

# URCAD 2007 Presenters by Affiliation

Students from these programs are listed below, in alphabetical order by program.

## **CWIT**

**Erickson Hall Residents**  
**Golden Key**  
**Harbor Residents**  
**Hillside Residents**  
**Honors College**  
**Howard Hughes Medical Institute**  
**Humanities Scholars**  
**MARC U STAR and Pre MARC**  
**McNair Scholars**  
**Meyerhoff Scholars**  
**Susquehanna Residents**  
**Walker Ave Residents**

## **CWIT**

**Student: Katie Chrzanowski**  
**Mentor: Frederic Worden**  
**Video Production**  
**11:15 - 11:30 AM, Fine Arts 317**  
**Second Screening**  
**2:45 – 3:00 PM, Fine Arts 221**

**“Who Says the Old Can't Move?”**

**Student: Sumita Das**  
**Mentor: Carolyn Seaman**  
**AM Poster Session**  
**Ballroom**

**“Improving Software Maintenance Through Better Documentation”**

## **Erickson Hall**

**Student: Brittany Richardson**  
**Mentor: A-Lien Lu-Chang**  
**Poster Presentation**  
**1:00 – 3:00 PM**  
**UC Ballroom**

**“Interactions Between DNA Repair Enzyme Thymine-DNA Glycosylase and Cell Cycle Checkpoint Protein Hus 1”**

## **Golden Key**

### **Artistic Presentations**

**Student: Andrew Shoenfeld**

**“The Seven Deadly Sins”**

**Mentor: Lynn Cazabon**  
**Fine Arts First Floor Lighting**  
**Studio 9:30 – 11:30 AM**

**Student: Christina Ralls and**  
**Katie Better**  
**Mentor: Steve Bradley**  
**Ballroom**

**“Traum Baum Public Art as Catharsis: Interactive**  
**Sculpture and Community Outreach”**

### **Oral Presentations**

**Student: Stephanie Núñez**  
**Mentor: Anandarup Gupta**  
**9:30 - 9:45 AM, Room 312**

**“Interaction of PYK2 and PTP-PEST with Leupaxin in**  
**Prostate Cancer Cells”**

**Student: Eric Grollman**  
**Mentors: Ilsa Lottes**  
**and Fred Pincus**  
**10:45 - 11:00 AM, Room 310**

**“Traditional and Modern Homophobia”**

**Student: Uzoma Iheagwara**  
**Mentor: Suzanne Ostrand-**  
**Rosenberg**  
**9:45 - 10:00 AM, Room 312**

**“Uveal Melanoma Vaccines express Major**  
**Histocompatibility Class II Molecules in the Absence of**  
**Invariant Chain”**

**Student: Philip Graff**  
**Mentor: Markos Georganopoulos**  
**10:00 - 10:15 AM, Room 312**

**“A State-of-the-Art Numerical Code for Probing the**  
**Workings of Quasar Jets”**

**Student: Kyle Clelan**  
**Mentor: Douglas Lamdin**  
**10:30 - 10:45 AM, Room 310**

**“Are Super Bowl Betting Markets Informationally**  
**Efficient? The Time-Series Evidence”**

**Student: Maddy Fickes**  
**Mentor: Kathy Bryan**  
**11:00 - 11:15 AM, Room 310**

**“How Momma Raised Me: Understanding the**  
**Upbringing of Rural and Urban Students and its**  
**Relation to College Attendance”**

**Student: Brandon Johnson**  
**Mentor: Tim Topoleski**  
**1:30 - 1:45 PM, Room 310**

**“Improving Mechanical Properties of PMMA Bone**  
**Cement with Nano and Micro Particles”**

**Student: Askia Hill**  
**Mentor: Fow-Sen Choa**  
**2:45 - 3:00 PM, Room 312**

**“Autonomous Flying Control Systems for Mini-flying**  
**Robots”**

**Student: Julie Fields**  
**Mentor: Jessica Kelley-Moore**  
**2:45 - 3:00 PM, Room 310**

**“Is Socioeconomic Status Health Protective? Exploring  
the Mediating Role of Psychosocial Factors among  
African Americans”**

**Poster Presentations – UC Ballroom, 9:30 – 11:30 AM**

**Student: Haroon Ahmad**  
**Mentor: C. Allen Bush**

**“High Pressure Anion-Exchange Chromatography of  
Carbohydrates”**

**Student: Christopher Bednarek**  
**Mentor: Stephen Miller**

**“CR-nitA; the Synthesis of a Selectable Marker for  
Volvox carteri Transformations”**

**Student: Caryn Bell**  
**Mentor: William LaCourse**

**“Development of a Novel Food Spoilage Sensor”**

**Student: Foyin Fasanmi**  
**Mentor: Steven Johnson**

**“Comparison of Markers of Disease Severity in Patients  
with Sepsis and Matched Controls”**

**Student: Adrian Feijoo**  
**Mentor: Weihong Lin**

**“Phosphodiesterase 2-Labeled Atypical Glomeruli and  
Sensory Neurons in the Olfactory System”**

**Student: Frances Onyimba**  
**Mentor: Margaret McCarthy**

**“The Neurotoxic Effects of Glutamate on Neonatal Rats”**

**Student: Charles Rutter**  
**Mentor: Angelika Burger**

**“Detection of Circulating Hsp90a in Plasma from  
Tumor-Bearing Mice and Patients”**

**Student: Adjoa Smalls-Mantey**  
**Mentor: Michael Summers**

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

**Student: Erin Voss**  
**Mentor: Jennie Leach**

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

**Harbor Residents**

**Student: Jessica Dulaney**  
**Mentor: Colette Searls**  
**Dance Program**  
**Fine Arts 317, 10:45 – 11:00 AM**

**“Acting from a Musical Approach”**

**Student: Danielle Durbin**  
**Mentor: Anna Rubin**  
**Dance Program**  
**Fine Arts 344, 11:35 – 11:50 AM**

**“Miracle”**

**Oral Presentations**

**Student: Julie Fields**  
**Mentor: Jessica Kelley-Moore**  
**University Center, 310**  
**2:45 - 3:00 PM**

**“Is Socioeconomic Status Health Protective? Exploring  
the Mediating Role of Psychosocial Factors among  
African Americans”**

**Poster Presentations 9:30 – 11:30 AM, University Center Ballroom**

**Student: Caroline Andes**  
**Mentor: Carolyn Forestiere**

**“Facebook Me: The Facebook™ and Social Capital”**

**Student: Sarah Bourdon**  
**Mentor: Phyllis Robinson**

**“Sequencing Melanopsin from the Bovine Retina”**

**Student: Cally Brandt**  
**Mentor: Richard Mason**

**“Curating a Museum Exhibit: The Glory in Ruins  
Display in the A.O.K. Library Rotunda, January 31-  
March 24, 2007”**

**Poster Presentations 1:00 – 3:00 AM, University Center Ballroom**

**Student: Robin Cagey**  
**Mentor: Ann Frankowski**

**“The African American Experience at Eastern State  
Penitentiary: Insight into Prison Life and the History of  
Corrections”**

**Student: Darryl Gaines**  
**Mentor: Nicholas Carbonetti**

**“Novel Protein Secretion Systems in *Bordetella  
parapertussis*”**

**Student: Debora Lin**  
**Mentor: Theresa Good**

**“The Effects of Osmolytes on A $\beta$  Oligomer and Fibril  
Stability in Physiological Buffers”**

**Student: Robert Reeves**  
**Mentor: Jennie Leach**

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

**Hillside Residents**

**Oral Presentation**

**Student: Matthew Loftus**  
**Mentor: Lisa Kelly**  
**University Center 312**

**“Laser-Stimulated Raman Spectroscopy as a Method for  
Remote Atmospheric Sensing Technology”**

**10:15 - 10:30 AM**

**Poster Presentations, UC Ballroom – 9:30 – 11:30 AM**

**Student: Ramon Cabrera  
Mentor: Mauricio Bustos**

**“A Genetic Approach to Identify Targets of Ubiquitin Ligases from Animals and Plants”**

**Students: Sarah M. Bourdon and Nancy Chiles  
Mentor: Phyllis Robinson**

**“Sequencing Melanopsin from Bovine Retina”**

**Students: Jenny Ficco and Stefanie Kirk  
Mentor: Stanley Feldstein**

**“The Reliability and Internal Consistency of the Revised Dyad Adjustment Scale”**

**Student: Jessica McGrath  
Mentor: Michael Summers**

**“The Relationship Between the Structure of the FIV Matrix Protein and its Ability to Target the Plasma Membrane”**

**Student: Sean Patro  
Mentor: Michael Summers**

**“Structural Analysis of the Myristoylated Matrix Protein of the Feline Immunodeficiency Virus”**

**Student: Sasan Salimian  
Mentor: Hua Lu**

**“Characterization of HTA8, a Histone H2A Gene, in Arabidopsis Defense Regulation”**

**Poster Presentations, UC Ballroom – 1:00 – 3:00 PM**

**Student: Abraham Beyene  
Mentor: Mariajose Castellanos**

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

**Student: Clifford Bridges  
Mentor: Muddappa Gowda**

**“Study of Quaternions and Their Uses”**

**Student: Ejiofor Ezekwe  
Mentor: Weihong Lin**

**“Olfactory Epithelial Cell Degradation in Mice with Surgically Occluded Nostrils ”**

**Student: Whitney Fields  
Mentor: Janice Zengel**

**“Isolation of Mutations in L4 and L22 That Confer Resistance to the Antibiotic Tylosin”**

**Student: Askia Hill  
Mentor: Fow-Sen Choa**

**“Autonomous Flying Control Systems for Mini-flying Robots”**

**Student: Joy Ihekweazu  
Mentor: Lisa Kelly**

**“Non-Covalent Interactions Between 1,8-Naphthalimide Compounds and Amino Acids”**

**Student: Vovanti Jones  
Mentor: Daphne Blumberg**

**“Investigating Potential Second Site Suppressors in the Amp A Pathway in *Dictyostelium discoidium*”**

**Student: Akanksha Raja**  
**Mentor: Govind Rao**

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

**Student: Steven Tuyishime**  
**Mentor: Janice Zengel**

**“Spiramycin-resistant Mutations in *Escherichia coli* L4 and L22”**

**Howard Hughes Medical Institute**

**Student: Stephanie Núñez**  
**Mentor: Anandarup Gupta**  
**Oral Presentation, UC 312**  
**9:30 - 9:45 AM**

**“Interaction of PYK2 and PTP-PEST with Leupaxin in Prostate Cancer Cells”**

**Student: Nerg AchiriMofor**  
**Mentor: Michael Summers**  
**Oral Presentation, UC 312**  
**10:30 - 10:45 AM**

**“Studying the Protein-Protein Interactions Involved in HIV-1 Assembly”**

**Student: Amber Gaither**  
**Mentor: Christopher Plowe**  
**Oral Presentation, UC 312**  
**11:30 -11:45 AM**

**“Nested PCR to Amplify the Plasmodium falciparum Chloroquine Resistance Transporter (PfCRT) in Samples from Clinical Trials in Malawi”**

**9:30 – 11:30 AM Poster Session, UC Ballroom**

**Student: Ramon Cabrera**  
**Mentor: Mauricio Bustos**

**“A Genetic Approach to Identify Targets of Ubiquitin Ligases from Animals and Plants”**

**Student: Foyin Fasanmi**  
**Mentor: Steven Johnson**

**“Comparison of Markers of Disease Severity in Patients with Sepsis and Matched Controls”**

**Student: Marcus Gillis**  
**Mentor: Paul Yarowsky**

**“Parkinsonism Development in Cycad-Fed Rats”**

**Student: Candace Mainor**  
**Mentor: Laundette Jones**

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

**Student: Jessica McGrath**  
**Mentor: Michael Summers**

**“The Relationship Between the Structure of the FIV Matrix Protein and its Ability to Target the Plasma Membrane”**

**Student: Frances Onyimba**  
**Mentor: Margaret McCarthy**

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**Student: Sean Patro**  
**Mentor: Michael Summers**

**“Structural Analysis of the Myristoylated Matrix Protein  
of the Feline Immunodeficiency Virus”**

**Student: Adjoa Smalls-Mantey**  
**Mentor: Michael Summers**

**“Composition and Sequence-Dependent Binding of RNA  
to the Nucleocapsid Protein of Moloney Murine  
Leukemia Virus Genome”**

**1:00 – 3:00 PM Poster Session, UC Ballroom**

**Student: Whitney Fields**  
**Mentor: Janice Zengel**

**“Isolation of Mutations in L4 and L22 That Confer  
Resistance to the Antibiotic Tylosin”**

**Student: Tiffany Fleet**  
**Mentor: Lasse Lindahl**

**“Analyzing the Interactions between RNase MRP and  
XRN-1 in Order to Further Investigate RNA  
Metabolism”**

**Student: Joy Ihekweazu**  
**Mentor: Lisa Kelly**

**“Non-Covalent Interactions Between 1,8-Naphthalimide  
Compounds and Amino Acids”**

**Student: Tamika John**  
**Mentor: David Scott**

**“B-Cell Delivered Gene Therapy for Tolerance”**

**Student: Vovanti Jones**  
**Mentor: Daphne Blumberg**

**“Investigating Potential Second Site Suppressors in the  
Amp A Pathway in *Dictyostelium discoidium*”**

**Student: Steven Tuyishime**  
**Mentor: Janice Zengel**

**“Spiramycin-resistant Mutations in *Escherichia Coli* L4  
and L22”**

**Poster Presentations – UC Ballroom, 9:30 – 11:30 AM**

- Student: LaToia Bryant**  
**Mentor: Janice Zengel**  
“Characterizing L4 and L22 Mutations in *E. coli* Strains Resistant to Oleandomycin Triacetate”
- Student: Jonathan Grabe**  
**Mentor: Lisa Jordan**  
“Relationships and Interactions with Family and Peers as Predictors of Adolescent Substance Use and Depression”
- Student: Hasina Jamal**  
**Mentor: Fow-Sen Choa**  
“Fabrication and Characterization of Quantum Cascade Lasers”
- Student: Debora Lin**  
**Mentor: Theresa Good**  
“The Effects of Osmolytes on A $\beta$  Oligomer and Fibril Stability in Physiological Buffers”
- Student: Bettel Mussie**  
**Mentor: Margaret McCarthy**  
“Sex Differences in the Expression of Calcium Transporters in the Hypothalamus”
- Student: Charles Rutter**  
**Mentor: Lynnda Dahlquist**  
“Habituation to the Distractive Properties of Virtual Reality in Pain Analgesia”
- Student: Maryann Salib**  
**Mentor: Antonino Passaniti**  
“Metabolic Regulation of RUNX2 Transcription Factor Expression in Endothelial Cells”

**Honors College**

**Oral Presentations**

- Student: Charlene Kuo**  
**Mentor: Warren Belasco**  
**University Center, 310**  
**9:15 - 9:30 AM**  
“Dare for More: Analysis of Pepsi’s Global Television Marketing Campaign”
- Student: Stephanie Núñez**  
**Mentor: Anandarup Gupta**  
**University Center, 312**  
**9:30 - 9:45 AM**  
“Interaction of PYK2 and PTP-PEST with Leupaxin in Prostate Cancer Cells”
- Student: Philip Graff**  
**Mentor: Markos Georganopoulos**  
**University Center, 312**  
**10:00 - 10:15 AM**  
“A State-of-the-Art Numerical Code for Probing the Workings of Quasar Jets”
- Student: Christie Finn**  
**Mentor: David Smith**  
**University Center, 312**  
“Movement and the Singer”

**11:15 - 11:30 AM**

**Student: Aaron Stoler  
Mentor: Christopher Swan  
University Center, 310  
2:00 - 2:15 PM**

**“Microbial Respiration on Mixed Leaf Substrates  
Mediated by Insect Feeding”**

**Student: Lidiya Mishchenko  
Mentor: Todd Pittman  
University Center, 310  
2:15 - 2:30 PM**

**“Production of Tapered Optical Fibers”**

**Poster Presentations 9:30 – 11:30 AM, UC Ballroom**

**Student: Cally Brandt and  
Morgan Little  
Mentor: Richard Mason**

**“Curating a Museum Exhibit: The Glory in Ruins  
Display in the A.O.K. Library Rotunda, January 31-  
March 24, 2007”**

**Student: Kelly Kovack  
Mentor: Christopher Murphy**

**“Domestic Violence: Risks of Contact and Restraining  
Orders”**

**Student: Charles Rutter  
Mentor: Angelika Burger**

**“Detection of Circulating Hsp90a in Plasma from  
Tumor-Bearing Mice and Patients”**

**Student: Adjoa Smalls-Mantey  
Mentor: Michael Summers**

**“Composition and Sequence-Dependent Binding of RNA  
to the Nucleocapsid Protein of Moloney Murine  
Leukemia Virus Genome”**

**Poster Presentations 1:00 – 3:00 AM, UC Ballroom**

**Student: Robin Cagey  
Mentor: Ann Frankowski**

**“The African American Experience at Eastern State  
Penitentiary: Insight into Prison Life and the History of  
Corrections”**

**Student: Simonne-Michelle Jones  
Mentor: Cindy Schaeffer**

**“Bridging the Gap Between HIV/AIDS and Awareness in  
Ghana, Africa”**

**Student: Charles Rutter  
Mentor: Lynnda Dahlquist**

**“Habituation to the Distractive Properties of Virtual  
Reality in Pain Analgesia”**

## **Humanities Scholars**

**Student: Dorothy Kenny**  
**Mentor: Daniel Ritschel**  
**Oral Presentation**  
**University Center, Room 312**  
**1:45 - 2:00 PM**

**“Seeing Through Smoke: The Role of Science in Public Health Policy Following the 1952 London Fog”**

**Student: Cally Brandt and Morgan Little**  
**Mentor: Richard Mason**  
**Poster Presentation**  
**University Center, Ballroom**  
**9:30 – 11:30 AM**

**“Curating a Museum Exhibit: The Glory in Ruins Display in the A.O.K. Library Rotunda, January 31-March 24, 2007”**

**Student: Robin Cagey**  
**Mentor: Ann Frankowski**  
**Poster Presentation**  
**University Center, Ballroom**  
**1:00 – 3:00 PM**

**“The African American Experience at Eastern State Penitentiary: Insight into Prison Life and the History of Corrections”**

## **MARC U STAR and Pre MARC**

### **Oral Presentations**

**Student: Stephanie Núñez**  
**Mentor: Anandarup Gupta**  
**University Center, 312**  
**9:30 - 9:45 AM**

**“Interaction of PYK2 and PTP-PEST with Leupaxin in Prostate Cancer Cells”**

**Student: Uzoma Iheagwara**  
**Mentor: Suzanne Ostrand-Rosenberg**  
**University Center, 312**  
**9:45 - 10:00 AM**

**“Uveal Melanoma Vaccines Express Major Histocompatibility Class II Molecules in the Absence of Invariant Chain”**

**Student: Nerg AchiriMofor**  
**Mentor: Michael Summers**  
**University Center, 312**  
**10:30 - 10:45 AM**

**“Studying the Protein-Protein Interactions Involved in HIV-1 Assembly”**

**Student: Amber Gaither**  
**Mentor: Christopher Plowe**  
**University Center, 312**  
**11:30 - 11:45 AM**

**“Nested PCR to Amplify the *Plasmodium falciparum* Chloroquine Resistance Transporter (PfCRT) in Samples from Clinical Trials in Malawi”**

**Student: Brandon Johnson**  
**Mentor: Tim Topoleski**  
**University Center, 310**  
**1:30 - 1:45 PM**

**“Improving Mechanical Properties of PMMA Bone  
Cement with Nano and Micro Particles”**

**Student: Shayla Shorter**  
**Mentor: Violeta Rus**  
**University Center, 310**  
**1:45 - 2:00 PM**

**“Role of TRAIL in Induced and Spontaneous Murine  
Lupus Models”**

**Student: Julie Fields**  
**Mentor: Jessica Kelley-Moore**  
**University Center, 310**  
**2:45 - 3:00 PM**

**“Is Socioeconomic Status Health Protective? Exploring  
the Mediating Role of Psychosocial Factors among  
African Americans”**

**Poster Presentations, 9:30 – 11:30 AM, University Center Ballroom**

**Student: Anthony Agyapong**  
**Mentor: Renty Franklin**

**“Activity of Promoter Regions Critical in hZip1's Role in  
Prostate Cancer”**

**Student: Olufolakemi Awe**  
**Mentor: Colin Garvie**

**“Investigation of the Interaction between RFX5 and  
CREB: Implications for the Regulation of MHC II Gene  
Expression”**

**Student: Caryn Bell**  
**Mentor: William LaCourse**

**“Development of a Novel Food Spoilage Sensor”**

**Student: Sarah Bourdon**  
**Mentor: Phyllis Robinson**

**“Sequencing the Melanopsin from the Bovine Retina”**

**Student: Ramon Cabrera**  
**Mentor: Mauricio Bustos**

**“A Genetic Approach to Identify Targets of Ubiquitin  
Ligases from Animals and Plants”**

**Student: Nancy Chiles**  
**Mentor: Phyllis Robinson**

**“Sequencing Melanopsin from Bovine Retina”**

**Student: Andrew Ciupek**  
**Mentor: Janice Zengel**

**“Analysis of Mutations in Ribosomal Proteins L4 and  
L22 in Spiramycin-Resistant *Deinococcus radiodurans*”**

**Student: Luis Cocka**  
**Mentor: Katherine Seley-Radtke**

**“Synthesis of Carbocyclic Nucleoside Analogues as  
Potential Inhibitors of SAHase and Adenosine  
Deaminase”**

**Student: Ryan Connor**  
**Mentor: Michael Summers**

**“Analysis of HIV-1 SL4-U5 Binding Region”**

**Student: Foyin Fasanmi**  
**Mentor: Steven Johnson**

**“Comparison of Markers of Disease Severity in Patients with Sepsis and Matched Controls”**

**Student: Adrian Feijoo**  
**Mentor: Weihong Lin**

**“Phosphodiesterase 2-Labeled Atypical Glomeruli and Sensory Neurons in the Olfactory System”**

**Student: Ayanna Flegler**  
**Mentor: : Abdu Azad**

**“Differential Gene Expression in Cultured Rodent Malaria Parasite”**

**Student: Candace Mainor**  
**Mentor: Laundette Jones**

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

**Student: Donnetta McFadden**  
**Mentor: Jai Bei Wang**

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

**Poster Presentations, 9:30 – 11:30 AM, University Center Ballroom**

**Student: Jessica McGrath**  
**Mentor: Michael Summers**

**“The Relationship Between the Structure of the FIV Matrix Protein and its Ability to Target the Plasma Membrane”**

**Student: Chinyere Nwaneri**  
**Mentor: Rosalinda Roberts**

**“The Localization of Parvalbumin in the Human Prefrontal Cortex: A Light and Electron Microscopic Study”**

**Student: Frances Onyimba**  
**Mentor: Margaret McCarthy**

**“The Neurotoxic Effects of Glutamate on Neonatal Rats”**

**Student: Sean Patro**  
**Mentor: Michael Summers**

**“Structural Analysis of the Myristoylated Matrix Protein of the Feline Immunodeficiency Virus”**

**Student: Carlita Phillip**  
**Mentor: David Eisenmann**

**“Determination of Spatial and Temporal Location of Candidate Bar-1 Target Genes in *Caenorhabditis elegans* during Development”**

**Student: Adjoa Smalls-Mantey**  
**Mentor: Michael Summers**

**“Composition and Sequence-Dependent Binding of RNA to the Nucleocapsid Protein of Moloney Murine Leukemia Virus Genome”**

**Student: Ryann Williams**  
**Mentor: Christopher Swan**

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

**Poster Presentations, 1:00 – 3:00 PM, University Center Ballroom**

**Student: Izath Aguilar**  
**Mentor: Theresa Good**

**“Prevention of Abeta Cell Interaction Using Sialic Acid Analogues”**

**Student: Roderick Bautista**  
**Mentor: Renty Franklin**

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

**Student: Abraham Beyene**  
**Mentor: Mariajose Castellanos**

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

**Student: Clifford Bridges**  
**Mentor: Muddappa Gowda**

**“Mathematical Study of Quaternions and Their Properties”**

**Student: LaToia Bryant**  
**Mentor: Janice Zengel**

**“Characterizing L4 and L22 Mutations in *E.coli* Strains Resistant to Oleandomycin Triacetate”**

**Student: Ejiofor Ezekwe**  
**Mentor: Weihong Lin**

**“Olfactory Epithelial Cell Degradation in Mice with Surgically Occluded Nostrils”**

**Student: Tiffany Fleet**  
**Mentor: Lasse Lindahl**

**“Analyzing the Interactions between RNase MRP and XRN-1 in Order to Further Investigate RNA Metabolism”**

**Student: Shilpa Gadwal**  
**Mentor: Janice Zengel**

**“The Effects of High-level Troleandomycin Resistance Mutations in rRNA of *Deinococcus radiodurans* on Ribosome Function”**

**Student: Darryl Gaines**  
**Mentor: Nicholas Carbonetti**

**“Novel Protein Secretion Systems in *Bordetella parapertussis*”**

**Student: Jamie Heard**  
**Mentor: Charles Bieberich**

**“A Novel System for Inducible Gene Expression in the Prostate”**

**Student: Joy Ihekweazu**  
**Mentor: Lisa Kelly**

**“Non-Covalent Interactions Between 1,8-Naphthalimide Compounds and Amino Acids”**

**Student: Hasina Jamal**  
**Mentor: Fow-Sen Choa**

**“Fabrication and Characterization of Quantum Cascade Lasers”**

**Student: Tamika John**  
**Mentor: David Scott**

**“B-Cell Delivered Gene Therapy for Tolerance”**

**Student: Vovanti Jones**  
**Mentor: Daphne Blumberg**

**“Investigating Potential Second Site Suppressors in the Amp A Pathway in *Dictyostelium discoidium*”**

**Student: Joseph Keller**  
**Mentor: Lynnda Dahlquist**

**“Age and Gender Effects in Pain Distraction Intervention”**

**Student: Debora Lin**  
**Mentor: Theresa Good**

**“The Effects of Osmolytes on A $\beta$  Oligomer and Fibril Stability in Physiological Buffers”**

**Student: Bettel Mussie**  
**Mentor: Margaret McCarthy**

**“Sex Differences in the Expression of Calcium Transporters in the Hypothalamus”**

**Student: Oluwaseun Olayiwola**  
**Mentor: Mariajose Castellanos**

**“ A Quantitative Model of the Rho GTPases Network”**

**Student: Akanksha Raja**  
**Mentor: Govind Rao**

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

**Student: Brittany Richardson**  
**Mentor: A-Lien Lu-Chang**

**“Interactions Between DNA Repair Enzyme Thymine-DNA Glycosylase and Cell Cycle Checkpoint Protein Hus 1”**

**Student: Astin Ross**  
**Mentor: Dawn Bennett**

**“Particle Manipulation Using Dielectrophoresis”**

**Student: Maryann Salib**  
**Mentor: Antonino Passaniti**

**“Metabolic Regulation of RUNX2 Transcription Factor Expression in Endothelial Cells”**

**Student: Ivette Santana-Cruz**  
**Mentor: Stephen Freeland**

**“Evaluating the Performance of the BLAST Sequence Similarity Searching Algorithm”**

**Student: Steven Tuyishime**  
**Mentor: Janice Zengel**

**“Spiramycin-resistant Mutations in *Escherichia Coli* L4 and L22”**

**Student: Dianne Weeks**  
**Mentor: Liang Zhu**

**“Investigations of the Particle Distribution and the Temperature Elevation in Magnetic Fluid Hyperthermia”**

### **McNair Scholars**

**Student: DeLeon Gray**  
**Mentor: Charissa Cheah**  
**Oral Presentation, UC 310**  
**10:00 - 10:15 AM**

**“Enhancing the Educational Outlooks of Adolescent Mothers through Social Relationships”**

**Student: Maddy Fickes**  
**Mentor: Kathy Bryan**  
**Oral Presentation, UC 310**  
**11:00 - 11:15 AM**

**“How Momma Raised Me: Understanding the Upbringing of Rural and Urban Students and its Relation to College Attendance”**

**Student: Durell Callier**  
**Mentor: Laura Ting**  
**Oral Session, UC 312**  
**2:30 - 2:45 PM**

**“Analyzing Predictors of Academic Success among African American Adolescents within an Urban Charter School”**

### Poster Presentations in University Center Ballroom

**Student: Caryn Bell** "Development of a Novel Food Spoilage Sensor"  
**Mentor: William LaCourse**  
**9:30 – 11:30 AM**

**Student: Shilpa Gadwal** "The Effects of High-Level Troleandomycin Resistance Mutations in rRNA of *Deinococcus radiodurans* on Ribosome Function"  
**Mentor: Janice Zengel**  
**9:30 – 11:30 AM**

**Student: Simonne-Michelle Jones** "Bridging the Gap Between HIV/AIDS and Awareness in Ghana, Africa"  
**Mentor: Cindy Schaeffer**  
**1:00 – 3:00 PM**

**Student: Oluwaseun Olayiwola** " A Quantitative Model of the Rho GTPases Network"  
**Mentor: Mariajose Castallanos**  
**1:00 – 3:00 PM**

### Meyerhoff Scholars

### Oral Presentations, University Center

**Student: Stephanie Núñez** "Interaction of PYK2 and PTP-PEST with Leupaxin in Prostate Cancer Cells"  
**Mentor: Anandarup Gupta**  
**Room 312**  
**9:30 - 9:45 AM**

**Student: Uzoma Iheagwara** "Uveal Melanoma Vaccines express Major Histocompatibility Class II Molecules in the Absence of Invariant Chain"  
**Mentor: Suzanne Ostrand-Rosenberg**  
**Room 312**  
**9:45 - 10:00 AM**

**Student: Nerg AchiriMofor** "Studying the Protein-Protein Interactions Involved in HIV-1 Assembly"  
**Mentor: Michael Summers**  
**Room 312**  
**10:30 - 10:45 AM**

**Student: Amber Gaither** "Nested PCR to Amplify the Plasmodium falciparum Chloroquine Resistance Transporter (PfCRT) in Samples from Clinical Trials in Malawi"  
**Mentor: Christopher Plowe**  
**Room 312**  
**11:30 - 11:45 AM**

**Student: Brandon Johnson** "Improving Mechanical Properties of PMMA Bone Cement with Nano and Micro Particles"  
**Mentor: Tim Topoleski**

**Room 310  
1:30 - 1:45 PM**

**Student: Shayla Shorter  
Mentor: Violeta Rus  
Room 310  
1:45 - 2:00 PM**

**“Role of TRAIL in Induced and Spontaneous Murine  
Lupus Models”**

**Poster Presentations, Ballroom, 9:30 – 11:30 AM**

**Student: Anthony Agyapong  
Mentor: Renty Franklin**

**“Activity of Promoter Regions Critical in hZip1's Role in  
Prostate Cancer”**

**Student: Olufolakemi Awe  
Mentor: Colin Garvie**

**“Investigation of the Interaction between RFX5 and  
CREB: Implications for the Regulation of MHC II Gene  
Expression”**

**Student: Caryn Bell  
Mentor: William LaCourse**

**“Development of a Novel Food Spoilage Sensor”**

**Student: Sarah Bourdon  
Mentor: Phyllis Robinson**

**“Sequencing Melanopsin from the Bovine Retina”**

**Student: Ramon Cabrera  
Mentor: Mauricio Bustos**

**“A Genetic Approach to Identify Targets of Ubiquitin  
Ligases from Animals and Plants”**

**Student: Nancy Chiles  
Mentor: Phyllis Robinson**

**“Sequencing the Melanopsin Gene from Bovine Retina”**

**Student: Andrew Ciupek  
Mentor: Janice Zengel**

**“Analysis of Mutations in Ribosomal Proteins L4 and  
L22 in Spiramycin-Resistant *Deinococcus Radiodurans*”**

**Student: Luis Cocka  
Mentor: Katherine Seley-Radtke**

**“Synthesis of Carbocyclic Nucleoside Analogues as  
Potential Inhibitors of SAHase and Adenosine  
Deaminase”**

**Student: Ryan Connor  
Mentor: Michael Summers**

**“Analysis of HIV-1 SL4-U5 Binding Region”**

**Student: Adrian Feijoo  
Mentor: Weihong Lin**

**“Phosphodiesterase 2-Labeled Atypical Glomeruli and  
Sensory Neurons in the Olfactory System”**

**Student: Ayanna Flegler  
Mentor: : Abdu Azad**

**“Differential Gene Expression in Cultured Rodent  
Malaria Parasite”**



**Student: Clifford Bridges**  
**Mentor: Muddappa Gowda**

**“Mathematical Study of Quaternions and Their Properties”**

**Student: LaToia Bryant**  
**Mentor: Janice Zengel**

**“Characterizing L4 and L22 Mutations in E. coli Strains Resistant to Oleandomycin Triacetate”**

**Student: Ejiofor Ezekwe**  
**Mentor: Weihong Lin**

**“Olfactory Epithelial Cell Degradation in Mice with Surgically Occluded Nostrils”**

**Student: Whitney Fields**  
**Mentor: Janice Zengel**

**“Isolation of Mutations in L4 and L22 That Confer Resistance to the Antibiotic Tylosin”**

**Student: Tiffany Fleet**  
**Mentor: Lasse Lindahl**

**“Analyzing the Interactions between RNase MRP and XRN-1 in Order to Further Investigate RNA Metabolism”**

**Student: Shilpa Gadwal**  
**Mentor: Janice Zengel**

**“The Effects of High-level Troleandomycin Resistance Mutations in rRNA of *Deinococcus radiodurans* on Ribosome Function”**

**Student: Darryl Gaines**  
**Mentor: Nicholas Carbonetti**

**“Novel Protein Secretion Systems in *Bordetella parapertussis*”**

**Student: Jamie Heard**  
**Mentor: Charles Bieberich**

**“A Novel System for Inducible Gene Expression in the Prostate”**

**Student: Askia Hill**  
**Mentor: Fow-Sen Choa**

**“Autonomous Flying Control Systems for Mini-flying Robots”**

**Student: Joy Ihekweazu**  
**Mentor: Lisa Kelly**

**“Non-Covalent Interactions Between 1,8-Naphthalimide Compounds and Amino Acids”**

**Student: Hasina Jamal**  
**Mentor: Fow-Sen Choa**

**“Fabrication and Characterization of Quantum Cascade Lasers”**

**Student: Tamika John**  
**Mentor: David Scott**

**“B-cell Delivered Gene Therapy for Tolerance”**

**Student: Rasheeda Johnson**  
**Mentor: Michael Summers**

**“Elucidating the BLV Encapsidating psi-site in the 5' Noncoding Region Of Gag”**

**Student: Vovanti Jones**  
**Mentor: Daphne Blumberg**

**“Investigating Potential Second Site Suppressors in the Amp A Pathway in *Dictyostelium discoidium*”**

**Student: Joseph Keller**

**“Age and Gender Effects in Pain Distraction”**

**Mentor: Lynnda Dahlquist**

**Intervention”**

**Student: Debora Lin  
Mentor: Theresa Good**

**“The Effects of Osmolytes on A $\beta$  Oligomer and Fibril Stability in Physiological Buffers”**

**Student: Bettel Mussie  
Mentor: Margaret McCarthy**

**“Sex Differences in the Expression of Calcium Transporters in the Hypothalamus”**

**Student: Kelechi Ndubizu  
Mentor: John McLenithan**

**“Gene Expression of Omentin 1/2 in Stromal Vascular Cells of Adipose Tissue”**

**Student: Akanksha Raja  
Mentor: Govind Rao**

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

**Student: Brittany Richardson  
Mentor: A-Lien Lu-Chang**

**“Interactions Between DNA Repair Enzyme Thymine-DNA Glycosylase and Cell Cycle Checkpoint Protein Hus 1”**

**Student: Astin Ross  
Mentor: Dawn Bennett**

**“Particle Manipulation Using Dielectrophoresis”**

**Student: Maryann Salib  
Mentor: Antonino Passaniti**

**“Metabolic Regulation of RUNX2 Transcription Factor Expression in Endothelial Cells”**

**Student: Ivette Santana-Cruz  
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**Student: Steven Tuyishime  
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**“Spiramycin-resistant Mutations in Escherichia Coli L4 and L22”**

**Student: Dianne Weeks  
Mentor: Liang Zhu**

**“Investigations of the Particle Distribution and the Temperature Elevation in Magnetic Fluid Hyperthermia”**

### **Susquehanna Residents**

**Student: Meghan DeVore  
Mentor: Nicole King  
Oral Presentation, UC 310  
11:15 - 11:30 AM**

**“Fan Tourism: Exploring the Creation of Religious Experience and the Deprivation of Culture”**

**Student: Jamie Heard  
Mentor: Charles Bieberich  
Poster Presentation, Ballroom  
1:00 – 3:00 PM**

**“A Novel System for Inducible Gene Expression in the Prostate”**

## **Walker Ave Residents**

### **Artistic Works**

**Student: Katie Chrzanowski**  
**Mentor: Frederic Worden**  
**11:15 – 11:30 AM, Fine Arts 317**  
**2:45 – 3:00 pm, Fine Arts 221**

**“Who Says the Old Can't Move?”**

**Student: Stephanie Potter**  
**Mentor: Calla Thompson**  
**9:30 – 11:30 AM**  
**Fine Arts First Floor Hallway Gallery**

**“Recollections of Katrina: A Visual Exploration of the Subjectivity of Memory”**

**Student: Andrew Shoenfeld**  
**Mentor: Lynn Cazabon**  
**9:30 – 11:30 AM**  
**Fine Arts First Floor Lighting Studio**

**“The Seven Deadly Sins”**

### **Oral Presentations**

**Student: Charlene Kuo**  
**Mentor: Warren Belasco**  
**University Center, 310**  
**9:15 - 9:30 AM**

**“Dare for More: Analysis of Pepsi's Global Television Marketing Campaign”**

**Student: Amber Gaither**  
**Mentor: Christopher Plowe**  
**University Center, 312**  
**9:30 - 9:45 AM**

**“Nested PCR to Amplify the Plasmodium falciparum Chloroquine Resistance Transporter in Samples from Clinical Trials in Malawi”**

**Student: Christina Stanley**  
**Mentor: Cynthia Hody**  
**University Center, 310**  
**9:30 - 9:45 AM**

**“Perceptions (or Misperceptions) and the Troubled State of US-Iranian Relations”**

**Student: Eric Grollman**  
**Mentors: Ilsa Lottes and Fred Pincus**  
**University Center, 310**  
**10:45 - 11:00 AM**

**“Traditional and Modern Homophobia at UMBC”**

**Student: Christie Finn**  
**Mentor: David Smith**  
**University Center, 312**  
**11:15 - 11:30 AM**

**“Movement and the Singer”**

**Student: Durell Callier**  
**Mentor: Laura Ting**  
**University Center, 312**

**“Analyzing Predictors of Academic Success among African American Adolescents within an Urban Charter School”**

**2:30 - 2:45 PM**

**Student: Louis Leibowitz  
Mentor: Ilsa Lottes  
University Center, 310  
2:30 - 2:45 PM**

**“Evaluating the Fiscal Effects of Same-Sex Marriage in Maryland”**

**Student: UMBC Game Development Club  
Mentor: Penny Rheingans  
Ballroom  
Demonstrations, all day**

**“Project Tetra”**

**Poster Presentations, Ballroom, 9:30 – 11:30 AM**

**Student: William Becker  
Mentor: Theresa Good**

**“Developing a Platform for the Detection of Beta Amyloid, a Protein Associated with the Development of Senile Plaques Found in Alzheimer’s Disease”**

**Student: Donnetta McFadden  
Mentor: Jai Bei Wang**

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

**Student: Charles Rutter  
Mentor: Angelkia Burger**

**“Detection of Hsp90 $\alpha$ , a Circulating Isoform of Hsp90, in Plasma from Tumor-Bearing Mice and Patients”**

**Student: Erin Voss  
Mentor: Jennie Leach**

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

**Poster Presentations, 1:00 – 3:00 PM**

**Student: Roderick Bautista  
Mentor: Renty Franklin**

**“Localization of an Inhibitory Region in the hZIP1 Promoter”  
“Age and Gender Effects in Pain Distraction Intervention”**

**Student: Joseph Keller  
Mentor: Lynnda Dahlquist**

**Student: Bettel Mussie  
Mentor: Margaret McCarthy**

**“Sex Differences in the Expression of Calcium Transporters in the Hypothalamus”**

**Student: Charles Rutter  
Mentor: Lynnda Dahlquist**

**“Habituation to the Distractive Properties of Virtual Reality in Pain Analgesia”**

**Student: Ivette Santana-Cruz  
Mentor: Stephen Freeland**

**“Evaluating the Performance of the BLAST Sequence Similarity Searching Algorithm”**