques for the Determination of Emerging Contaminants in Wastewater</td>
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<tr>
<td>10:55 – 11:10</td>
<td>Emma Clement</td>
<td>Feasible Mixing Times for a Water-purifying Moringa Oleifera – Functionalized Sand (f-sand) Filter</td>
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### 11:30 – 11:40 am

Break

### 11:40 – 12:40 pm

Featured Keynote Address: **Dr. Marc Edwards**


### 12:40 – 1:20 pm

Catered Lunch

### 1:20 – 2:40 pm

Oral Presentations, Session III

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<tr>
<td>1:20 – 1:35</td>
<td>Ozgul Calicioglu</td>
<td>Improvement of Bioenergy Yields Obtained from Duckweed by Sequential Ethanol Fermentation and Anaerobic Digestion</td>
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<tr>
<td>1:35 – 1:50</td>
<td>Andrew Heon</td>
<td>Abiotic Analysis of Gas Diffusion and Aqueous Cathodes for Microbial Electrolysis Cells</td>
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<tr>
<td>1:50 – 2:05</td>
<td>Wulin Yang</td>
<td>Immobilization of Fe-N-C Co-catalyst on Activated Carbon with Enhanced Cathode Performance in Microbial Fuel Cells</td>
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<tr>
<td>2:05 – 2:20</td>
<td>Yaoli Ye</td>
<td>Wastewater Treatment Using a Novel Aerated and Fluidized Bed Membrane Bioreactor</td>
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<tr>
<td>2:20 – 2:35</td>
<td>Mohammad Rahimi</td>
<td>Copper Removal from Wastewater Using Thermally Regenerative Electrodeposition Battery</td>
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### 2:40 – 2:50 pm

Break
2:50 – 3:55 pm  Oral Presentations Session IV

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<tr>
<td>2:50 – 3:05</td>
<td>Gulten Izmirilioglu</td>
<td>Optimization of Growth Conditions for Simultaneous Saccharification and Fermentation of Ethanol by <em>Aspergillus niger</em> and <em>Saccharomyces cerevisiae</em> in Biofilm Reactors</td>
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<tr>
<td>3:05 – 3:20</td>
<td>Hang Wen</td>
<td>Understanding the Dependence of Magnesite Dissolution Rates on Spatial Heterogeneity</td>
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<tr>
<td>3:20 – 3:35</td>
<td>Xin Gu</td>
<td>How Tree Roots Affect Shale Weathering at Shale Hills CZO</td>
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<tr>
<td>3:35 – 3:50</td>
<td>Allison Karp</td>
<td>Grassland Expansion in the Miocene: A Fire Biomarker Comparison between Two Records of Ecological Change</td>
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3:55 – 4:10 pm  Coffee Break

4:15 – 5:15 pm  Closing Keynote Address: **Dr. John Kelmelis**

“*Five Things You Should Know about Science and Policy*”

5:15 – 5:45 pm  Awards Ceremony and Concluding Remarks

5:45 – 6:00 pm  Poster Removal
# Overview of Poster Presentations

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<td>Flor Acevedo</td>
<td>Beyond Strengthening the Leaf Surface – Silicon Enhances Herbivore-induced Plant Defense Responses</td>
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<td>2</td>
<td>Moses Ajemigbitse</td>
<td>A Novel Process for Reclaiming Marketable Raw Materials from Hydraulic Fracturing Wastes</td>
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<td>3</td>
<td>Anita Behari</td>
<td>Stopping the Cereal Killer: Exploring Biological Control to Mitigate <em>Fusarium</em> Head Blight of Wheat</td>
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<td>4</td>
<td>Juan Callejas</td>
<td>Electrocatalytic and Photocatalytic Hydrogen Evolution Using Iron Phosphide Nanoparticles</td>
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<td>5</td>
<td>Luis Castillo</td>
<td>Impact of Shale Gas Wastewater Disposal on Conemaugh River Lake Sediments</td>
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<td>6</td>
<td>Weile Chen</td>
<td>Identity of Host Tree Species May Not Control the Community Composition of Ecto- and Arbuscular Mycorrhizal Fungi</td>
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<td>7</td>
<td>Sarah Cronk</td>
<td>Role of Iron Minerals in Preserving Organic Carbon during Aerobic Degradation</td>
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<td>8</td>
<td>Dinakaran Elango</td>
<td>Improving Anthracnose Disease Resistance through Phytoalexins in Sorghum (<em>Sorghum bicolor</em> (L.) Moench) by Genome Wide Association Studies</td>
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<td>9</td>
<td>Carly Hawkins</td>
<td>New Antibiotic Development: Cloning and Expression of Novel Mannose-binding Lectin from Rainforest Soil</td>
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<td>10</td>
<td>Jennifer Estrada</td>
<td>Effect of Brine Evolution on Ca-isotope Composition in the Salar de Atacama, N. Chile</td>
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<td>11</td>
<td>Alexandra Everhart</td>
<td>Data Analysis of Emerging Contaminants in Surface Runoff</td>
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<td>12</td>
<td>Carlos Fernandez Pulido</td>
<td>Using <em>Lemma minor</em> (duckweed) Grown in Contaminated Waters as a Sustainable Soil Amendment: Recycling Nutrients to Reduce Environmental Pollution and Grow Food Sustainably</td>
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<td>13</td>
<td>Melissa Finley</td>
<td>Examining the Relationship of Nutritional Auxotrophy and Pathogenicity in <em>Erwinia amylovora</em> via Tn5 Mutagenesis</td>
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<td>Alison Franklin</td>
<td>Presence of Three Antibiotics in Wheat Plants and Groundwater at the Living Filter: A Water Reuse Site</td>
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<td>15</td>
<td>Maridel Fredericksen</td>
<td>New Insights into a Behavior-controlling Fungus</td>
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<td>16</td>
<td>Emily Grandinette and Andrew Murtha</td>
<td>Characterization of Novel Symbiotic <em>Vibrio fischeri</em> Strains EMG003 and ANM004</td>
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<td>Rob Harvey</td>
<td>Assessment of <em>Calonectria pseudonaviculata</em> Microsclerotia Survival in Compost over Varying times and Temperatures</td>
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<td>Ethanol Fermentation by <em>Saccharomyces cerevisiae</em> from Potato Waste Hydrolysate in Biofilm Reactors</td>
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<td>Elnaz Kermani</td>
<td>Simulation of Seepage through Porous Media Using Smoothed Particle Hydrodynamics Method</td>
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<td>2</td>
<td>Faith Kibuye</td>
<td>Impact of Land Use and Drinking Water Treatment Processes on the Occurrence of Pharmaceuticals and Personal Care Products (PPCPs) in the Susquehanna River Basin</td>
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<td>3</td>
<td>Shelby Lyons</td>
<td>Ocean Redox Change during the Paleocene-Eocene Thermal Maximum: Insight from Organic Geochemical Proxies</td>
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<td>Aleia Mouchref and Emma Schwendeman</td>
<td>Analysis of Novel <em>V. fischeri</em> Strains ABM004 and EBS004</td>
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<td>Aria Parangi</td>
<td>Detection of Pb(II) in Aqueous Samples Using a Turn-on Ratiometric Chemosensor Coupled with a Hand-held Portable Fluorometer</td>
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<td>Shane Pusey</td>
<td>Taxonomic Description of <em>Fusarium solani</em> Species Complex Phylogenetic Species 12 (FSSC 12), A Fungal Pathogen of Marine Animals</td>
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<td>7</td>
<td>Benjamin Roman</td>
<td>Maximizing the Yield of High-protein Duckweed Grown on Domestic Wastewater for Beneficial Reuse as Aquaponics Feedstock</td>
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<td>Jacob Romeiser</td>
<td><em>Beauveria bassiana</em> Biopesticide Sporulation and Bed Bug Mortality on Tapes and Adhesive-bound Textiles</td>
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<td>Shelia Saia</td>
<td>Factors Influencing Phosphorous Cycling in Biogeochemical ‘Hot Spots’</td>
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<td>10</td>
<td>Kevin Smeltz</td>
<td>Genetic Characterization of Bacterial Canker in Tomato</td>
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<td>Caroline Steingard</td>
<td>Investigation of Polyclonal <em>Vibrio fischeri</em> Infections within the Squid Light Organ</td>
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<td>Sydney Stewart</td>
<td>Determining Redox Properties of Fe(II) and Geothite to Predict Reactivity with Environmental Contaminants</td>
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<td>13</td>
<td>Miranda Stockton</td>
<td>Potential Role of Polyphosphate-accumulating Organisms in Regulating Phosphorus Mobility in Sand Environments Subject to Aerobic/anaerobic Cycles</td>
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<td>Hunter Swisher</td>
<td>Exploring the Potential Mycorrhizal Interaction between <em>Morchella</em> and Associated tree Species in Central Pennsylvania</td>
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<td>Xiaoyu Wang</td>
<td>iTRAQ-based Quantitative Proteomic Analysis Reveals New Metabolic Pathways Responding to Chilling Stress in Maize Seedlings</td>
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<td>16</td>
<td>Allena Wilson</td>
<td>Field Measurements of Wet and Dry Deposition</td>
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<td>Boya Xiong</td>
<td>The Impact of Slickwater Fracturing Fluid Composition and Shale Interactions on Membrane Fouling of Flowback Water</td>
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<td>Juanli Zhu</td>
<td>Land Use and Hydrologic Drivers of Atrazine Presence in Drinking Water Sources</td>
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