Schedule of Events

Conference Check-in and Registration 7:30AM – 11:30AM
Skylight Lobby, Student Union

Oral Presentations, Morning Sessions 9AM – 11:20AM
Endeavor Rooms(156) A,B,C,
Atlantis Room(157),
Discover Rooms A,B)

Welcome 11:20AM
Robert E. W. Fyffe, Ph.D.
Wright State University Vice President for Research
Apollo Room

Poster Presentations and Lunch 11:40AM – 1:30PM
Skylight Lobby and Apollo Room

Oral Presentations, Afternoon Sessions 9AM – 11:20AM
Endeavor Rooms(156) A,B,C,
Atlantis Room(157),
Discover Rooms A,B)
Session Moderators

Norma Adragna-Lauf, Ph.D.

K. T. Arasu, Ph.D.

Marie Bashaw, Ph.D.

Caroline Cao, Ph.D.

Jason Deibel, Ph.D.

Rosemary Eustace, Ph.D.

Katherine Excoffon, Ph.D.

Subhashini Ganapathy, Ph.D.

Junghsen Lieh, Ph.D.

Laura Luehrmann, Ph.D.

Thank You!
<table>
<thead>
<tr>
<th>Student</th>
<th>Faculty Mentor</th>
<th>Department</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Irfan Dar</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Brain segmentation and analysis of neonates with dysphagia</em></td>
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<td>9:00</td>
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<tr>
<td>Chirag Limbachia</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Functional Magnetic Resonance Imaging of Convergence Eye Movements</em></td>
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<td>9:20</td>
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<tr>
<td>Mohd Usmani</td>
<td>Nasser Kashou, Ion Juvina</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Functional Magnetic Resonance Imaging (fMRI) for predicting performance based on Visual Object Recognition Task</em></td>
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<td>9:40</td>
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<tr>
<td>Brenna Giacherio</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Is fNIRS Ready for Use in Clinical Ophthalmology?</em></td>
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<td>10:00</td>
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<tr>
<td>Travis Goettemoeller</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Investigating Structural Correlates of Idiopathic Infantile Nystagmus Syndrome using MRI-Based Brain Volumetrics</em></td>
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<td>10:20</td>
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<tr>
<td>Ali Kadhim</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Volumetric Analysis of Hydrocephalus Patients in Pediatrics</em></td>
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<td>10:40</td>
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<tr>
<td>Emma Sum</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/Human Factors Engineering</td>
<td><em>Near-Infrared Spectroscopy Device for Imaging the Breast</em></td>
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<td>11:00</td>
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<tr>
<td>Angelica Zampini</td>
<td>Nasser Kashou</td>
<td>Biomedical, Industrial/</td>
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<td>Title:</td>
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<td><strong>Diffusion Tensor Imaging</strong></td>
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<td><strong>and Segmentation for Infantile Nystagmus</strong></td>
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<td>Anthony Vicini</td>
<td>Tarun Goswami</td>
<td>Biomedical, Industrial/</td>
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<td>Title:</td>
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<td><strong>Skull Fracture in Head Impacts</strong></td>
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<td>Lucas Stork</td>
<td>Thomas Hangartner</td>
<td>Biomedical, Industrial/</td>
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<td>Megan Markl</td>
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<td>Human Factors Engineering</td>
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<td>Katherine Gamber</td>
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<td>Amena Shermadou</td>
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<td>Title:</td>
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<td><strong>Low-Cost Digital X-ray Image Receptor Design</strong></td>
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<td>Kushal Abhyankar</td>
<td>Subhashini Ganapathy</td>
<td>Biomedical, Industrial/</td>
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<td>Title:</td>
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<td>Human Factors Engineering</td>
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<td>Title:</td>
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<td><strong>Model-Based Approach to Understand and Develop Technology-Enhanced System for Engineering Education</strong></td>
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<td>Yiman Lou</td>
<td>Caroline Cao</td>
<td>Biomedical, Industrial/</td>
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<td>Human Factors Engineering</td>
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<td>Title:</td>
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<td><strong>Supporting Procedural and Perceptual Learning in Laparoscopic Surgery</strong></td>
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<tr>
<td>Robert Johnson</td>
<td>Yongjie Xu</td>
<td>Biochemistry/Molecular</td>
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<td>Title:</td>
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<td>Biology</td>
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<td>Title:</td>
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<td><strong>Western Blotting and Its Application to the Study of DNA Replication Checkpoints</strong></td>
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<td>Tasha Hester</td>
<td>Labib Rouhana</td>
<td>Biological Sciences</td>
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<tr>
<td>Title:</td>
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<td><strong>Expression and Function of Genes Involved in Spermatogenesis in the planarian Schmidtea mediterranea</strong></td>
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# Morning Session 3 E156C

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<thead>
<tr>
<th>Student</th>
<th>Faculty Mentor</th>
<th>Department</th>
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<tbody>
<tr>
<td>Lauren Shafer</td>
<td>Lynn Hartzler</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>9:00</strong></td>
<td><strong>Title:</strong> Effects of Hypoxia and Hypercapnia on <em>Cambarus bartonii cavatus</em></td>
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<tr>
<td>Jonathan Bowers</td>
<td>Katherine Excoffon</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>9:20</strong></td>
<td><strong>Title:</strong> TALEN-based genome editing to knock out the apical isoform of the coxsackievirus and adenovirus receptor and block apical adenovirus entry into polarized epithelia</td>
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<tr>
<td>Mahmoud Alghamri</td>
<td>Katherine Excoffon, Ph.D.</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>9:40</strong></td>
<td><strong>Title:</strong> Apical Coxsackievirus and Adenovirus Receptor (CAR) Expression is Highly Regulated in Polarized Cells</td>
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<tr>
<td>Joseph Santin</td>
<td>Lynn Hartzler</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>10:00</strong></td>
<td><strong>Title:</strong> Inhibition of a hyperpolarization-activated inward current (Ih) facilitates cold-activation of locus coeruleus neurons of bullfrogs, <em>Lithobates catesbeianus</em></td>
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<tr>
<td>Sahar Kamel</td>
<td>Katherine Excoffon, Ph.D.</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>10:20</strong></td>
<td><strong>Title:</strong> Adeno-Associated Virus Transduction of Human CD4+T Lymphocytes</td>
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<tr>
<td>Sara Seibert</td>
<td>Scott E. Baird</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>10:40</strong></td>
<td><strong>Title:</strong> Assortative Fertilization in the Elegans-Group of <em>Caenorhabditis</em></td>
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<tr>
<td>Trisha Brockman</td>
<td>Katherine Excoffon</td>
<td>Biological Sciences</td>
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<tr>
<td><strong>11:00</strong></td>
<td><strong>Title:</strong> Src-family kinases do not affect apical expression of the coxsackie and adenovirus receptor in polarized epithelial cells</td>
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<td>Thijs Gerritsen</td>
<td>Kenneth Turnbull</td>
<td>Chemistry</td>
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<td><strong>9:00</strong></td>
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<tr>
<td><em>Title: The Reaction of 3-Phenyl Sydnone with Bromine in Acetic Anhydride: A Reinvestigation</em></td>
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<td>Kevin Dorney</td>
<td>Ioana E. P. Sizemore</td>
<td>Chemistry</td>
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<td><strong>9:20</strong></td>
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<td><em>Title: Intracellular Distribution and Fate of Chelerythrine, a Putative NKA/NKP Inhibitor, in Lens Epithelial Cells Probed via Surface-Enhanced Raman Spectroscopy</em></td>
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<tr>
<td>Pramod Anantharam</td>
<td>T. K. Prasad</td>
<td>Computer Science</td>
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<td><strong>9:40</strong></td>
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<tr>
<td><em>Title: Extracting City Events from Social Streams</em></td>
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<tr>
<td>Kyle Bayes</td>
<td>Pascal Hitzler</td>
<td>Computer Science</td>
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<td><strong>10:00</strong></td>
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<td><em>Title: Adding More Expressivity to Horn Description Logics</em></td>
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<tr>
<td>Joseph Strzelecki</td>
<td>saiyu Ren</td>
<td>Electrical Engineer</td>
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<td><strong>10:20</strong></td>
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<td><em>Title: Design and Optimization of a Phase Frequency Detector in 90nm CMOS</em></td>
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<td>Naga Venkata Vijaya</td>
<td>Dr. Saiyu Ren</td>
<td>Electrical Engineer</td>
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<td>Krishna Boppana</td>
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<td><strong>10:40</strong></td>
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<td><em>Title: Impact of interconnections on performance of RF designs</em></td>
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<td>Kyle Bayes</td>
<td>K.T. Arasu</td>
<td>Mathematics and Statistics</td>
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<td><em>Title: Showing Nonexistence of Certain Circulant Weighting Matrices</em></td>
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<tr>
<td>Hamza Abdel-Latif</td>
<td>KT Arasu</td>
<td>Mathematics</td>
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<td><strong>9:00</strong></td>
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<td><strong>Title: Balanced perfect sequences of even period</strong></td>
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<td>Jacob Erickson</td>
<td>K.T. Arasu</td>
<td>Mathematics</td>
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<td><strong>9:20</strong></td>
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<td><strong>Title: Entropy Optimal Orthogonal Matrices</strong></td>
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<td>Aouatef Chihi</td>
<td>Sherif Elbasiouny</td>
<td>Neuroscience, Cell Biology/Physiology</td>
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<td><strong>9:40</strong></td>
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<td><strong>Title: Changes in C-bouton synapses during ALS progression</strong></td>
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<tr>
<td>Basia Galinski</td>
<td>Sherif Elbasiouny</td>
<td>Neuroscience, Cell Biology/Physiology</td>
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<td><strong>10:00</strong></td>
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<td><strong>Title: The effect of SK channel modulation on survival and motor performance of ALS mice</strong></td>
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<td>Darci Gallimore</td>
<td>Dragana Claflin</td>
<td>Psychology</td>
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<td><strong>10:20</strong></td>
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<td><strong>Title: Social Buffering and its Effects on Subsequent Learning</strong></td>
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<td>Naga Lakshmi Kaulini</td>
<td>Courtney Sulentic</td>
<td>Pharmacology/Toxicology</td>
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<td><strong>10:40</strong></td>
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<td><strong>Title: Effect of TCDD on Immunoglobulin Class Switching</strong></td>
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<td>Bassam Kashgari</td>
<td>Courtney Sulentic</td>
<td>Pharmacology and Toxicology</td>
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<td><strong>11:00</strong></td>
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<td><strong>Title: The Mechanism of Aryl Hydrocarbon Receptor In The Human Immunoglobulin Heavy Chain.</strong></td>
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<td>9:00</td>
<td>Elucidating the role of the polymorphic human hs1,2 enhancer in the effects of TCDD</td>
<td>Abdullah Freiwan</td>
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<td>9:20</td>
<td>The effects of exercise and metformin on monoamine activity in db/db mice</td>
<td>Marie Heis</td>
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<td>9:40</td>
<td>Functional expression of KCC3 in Human Embryonic Kidney (HEK-293) Cells</td>
<td>Nagendra Babu Ravilla</td>
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<td>10:00</td>
<td>TCDD-induced Activation of the Human Igh hs1,2 Enhancer is Not Altered by Mutation of Transcription Factor Binding Sites Within the Polymorphic Region</td>
<td>Andrew Snyder</td>
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<td>10:40</td>
<td>Military Research and Developmental effects on Foreign Policy</td>
<td>James Agee</td>
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<td>11:00</td>
<td>Kutembea Na Askari: Reflections of Wright State’s Student-Led Civil Rights Pilgrimage</td>
<td>Michael Tyler</td>
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POSTER SESSION
11:30 – 1:30
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<th>Student</th>
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<tbody>
<tr>
<td>Will Davis</td>
<td>Marjorie McLellan</td>
<td>Masters Program in Humanities</td>
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<td>1:45 Radio Waves</td>
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<tr>
<td>Wesley Hannebaum</td>
<td>Lisa Smithers</td>
<td>College of Nursing and Health</td>
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<tr>
<td>2:05 The Role of the Nurse in Family Coping After Miscarriage</td>
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<td>Garrett Teets</td>
<td>Laura Luehrmann</td>
<td>Political Science</td>
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<td>2:25 Sino-U.S. Relations: Equilibrium in the Asia-Pacific</td>
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<tr>
<td>Ashley Hartlaub</td>
<td>Sarah Twill</td>
<td>Social Work</td>
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<td>2:45 Changes to the Social Work Curriculum Since 2008</td>
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<td>Louis Agresta,</td>
<td>Myron Levine</td>
<td>Urban Affairs</td>
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<td>David Burns</td>
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<td>3:05 Corporate Sponsorship at the Local Government Level</td>
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Poster Presentations
Phospholipids of Rhodobacter Sphaeroides Cytochrome C Oxidase Affects the Flexibility of the Enzyme
Student Presenter(s): Khadijeh Alnajjar, Graduate Student in Biological Sciences
Faculty Mentor: Lawrence Prochaska, Ph.D.
Department: Biochemistry & Molecular Biology

The Use of an In Vitro Simulator for Modeling Human Gut Microbiota
Student Presenter(s): Harvey Anu, Graduate Student in Pharmocolgoy & Toxicology
Faculty Mentor: Oleg Paliy, Ph.D.
Department: Biochemistry & Molecular Biology

Microsatellite Stabilization by FANC J Helicase
Student Presenter(s): Joanna Barthelemy, Graduate Student in Biomedical Sciences
Faculty Mentor: Michael Leffak, Ph.D.
Department: Biochemistry & Molecular Biology

Fatty Acids and their Thioester Derivatives as Potential Endogenous Ligands of LXR alpha
Student Presenter(s): Shimpi Bedi, Graduate Student in Biomedical Sciences
Faculty Mentor: Heather A. Hostetler, Ph.D.
Department: Biochemistry & Molecular Biology

ΔNp63α Repress Nuclear Translocation of PTEN by Inhibition of NEDD4-1 in Keratinocytes
Student Presenter(s): Natasha Hill, Graduate Student in Biomedical Sciences
Faculty Mentor: Madhavi Kadakia, Ph.D.
Department: Biochemistry & Molecular Biology

Western Blotting and its Applications to the Study of the Signaling Pathway of the DNA Replication Checkpoint in Fission Yeast
Student Presenter(s): Robert Johnson, Undergraduate Student in Chemistry
Faculty Mentor: Yong-jie Xu, Ph.D.
Department: Biochemistry & Molecular Biology
Endogenous Ligand Binding Profile of Full-Length Human PPAR Alpha in Comparison to Murine PPAR Alpha

Student Presenter(s): Dhawal Oswal, Graduate Student in Biomedical Sciences
Faculty Mentor: Heather A. Hostetler, Ph.D.
Department: Biochemistry & Molecular Biology

Biological Sciences

Apical Coxsackievirus and Adenovirus Receptor (CAR) Expression is Highly Regulated in Polarized Cells

Student Presenter(s): Mahmoud Alghamri, Graduate Student in Biomedical Sciences
Faculty Mentor: Katherine Excoffon, Ph.D.
Department: Biological Sciences

Accurate Splicing of HDAC6 Transcripts Requires Son

Student Presenter(s): Vishnu Priya Chowdary Battini, Graduate Student in Biological Sciences
Faculty Mentor: Paula Bubulya, Ph.D.
Department: Biological Sciences

Transduction of Adipose Derived Stem Cells with Adeno-Associated Virus

Student Presenter(s): Shon Jergens, Undergraduate Student in Clinical Laboratory Science
Faculty Mentor: Katherine Excoffon, Ph.D.
Department: Biological Sciences

On the Specialization of Tooth Morphology in Early Cladodont Sharks

Student Presenter(s): Madelyn Jones, Undergraduate Student in Biological Sciences
Faculty Mentor: Stephen Jacquemin, Ph.D.
Department: Biological Sciences

The Coxsackievirus and adenovirus receptor (CAR) mediates neutrophil adhesion on the epithelial cell surface. Adeno-Associated Virus Transduction of Human CD4+T Lymphocytes

Student Presenter(s): Poornima Kotha Lakshmi Narayan
Graduate Student in Microbiology & Immunology
Faculty Mentor: Katherine Excoffon, Ph.D.
Department: Biological Sciences
Wnt/β-Catenin Signaling Modulates Coxsackievirus and adenovirus receptor (CAR) expression and adenoviral infectivity in human airway epithelial cells
Student Presenter(s): 
Priyanka Sharma, Graduate Student in Microbiology & Immunology
Faculty Mentor: Katherine Excoffon, Ph.D.
Department: Biological Sciences

Interaction of Son with a Heterochromatic Transgene Array
Student Presenter(s): 
Jennifer Pence, Graduate Student in Biological Sciences
Faculty Mentor: Paula Bubulya, Ph.D.
Department: Biological Sciences

Analysis of Switchgrass and Corn Stover Hydrolysate Fermentations for Feedstock Comparison
Student Presenter(s): Grace Klinger, Undergraduate Student in Biological Sciences
Faculty Mentor: Yaoping Zhang, Ph.D. Great Lakes Bioenergy Research Center (University of Wisconsin – Madison) and Gerald Alter, Ph.D. (Wright State University)
Department: Biological Sciences

Male Specific Lethality in F1 Hybrids of Caenorhabditis
Student Presenter(s): 
Vaishnavi Ragavapuram, Graduate Student in Biological Sciences, and Scott Baird, Ph.D.
Faculty Mentor: Scott Baird, Ph.D.
Department: Biological Sciences

Host Plant Limitations in Two Species of Andean Altinote Butterflies
Student Presenter(s): 
Karen Pedersen, Graduate Student in Biological Sciences
Faculty Mentor: John Stireman, Ph.D.
Department: Biological Sciences

White-Tailed Deer Alter Spider Communities through Direct and Indirect Mechanisms
Student Presenter(s): 
Elizabeth Sancomb, Graduate Student in Biological Sciences
Faculty Mentor: Thomas P. Rooney, Ph.D.
Department: Biological Sciences
Tooth Morphology Provides Evidence of ancestral Megalodon Shark Linage
Student Presenter(s): **Suzanna Wint**, Undergraduate Student in Earth and Environmental Sciences
Faculty Mentor: Stephen Jacquemin, Ph.D., and Chuck Ciampaglio, Ph.D.
Department: Biological Sciences

Chemosensitive Locus Coeruleus Neurons in the Savannah Monitor Lizard, Varanus Exanthematicus
Student Presenter(s): **Lucas Zena**, Graduate Student in Biomedical Sciences
Faculty Mentor: Lynn Hartzler, Ph.D.
Department: Biological Sciences

**Biomedical and Industrial Engineering**

Process Control in Data Entry Devices
Student Presenter(s): **Alexandra Comer**, Undergraduate Student in Industrial and Systems Engineering
Faculty Mentor: Subhashini Ganapathy, Ph.D.
Department: Biomedical & Human Factors Engineering

Vibrotactile Feedback and Stochastic Resonance in a Laparoscopic Probing Task
Student Presenter(s): **Robert Hoskins**, Graduate Student in Industrial & Human Factors Engineering
Faculty Mentor: Caroline Cao, Ph.D.
Department: Biomedical & Human Factors Engineering

Computer Aided Diagnostic for Surgeons: Using Kinect in Laparoscopic Surgery
Student Presenter(s): **Mohammadreza Maddah**, Graduate Student in Engineering
Faculty Mentor: Nasser Kashou, Ph.D.
Department: Biomedical & Human Factors Engineering

Information Presentation on Mobile Devices for Small Form Factors
Student Presenter(s): **Raghavendra Rao Polakonda**, Graduate Student in Human Factors & Industrial Engineering and Organizational Psychology
Faculty Mentor: Subhashini Ganapathy, Ph.D.
Department: Biomedical & Human Factors Engineering
“Yelling will not make me learn better!”
Student Presenter(s): 
**Nataliya Pyatka**, Graduate Student in Medicine
Faculty Mentor: Caroline Cao, Ph.D.
Department: Biomedical & Human Factors Engineering

Develop a Computer-Aided Tool for Visualization of the Abdomen during Insufflation
Student Presenter(s): 
**Zohreh Tavakkoli**, Graduate Student in Biomedical Engineering
Faculty Mentor: Nasser Kashou, Ph.D.
and Caroline Cao, Ph.D.
Department: Biomedical & Human Factors Engineering

**Chemistry**

Effect of Alkyl Chain Length on the Thermal Properties of Poly(arylene ether)s Derived From N-Alkyl-N-Phenyl-3,5-Difluorobenzene Sulfonamides
Student Presenter(s): 
**Marina Andrejevic**, Graduate Student in Chemistry
Faculty Mentor: Eric Fossum, Ph.D.
Department: Chemistry

Aryl Alkoxy Polyethers
Student Presenter(s): 
**Juraj Drzic**, Graduate Student in Chemistry
Faculty Mentor: William Feld, Ph.D.
Department: Chemistry

Synthesis of Main Chain Alkoxy Substituted DP-PPV
Student Presenter(s): 
**Jeremy Lear**, Graduate Student in Chemistry
Faculty Mentor: William Feld, Ph.D.
Department: Chemistry

Synthesis of a Haplomyrtin Precursor from a TIPS Protected Intermediate
Student Presenter(s): 
**Bram Spierenburg**, Undergraduate Student in Chemistry
Faculty Mentor: William Feld, Ph.D.
Department: Chemistry

Oxyalkylene Linked Polyimide with Aromatic Subunits
Student Presenter(s): 
**Kristy Wickman**, Graduate Student in Chemistry
Faculty Mentor: William Feld, Ph.D.
Department: Chemistry
College of Nursing and Health

Postoperative Pain Management in Adult Knee Arthroplasty Patients
Student Presenter(s): Stephanie Isaac-Francis, Graduate Student in Nursing
Faculty Mentor: Patricia Martin, Ph.D.
Department: College of Nursing and Health

Development and Testing of an Educational Intervention to Increase Knowledge of STI & HIV/AIDS Prevention among Low Risk Pregnant Women: The Project TO-R-CH
Student Presenter(s): Pratibha Nigam, Undergraduate Student in Nursing
Faculty Mentor: Rosemary Eustace, Ph.D., CFLE, PHCNS-BC, RN and Rosalie Mainous PhD, APRN, NNP-BC
Department: College of Nursing and Health

Computer Science

KHealth
Student Presenter(s): Surendra Brahma Marupudi, Graduate Student in Computer Science
Faculty Mentor: Amit Sheth, Ph.D.
Department: Computer Science

Leadership Studies

Third Grade Reading Guarantee- A Case Study
Student Presenter(s): Adrija Chatterjee, Graduate Student in Clinical Psychology
Faculty Mentor: Suzanne Franco, Ph.D.
Department: Leadership Studies

Student Growth Measures for Teacher and Principal Evaluations
Student Presenter(s): Allison Mueller, Graduate Student in Counseling
Faculty Mentor: Suzanne Franco, Ph.D.
Department: Leadership Studies
**Marketing**

An Empirical Study of Consumers’ Attitudes and Behaviors Toward Showrooming
Student Presenter(s): **Hanna Ranly**, Undergraduate Student
Faculty Mentor: Pola Gupta, Ph.D.
Department: Marketing

**Neuroscience, Cell Biology and Physiology**

Placental-Specific Prolonged Activity of Hypoxia-Inducible Factor 1 alpha (HIF-1α): A Mouse Model of Preeclampsia
Student Presenter(s): **Renee Albers**, Graduate Student in Biological Sciences
Faculty Mentor: Thomas L. Brown, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

AMPK Knockdown in Placental Trophoblast Cells Results in Altered Morphology and Function
Student Presenter(s): **Renee Albers**, Graduate Student in Biological Sciences
Faculty Mentor: Thomas L. Brown, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Anatomical Investigations of Saphenous Nerve Afferent Terminations in the Postnatal Mouse Spinal Cord
Student Presenter(s): **Marisela Dallman**, Graduate Student
Faculty Mentor: David Ladle, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Na+ Entry Through TRPM7 Channels
Student Presenter(s): **Siham Hourani**, Graduate Student
Faculty Mentor: Juliusz Ashot Kozak, Ph.D.
Department: Neuroscience, Cell Biology and Physiology
Site Directed Mutagenesis of a Lentiviral NdeI Restriction Site
Student Presenter(s): Kirsten Jacobson, Graduate Student
Faculty Mentor: Thomas L. Brown, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Stroke Physical Rehabilitation: Impact on Motor Functional Recovery in Drug Treated Versus Vehicle Treated Rats
Student Presenter(s): Moner Ragas, Graduate Student in Biological Sciences
Faculty Mentor: Adrian M. Corbett, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Lentiviral Gene Targeting
Student Presenter(s): Melissa Sands, Undergraduate Student
Faculty Mentor: Thomas L. Brown, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Prolonged Expression of Hypoxia-Inducible Factor 1 alpha (HIF-1α) in the Placenta Leads to Placental Abnormalities
Student Presenter(s): Melissa Sands, Undergraduate Student
Faculty Mentor: Thomas L. Brown, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Channelopathy Contributes to Proprioceptive Deficits Following Chemotherapy
Student Presenter(s): Krystyna Wieczerzak, Graduate Student
Faculty Mentor: Timothy C. Cope, Ph.D.
Department: Neuroscience, Cell Biology and Physiology

Pharmacology and Toxicology

Role of AT1a Receptor in 2K1C Model of Renovascular Hypertension and its Impact on Renal Neprilysin (NEP) Protein Expression
Student Presenter(s): Laale Alawi, Graduate Student in Pharmacology and Toxicology
Faculty Mentor: Khalid Elased, Ph.D.
Department: Pharmacology and Toxicology
Effect of Rosiglitazone on Renal and Urinary Neprilysin (NEP) in db/db Diabetic Mice
Student Presenter(s): **Sana Emberesh**, Graduate Student in Pharmacology and Toxicology
Faculty Mentor: Khalid Elased, Ph.D.
Department: Pharmacology and Toxicology

Increased Urinary Angiotensin Converting Enzyme 2 (ACE2) in Diabetic patients with CKD
Student Presenter(s): **Sridevi Gutta**, Graduate Student in Pharmacology and Toxicology
Faculty Mentor: Khalid Elased, Ph.D.
Department: Pharmacology and Toxicology

Use of Hair Follicles as a Non-invasive Sampling Technique for Genotyping for ACE2 and AT1R Knockout Mice
Student Presenter(s): **Lesan Mattis**, Graduate Student
Faculty Mentor: Khalid Elased, Ph.D.
Department: Pharmacology and Toxicology

Apelin Regulation of Potassium Chloride Cotransport (KCC) in Vascular Smooth Muscle Cells (VSMCs): Relation to Cardiovascular Disease (CVD) Student Presenter(s): **Neelima Sharma**, Graduate Student in Biomedical Sciences
Faculty Mentor: Norma Adragna-Lauf, Ph.D.
Department: Pharmacology and Toxicology

**Political Science**

How has reform affected Kerala’s caste system?
Student Presenter(s): **Brian Storch**
Faculty Mentor: Pramod Kantha, Ph.D.
Department: Political Science

Unity or Rivalry? The Role of Identity in European Integration
Student Presenter(s): **Caitlyn Banis**, Graduate Student in International and Comparative Politics
Faculty Mentor: Liam Anderson, Ph.D.
Department: Political Science
Threat Perceptions and National Power: Explaining China's Rise
Student Presenter(s): **Christopher Dias**, Graduate Student in International and Comparative Politics
Faculty Mentor: Laura Luehrmann, Ph.D
Department: Political Science

The Chinese and African Relationship: Oil Interests, Economic Growth, and the Trifecta
Student Presenter(s): **Devin Faggs**, Undergraduate Student in Political Science
Faculty Mentor: Laura Luehrmann, Ph.D.
Department: Political Science

How Does Rivalry Impact Soft Power?: China’s Utilization of Soft Power Among Rival States
Student Presenter(s): **Martin Kalfas**, Graduate Student in International and Comparative Studies
Faculty Mentor: Laura Luehrmann, Ph.D.
Department: Political Science

Regional Organizations: Tools of the Powerful for Peace?
Student Presenter(s): **Kraig Reiber**, Graduate Student in International and Comparative Studies
Faculty Mentor: December Green, Ph.D.
Department: Political Science

The Rise and Decline of International Adoption from China
Student Presenter(s): **Paula Sloas**, Undergraduate Student in International Studies
Faculty Mentor: Laura Luehrmann, Ph.D.
Department: Political Science

Recognizing Historical Memory and its Implications toward Nationalism; Case Studies in East Asia
Student Presenter(s): **Hannah Collins**, Graduate Student in International and Comparative Politics
Faculty Mentor: Laura Luehrmann, Ph.D.
Department: Political Science
Student Presenter(s): Kuyer Fazekas, Graduate Student in International and Comparative Studies
Faculty Mentor: Vaughn Shannon, Ph.D.
Department: Political Science

Influence on Domestic Policy: The Case of China
Student Presenter(s): Sarah Matos, Undergraduate Student in International Studies
Faculty Mentor: Laura Luehrmann, Ph.D. Department: Political Science

Predicting Workplace Interactions: Counterproductive Work Behaviors, Interpersonal Relationships and Select Big Five Traits
Student Presenter(s): Sarah McLaughlin, Undergraduate Student in Psychology
Faculty Mentor: Gary Burns, Ph.D. Department: Psychology

Public Health
The Socioeconomic Status of Adolescent Mothers and its Relationship to Prenatal Care and Fetal Health in Franklin County, Ohio
Student Presenter(s): Christen Johnson, Medical Student and Graduate Student in Public Health
Faculty Mentor: Sara Paton, Ph.D. Department: Community Health

Teacher Education
The Socioeconomic Status of Adolescent Mothers and its Relationship to Prenatal Care and Fetal Health in Franklin County, Ohio
Student Presenter(s): Christen Johnson, Medical Student and Graduate Student in Public Health
Faculty Mentor: Sara Paton, PhD