

# POSTER SESSION 1: 9:30 – 10:30 A.M.

#	STUDENT RESEARCHER	PROJECT TITLE	ADVISOR	DEPARTMENT
1	Apple J. Amos	Lab on a Chip: Early Cancer Detection Using Anion Exchange Membranes in Microfluidic Devices	Dr. Satyajyoti Senapati	Chemical and Biomolecular Engineering
2	Bowen Ashenfelter	Mapping of Lead Levels within the South Bend Community	Dr. Marya Lieberman	Chemistry and Biochemistry
3	Citlali Gutierrez	From the Field: Development of a Reliable and Affordable Home Lead Test Kit	Dr. Heidi Beidinger	Biological Sciences
4	Samantha O'Connor	Optimization of antimicrobial activity of truncated linear variants of enterocin AS-48	Dr. Shaun Lee	Biological Sciences
5	Andrew Pendergast	A low-cost 3D-printed electrophoretic method for proteomics sample preparation	Dr. Matthew Champion	Chemistry and Biochemistry
6	Kyle Smith	Phosphate Detection Using Yeast Produced CO <sub>2</sub>	Dr. Holly Goodson	Chemistry and Biochemistry
7	Kyle Barrentine	Can personality influence how you manage a social network?	Dr. David Hachen	Sociology
8	Abigail Boatwright	An Analysis of Intellectual Property Diffusion in Global Markets	Dr. Paul Brenner	Economics
9	Carl Colglazier	Advancing the Tools for Global-Scale Computational Social Science.	Dr. Paul Brenner	Computer Science and Engineering
10	Anne Freeman	Developing Software to Process Malaria Genetic Data for QTL Analysis in a Shared Parent Genetic Cross	Dr. Michael Ferdig	Biological Sciences
11	Jacob Gersfeld	SNP Isolation and Primer Design in R. pomonella	Dr. Jeffrey Feder	Biological Sciences
12	Eric Gronda	Visual Analytics of Student Clickstream Data Using Higher Order Networks	Dr. Chaoli Wang	Computer Science and Engineering
13	Allie Johnston	Are all Personality Inventories Equal? Assessing the Applicability of the BFI-2 to Adolescents	Dr. Ying (Alison) Cheng	Psychological and Educational Measurement Lab
14	Khaya Klanot	Deep Learning for Particle Physics: Investigating Neural Network Structure and Hyperparameters	Dr. Kevin Lannon	Physics
15	Luke Onken	Utilizing a Bayesian Point Process Model to Predict Forest Fires from Charcoal Data	Dr. Jason McLachlan	Biological Sciences
16	Kang Pu	Knowledge Diffusion in the Global Automotive Industry	Dr. Paul Brenner	Computer Science and Engineering
17	Qimin Zhang	Reduction of Resources Consumption in Parallel Applications Using a Density-based Clustering Model	Dr. Douglas Thain	Computer Science and Engineering
18	Kortni Dubose	Internal Representations of Interparental Conflict and Withdrawn/Depressed Symptoms: The Moderating Role of Mother-Adolescent Attachment	Dr. E. Mark Cummings	Psychology
19	Lizbeth Lucero	Infant and Child Mortality Rates and the Role of Female Education: A Meta-Analysis of Statistically Significant and Insignificant Research	Dr. Erin McDonnell	Sociology

20	Christopher Monjaras	The Effects of Mandatory Retirement on Employee Health Outcomes	Dr. William Evans	Economics
21	Allen Porterie	Performing Black Masculinity	Dr. Mark Sanders	English
22	Victor M. Rey Davila	Light Activated Synthesis of Au Nanoplates	Dr. Svetlana Neretina	Aerospace and Mechanical Engineering
23	Jonathan Austin, Breanna Belz, Angel Rodriguez	Feasibility of Vehicle-Wake Energy Extraction by Roadside Wind Turbines	Dr. Eric Matlis	Aerospace and Mechanical Engineering
24	Hunter Allen	VASP Calculations and Reactor Design for Ethylene Oligomerization	Dr. Jason Hicks, Dr. William Schneider	Chemical and Biomolecular Engineering
25	Tyler Bear	Synthesis and characterization of iptycene-based polyimides with tunable chain rigidity for gas separation membranes	Dr. Ruilan Guo	Chemical and Biomolecular Engineering
26	Gabriel Brown	Development and Characterization of Plasma Catalytic Reactors	Dr. David B. Go	Aerospace and Mechanical Engineering
27	Anthony Deziel	Synthesis and Characterization of Platinum (II) Carbene Complexes	Dr. Vlad Iluc	Chemistry and Biochemistry
28	Ana Martinez	Coordination Chemistry of the Human Copper Transporter	Dr. Kathryn Haas	Chemistry
29	Madison Mettey	Synthesis of transition metal alumosiloxide complexes as models of zeolite active sites for energy-related catalysis	Dr. Emily Tsui	Chemistry and Biochemistry
30	Lee Ngochi	Synthesis of Nickel Phosphide on Aluminum Oxide	Dr. Jason Hicks, Dr. William Schneider	Chemical and Biomolecular Engineering
31	Aaron Roe	Computational Identification of Anharmonic Vibrational Frequencies for Brønsted Acid Sites in Aluminum Substituted Chabazite	Dr. William Schneider	Chemical and Biomolecular Engineering
32	Santiago Calderon Novoa	Synthesis and performance testing of pentiptycene-based polymeric membranes for mixed gas separation	Dr. Ruilan Guo	Chemical and Biomolecular Engineering
33	Brizzia Munoz Robles	Targeting therapeutics through supramolecular affinity	Dr. Matthew Webber	Chemical and Biomolecular Engineering
34	Jacob Galden, Paula Murphy	Stretchable Polymer Composite Film with Extreme Ductility and Toughness	Dr. Tengfei Luo	Aerospace and Mechanical Engineering
35	Stephen Bauer, Mark Etzelmuller	Development of Microimplants for Deep Tissue Optical Sensing	Dr. Thomas O'Sullivan	Electrical Engineering
36	Emma Conroy, Nicole Nemeth	Extra-pair Parentage in Field Sparrows ( <i>Spizella pusilla</i> )	Dr. Joel Ralston	Biology
37	Maria Escobedo	Modeling Equilibrium Reactions with Origin	Dr. Kristin Kuter	Mathematics and Computer Science
38	Kerrie Koller, Kailey Novack	Creating a Catalog for Albendazole Paper Analytical Devices	Dr. Ian Bentley	Chemistry, Physics
39	Hannah Himes	Quantifying the Relationship between the Gut Microbiome and Blastocystis in Long-tailed Macaques	Dr. Hope Hollocher	Biological Sciences

<b>40</b>	Chloe Crusan	RadioHound: A low cost spectrum sensor	Dr. Bertrand Hochwald	Electrical Engineering
<b>41</b>	Tristen Lewandowski	Programmable and Reconfigurable Millimeter-Wave Circuits and Antennas	Dr. Jonathan Chisum	Electrical Engineering
<b>42</b>	Adrian Siwy	Optically-Controlled Tunable Microwave and Millimeter-Wave Devices for Adaptive Wireless Communications	Dr. Lei Liu	Electrical Engineering
<b>43</b>	Spencer Spitz	Passive, Crowd-Sourced WiFi Characterization	Dr. Aaron Striegel	Computer Science and Engineering
<b>44</b>	Margaret Bielski	An Analysis of Lead in Local Roads, Homes and Historical Industries: How South Bend's History is Poisoning its Children	Dr. Marya Lieberman	Chemistry and Biochemistry