

## Poster Presentations, University Center Ballroom

**9:30 – 11:30 a.m.**

**Manar Abdelkader** *Biological Sciences* **Poster # 50**  
“Analysis of Transposon Mobility and Identification of Additional gls Genes in *Volvox carteri*”  
**Professor Steve Miller, Advisor**

**Anthony Agyapong** *Biological Sciences* **Poster # 28**  
“Activity of Promoter Regions Critical in hZip1's Role in Prostate Cancer”  
**Professor Renty Franklin, Advisor**

**Haroon Ahmad** *Biochemistry & Molecular Biology* **Poster # 06**  
“High Pressure Anion-Exchange Chromatography of Carbohydrates”  
**Professor C. Allen Bush, Advisor**

**Caroline Andes** *Political Science* **Poster # 75**  
“Facebook Me: *The Facebook*<sup>TM</sup> and Social Capital”  
**Professor Carolyn Forestiere, Advisor**

**Olufolakemi Awe** *Biochemistry and Molecular Biology* **Poster # 68**  
“Investigation of the Interaction between RFX5 and CREB: Implications for the Regulation of MHC II Gene Expression”  
**Professor Colin Garvie, Advisor**

**William Becker** *Chemical Engineering* **Poster # 82**  
“Developing a Platform for the Detection of Beta Amyloid Protein, a Protein Associated with the Development of Senile Plaques Found in Alzheimer’s Disease”  
**Professor Theresa Good, Advisor**

**Christopher Bednarek** *Biological Sciences* **Poster # 42**  
“CR-nitA; the Synthesis of a Selectable Marker for *Volvox carteri* Transformations”  
**Professor Stephen Miller, Advisor**

**Caryn Bell** *Chemistry* **Poster # 60**  
“Development of a Novel Food Spoilage Sensor”  
**Professor William LaCourse, Advisor**

**Cally Brandt and Morgan Little** *Ancient Studies* **Poster # 18**  
“Curating a Museum Exhibit: The Glory in Ruins Display in the A.O.K. Library Rotunda, January 31- March 24, 2007”  
**Professor Richard Mason, Advisor**

- Jonathan Bryant-Genevier**     *Chemistry*     **Poster # 37**  
“Structural Analysis of RFX5 Dimerization Domain”  
**Professor Colin Garvie, Advisor**
- Ramon Cabrera**     *Biological Sciences*     **Poster # 35**  
“A Genetic Approach to Identify Targets of Ubiquitin Ligases from Animals and Plants”  
**Professor Mauricio Bustos, Advisor**
- Nancy Chiles**     *Biological Sciences*     **Poster # 71**  
“Sequencing the Melanopsin Gene from Bovine Retina”  
**Professor Phyllis Robinson, Advisor**
- Andrew Ciupek**     *Biochemistry and Molecular Biology*     **Poster # 74**  
“Analysis of Mutations in Ribosomal Proteins L4 and L22 in Spiramycin-Resistant *Deinococcus Radiodura*”  
**Professor Janice Zengel, Advisor**
- Luis Cocka**     *Chemistry*     **Poster # 70**  
“Synthesis of Carbocyclic Nucleoside Analogues as Potential Inhibitors of SAHase and Adenosine Deaminase”  
**Professor Katherine Seley-Radtke, Advisor**
- Ryan Connor and Khadijatour Njimoluh**     *Chemical Engineering*     **Poster # 56**  
“Analysis of HIV-1 SL4-U5 Binding Region”  
**Professor Michael Summers, Advisor**
- Sumita Das**     *Information Systems*     **Poster # 66**  
“Improving Software Maintenance Through Better Documentation”  
**Professor Carolyn Seaman, Advisor**
- Foyin Fasanmi**     *Biological Sciences*     **Poster # 85**  
“Comparison of Markers of Disease Severity in Patients with Sepsis and Matched Controls”  
**Professor Steven Johnson, Advisor**
- Adrian Feijoo**     *Biological Sciences*     **Poster # 79**  
“Phosphodiesterase 2-Labeled Atypical Glomeruli and Sensory Neurons in the Olfactory System”  
**Professor Weihong Lin, Advisor**
- Jenny Ficco and Stefanie Kirk**     *Psychology*     **Poster # 24**  
“The Reliability and Internal Consistency of the Revised Dyad Adjustment Scale For a Sample of Young Romantic Couples”  
**Professor Stanley Feldstein, Advisor**
- Ayanna Flegler**     *Biological Sciences*     **Poster # 16**

“Differential Gene Expression in Cultured Rodent Malaria Parasite”

**Professor Lasse Lindahl, Advisor**

**Jessica Folk**                      *Psychology*

**Poster # 15**

“Sex Differences in the Influence of Resting Blood Pressure, Pain Catastrophizing, and Fear of Pain Outcomes”

**Professor Lynanne McGuire, Advisor**

**Marcus Gillis**                      *Biological Sciences*

**Poster # 81**

“Parkinsonism Development in Cycad-Fed Rats”

**Professor Paul Yarowsky, Advisor**

**Crystal Healy**                      *Environmental Science*

**Poster # 27**

“The Interaction Between Resource Quality, Invertebrate Density and Microbial Contributions to Leaf Litter Decay in a Stream Food Web”

**Professor Christopher Swan, Advisor**

**Albert Hsu**                      *Computer Engineering*

**Poster # 93**

“Cost Effective Wireless Sensor Network for Environmental Sensing”

**Professor Yordan Kostov, Advisor**

**Serina Jensen, Daniel Staples, Jonathan Williams**                      *Physics*

**Poster # 87**

“Evaluating the Predictive Accuracy of the WRF Model in Assessing Wind Resource at High Resolution”

**Professor Lynn Sparling, Advisor**

**Lynna Kiere**                      *Biological Sciences*

**Poster # 10**

“Reconstructing Carotenoid Coloration in Caciques”

**Professor Kevin Omland, Advisor**

**Kelly Kovack**                      *Psychology*

**Poster # 12**

“Domestic Violence: Risks of Contact and Restraining Orders”

**Professor Christopher Murphy, Advisor**

**Joseph Krylow**                      *Philosophy*

**Poster # 54**

“Noam Chomsky's View of the Mind: Its Philosophical Implications and Antecedents”

**Professor Susan Dwyer, Advisor**

**Candace Mainor**                      *Biochemistry and Molecular Biology*

**Poster # 31**

“*In vivo* Effects of Bisphenol A on the Expression of BRCA1 in the Mouse Mammary Gland”

**Professor Laundette Jones, Advisor**

**Donnetta McFadden**                      *Biochemistry and Molecular Biology*

**Poster # 64**

“Using the Tail Suspension Test to Assess Involvement of PKCI/HNIT1 on Mouse Behavior”

**Professor Jai Bei Wang, Advisor**

- Jacob McGill**      *Chemical Engineering*      **Poster # 52**  
“Structured Stochastic Model of Influenza A Virus in a Host Cell”  
**Professor Mariajose Castellanos, Advisor**
- Jessica McGrath**      *Biochemistry and Molecular Biology*      **Poster # 48**  
“The Relationship Between the Structure of the FIV Matrix Protein and its Ability to Target the Plasma Membrane”  
**Professor Michael Summers, Advisor**
- Chinyere Nwaneri**      *Biological Sciences*      **Poster # 33**  
“The Localization of Parvalbumin in the Human Prefrontal Cortex: A Light and Electron Microscopic Study”  
**Professor Rosalinda Roberts, Advisor**
- Frances Onyimba**      *Biological Sciences*      **Poster # 72**  
“The Neurotoxic Effects of Glutamate on Neonatal Rats”  
**Professor Margaret McCarthy, Advisor**
- Sean Patro**      *Biochemistry and Molecular Biology*      **Poster # 22**  
“Structural Analysis of the Myristoylated Matrix Protein of the Feline Immunodeficiency Virus”  
**Professor Michael Summers, Advisor**
- Christopher Paul**      *English*      **Poster # 39**  
“The Cyberpeople Jack Implant: A Study of Remediation, Ethics, and Technology”  
**Professor Jennifer Maher, Advisor**
- Carlita Phillip**      *Biological Sciences*      **Poster # 62**  
“Determination of Spatial and Temporal Location of Candidate Bar-1 Target Genes in *Caenorhabditis elegans* during Development”  
**Professor David Eisenmann, Advisor**
- Christina Ralls and Katie Better**      *Department of Visual Arts*      **Poster # 92**  
“*Traum Baum* Public Art as Catharsis: Interactive Sculpture and Community Outreach”  
**Professor Steve Bradley, Advisor**
- Charlie Rutter**      *Biological Sciences*      **Poster # 89**  
“Detection of Circulating Hsp90a in Plasma from Tumor-Bearing Mice and Patients”  
**Professor Angelika Burger, Advisor**
- Sasan Salimian**      *Biochemistry and Molecular Biology*      **Poster # 08**  
“Characterization of HTA8, a Histone H2A Gene, in *Arabidopsis* Defense Regulation”  
**Professor Hua Lu, Advisor**
- Adjoa Smalls-Mantey**      *Biochemistry and Molecular Biology*      **Poster # 46**

“Characterization of Nucleocapsid Protein Binding to the Psi-Site of the Moloney Murine Leukemia Virus Genome”

**Professor Michael Summers, Advisor**

**UMBC Game Developer’s Club**      *Computer Science*      **Poster # 01**

**President/Programmer:** *Eric Jordan*

**Programming:** *Josh Allen, Chris Conley, Charles Lohr, Paul Oliver, Elliot Paige*

**Art:** *Micha Betts, Katie Chrzanowski, Arthur Gould, Robert Jones, Marcus Lepage, Kiran Sudhakar,*

*Lesa Wilcox, Helen Zhang, Megan Zlock*

**Sound Effects/Music:** *George Aninwene II, Andrew Garrahan, Maura Sateriale*

“Project Tetra”

**Professor Penny Rheingans, Advisor**

**Erin Voss**      *Chemical Engineering*

**Poster # 03**

“Neurite Outgrowth and Integrin Signaling Pathways in 3D Systems”

**Professor Jennie Leach, Advisor**

**Ryann Williams**      *Environmental Science*

**Poster # 21**

“The Effect of Leaf Litter Species on Tri-trophic Interactions in a Detritus-based Stream Ecosystem”

**Professor Christopher Swan, Advisor**

**1:00 – 3:00 p.m.**

**Izath Aguilar**      *Chemical Engineering*

**Poster # 47**

“Prevention of A $\beta$  Cell Interaction Using Sialic Acid Analogues”

**Professor Theresa Good, Advisor**

**Roderick Bautista**      *Biological Sciences*

**Poster # 38**

“Localization of an Inhibitory Region in the *hZIP1* Promoter”

**Professor Renty Franklin, Advisor**

**Abraham Beyene**      *Chemical Engineering*

**Poster # 45**

“Calcium Dynamics in the Extra-Cellular Space of Neural Tissue”

**Professor Mariajose Castellanos, Advisor**

**Sarah Bourdon**      *Biochemistry and Molecular Biology*

**Poster # 71**

“Sequencing Melanopsin from the Bovine Retina”

**Professor Phyllis Robinson, Advisor**

**Clifford Bridges**      *Mathematics*

**Poster # 51**

“Mathematical Study of Quaternions and Their Properties”

**Professor Muddappa Gowda, Advisor**

**LaToia Bryant**                      *Biological Sciences*                      **Poster # 55**  
“Characterizing L4 and L22 Mutations in *E. coli* Strains Resistant to Oleandomycin Triacetate”  
**Professor Janice Zengel, Advisor**

**Robin Cagey**                      *Sociology and Anthropology*                      **Poster # 41**  
“The African American Experience at Eastern State Penitentiary: Insight into Prison Life and the History of Corrections”  
**Professor Ann Frankowski, Advisor**

**Jenelle Dowling**                      *Biological Sciences*                      **Poster # 78**  
“Low Return Rates and Pairing Infidelity in Two Maryland Oriole Species”  
**Professor Kevin Omland, Advisor**

**Ejiofor Ezekwe**                      *Biological Sciences*                      **Poster # 13**  
“Olfactory Epithelial Cell Degradation in Mice with Surgically Occluded Nostrils”  
**Professor Weihong Lin, Advisor**

**Julie Fields**                      *Sociology and Anthropology*                      **Poster # 73**  
“Is Socioeconomic Status Health Protective? Exploring the Mediating Role of Psychosocial Factors among African Americans”  
**Professor Jessica Kelly-Moore, Advisor**

**Tiffany Fleet**                      *Biological Sciences*                      **Poster # 26**  
“Analyzing the Interactions between RNase MRP and XRN-1 in Order to Further Investigate RNA Metabolism”  
**Professor Lasse Lindahl, Advisor**

**Shilpa Gadwal**                      *Biological Sciences*                      **Poster # 17**  
“The Effects of High-level Troleandomycin Resistance Mutations in rRNA of *Deinococcus radiodurans* on Ribosome Function”  
**Professor Janice Zengel, Advisor**

**Darryl Gaines**                      *Biological Sciences*                      **Poster # 61**  
“Novel Protein Secretion Systems in *Bordetella parapertussis*”  
**Professor Nicholas Carbonetti, Advisor**

**Alison Gottschalk**                      *American Studies*                      **Poster # 59**  
“Gender Shift From Spider-Man to Spider-Girl”  
**Professor Nicole King, Advisor**

**Jonathan Grabe**                      *Psychology*                      **Poster # 09**  
“Relationships and Interactions with Family and Peers as Predictors of Adolescent Substance Use and Depression”  
**Professor Lisa Jordan, Advisor**

- Jamie Heard**                      *Biological Sciences*                      **Poster # 32**  
“A Novel System for Inducible Gene Expression in the Prostate”  
**Professor Charles Bieberich, Advisor**
- Joy Ihekweazu**                      *Chemistry*                      **Poster # 14**  
“Non-Covalent Interactions Between 1,8-Naphthalimide Compounds and Amino Acids”  
**Professor Lisa Kelly, Advisor**
- Hasina Jamal**                      *Computer Engineering*                      **Poster # 07**  
“Fabrication and Characterization of Quantum Cascade Lasers”  
**Professor Fow-Sen Choa, Advisor**
- Tamika John**                      *Biological Sciences*                      **Poster # 11**  
“B-cell Delivered Gene Therapy for Tolerance”  
**Professor David Scott, Advisor**
- Rasheeda Johnson**                      *Biochemistry and Molecular Biology*                      **Poster # 53**  
“Elucidating the BLV Encapsidating  $\Psi$ -site in the 5' Noncoding Region of Gag”  
**Professor Michael Summers, Advisor**
- Simonne-Michelle Jones**                      *Interdisciplinary Studies*                      **Poster # 65**  
“Bridging the Gap Between HIV/AIDS and Awareness in Ghana, Africa”  
**Professor Cindy Schaeffer, Advisor**
- Vovanti Jones**                      *Biological Sciences*                      **Poster # 86**  
“Investigating Potential Second Site Suppressors in the Amp A Pathway in *Dictyostelium discoideum*”  
**Professor Daphne Blumberg, Advisor**
- Joseph Keller**                      *Psychology*                      **Poster # 43**  
“Age and Gender Effects in Pain Distraction Intervention”  
**Professor Lynnda Dahlquist, Advisor**
- Debora Lin**                      *Chemical Engineering*                      **Poster # 44**  
“The Effects of Osmolytes on A $\beta$  Oligomer and Fibril Stability in Physiological Buffers”  
**Professor Theresa Good, Advisor**
- Bettel Mussie**                      *Biological Sciences*                      **Poster # 34**  
“Sex Differences in the Expression of Calcium Transporters in the Hypothalamus”  
**Professor Margaret McCarthy, Advisor**
- Kelechi Ndubuizu**                      *Biological Sciences*                      **Poster # 67**  
“Gene Expression of Omentin 1/2 in Stromal Vascular Cells of Adipose Tissue”  
**Professor John McLenithan, Advisor**
- Oluwaseun Olayiwola**                      *Chemical Engineering*                      **Poster # 23**

“A Quantitative Model of the Rho GTPases Network”

**Professor Mariajose Castellanos, Advisor**

**Peter Parker**

*Biological Sciences*

**Poster # 63**

“Visualization and Analysis of RNase MRP in *Saccharomyces cerevisiae* using Optimized Tetracycline Tagging of SNM1p”

**Professor Lasse Lindahl, Advisor**

**Irene Pastis**

*Biochemistry and Molecular Biology*

**Poster # 57**

“Synthesis of Ring Expanded Nucleoside Analogues for Inhibition of the Hepatitis B and C Viruses”

**Professor Ramachandra Hosmane, Advisor**

**Christopher Paul**

*English*

**Poster # 39**

“The Cyberpeople Jack Implant: A Study of Remediation, Ethics, and Technology”

**Professor Jennifer Maher, Advisor**

**Stephen Pirpiris**

*Department of Mechanical Engineering*

**Poster # 49**

“The Feasibility of Biodiesel from Phytoplankton”

**Professor Tony Farquhar, Advisor**

**Leila Potts and Debbie King**

*Psychology*

**Poster # 40**

“Creating Academic Success Through Guided Study Sessions”

**Professor Diane Alonso, Advisor**

**Akanksha Raja**

*Chemical Engineering*

**Poster # 30**

“Fluorescent Fluoride Ion Detection in Drinking Water Based on Alizarin Red S- Al(III) Complex”

**Professor Govind Rao, Advisor**

**Jacqueline Redmond** *Social Work*

**Poster # 25**

“Barriers to Optimal Health and Social Services Provision among Rural African American Women”

**Professor Tiffany Sanders Baffour, Advisor**

**Robert Reeves**

*Chemical Engineering*

**Poster # 19**

“Drug Delivery Devices Based on Hydrogels of Naturally-Derived Biopolymers”

**Professor Jennie Leach, Advisor**

**Brittany Richardson** *Biochemistry and Molecular Biology*

**Poster # 69**

“Interactions Between DNA Repair Enzyme Thymine-DNA Glycosylase and Cell Cycle Checkpoint Protein Hus1”

**Professor A-Lien Lu-Chang, Advisor**

**Astin Ross**

*Mechanical Engineering*

**Poster # 29**

“Particle Manipulation Using Dielectrophoresis”



**Professor Dawn Bennett, Advisor**

**Charles Rutter**                      *Psychology*                      **Poster # 88**  
“Habituation to the Distractive Properties of Virtual Reality in Pain Analgesia”

**Professor Lynnda Dahlquist, Advisor**

**Maryann Salib**                      *Biochemistry and Molecular Biology*                      **Poster # 36**  
“Metabolic Regulation of RUNX2 Transcription Factor Expression in Endothelial Cells”

**Professor Antonino Passaniti, Advisor**

**Jaelyn Samek**                      *Psychology*                      **Poster # 58**  
“Endorsement of BRIEF Validity Items May Identify Low Participant Investment in Behavioral Research”

**Professor Shari Waldstein, Advisor**

**Ivette Santana-Cruz**                      *Bioinformatics and Computational Biology*                      **Poster # 05**  
“Evaluating the Performance of the BLAST Sequence Similarity Searching Algorithm”

**Professor Stephen Freeland, Advisor**

**Trevor Simpson**                      *Music*                      **Poster # 02**  
“Study and Archiving of Impulses for Convolution Reverb”

**Professor David Kim-Boyle, Advisor**

**Steven Tuyishime**                      *Biological Sciences*                      **Poster # 80**  
“Spiramycin-resistant Mutations in *Escherichia Coli* L4 and L22”

**Professor Janice Zengel, Advisor**

**UMBC Game Developer’s Club**                      *Computer Science*                      **Poster # 01**

**President/Programmer: Eric Jordan**

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**Lesia Wilcox, Helen Zhang, Megan Zlock**

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“Project Tetra”

**Professor Penny Rheingans, Advisor**

**Dianne Weeks**                      *Mechanical Engineering*                      **Poster # 20**  
“Investigations of the Particle Distribution and the Temperature Elevation in Magnetic Fluid Hyperthermia”

**Professor Liang Zhu, Advisor**

**Jeannie Yoon**                      *Biochemistry and Molecular Biology*                      **Poster # 84**  
“Transitions: Photographs by Robert Creamer”

**Professor Lynn Cazabon, Advisor**