

Undergraduate Research and Service Celebratory Symposium
 Clayton Hall Conference Center
 Thursday, August 9, 2012
 8:30 a.m. - 4:30 p.m.

8:00 – 8:35	Registration Breakfast Poster Set-Up	Lobby Room 101 A/B
8:40 – 8:55	Welcoming Remarks by Nancy Brickhouse, Interim Provost	Lobby
9:00 --10:30	<i>Poster Session I</i> (Even-numbered students stand by poster)	Room 101 A/B
9:00 – 10:00	Oral Session 1 1. International Relations 2. Communication 3. Cognitive Science and Philosophy 4. Music/Spoken Word/Language Acquisition 5. Pedagogy and Public Policy	Room 119 Room 120 Room 121 Room 123 Room 125
10:10 – 11:10	Oral Session 2 1. Teaching 2. Sociology and Criminal Justice 3. History/Economics 4. Older Adults	Room 119 Room 120 Room 121 Room 125
10:45 – 12:15	Poster Session II (Odd-numbered students stand by poster)	Room 101 A/B
11:20 – 12:35	Oral Session 3 1. Science 2. Arts Policy and Music 3. Family Intervention 4. Urban Communities	Room 128 Room 119 Room 120 Room 125
12:15 – 1:20	LUNCH	Pencader 103, 106, 115A&B, 117
1:30 – 2:30	HHMI Keynote Speaker Dr. Ed McCleskey Scientific Officer, Howard Hughes Medical Institute "Why the Fun of Discovery is All That Should Matter to You"	Auditorium, Room 128
1:30 – 2:30	Oral Session 4 1. Art and Design 2. Disabilities 3. Human Development 4. Culture and Identity	Room 119 Room 120 Room 121 Room 125
2:40-3:55	Oral Session 5 1. English/Anthropology 2. Arts Outreach 3. Political Science 4. Chemistry/Mathematical Sciences	Room 119 Room 120 Room 121 Room 125
3:15-4:15	UD Creamery Ice Cream, courtesy of the College of Agriculture and Natural Resources	Lobby

4:15-4:45

Closing Remarks

Auditorium, Room 128

State of Delaware Representative Darryl Scott

Legislative District 31

Announcement of Interdisciplinary Undergraduate Research

in Sustainability Prize

Raffle with giveaway prizes

Poster Presentations

LIFE SCIENCES (Agriculture and Natural Resources, Animal and Food Sciences, Entomology and Wildlife Ecology, Plant and Soil Sciences, Biological Sciences, Human Ecology, Neuroscience)

AGRICULTURE AND NATURAL RESOURCES

Jericka Hale, Biology (EPSCoR) (DSU)

Dewayne Fox, Agricultural and Natural Resources, DSU

Fishery Ecology and Management of Sand Tiger Sharks and Atlantic Sturgeon

Shelby Alston, [MAJOR] (EPSCoR) (DSU)

Dahlia Jackson, Agricultural and Natural Resources, DSU

TBD: Agricultural Animal Science

Saeed Amiri, Biological Sciences (EPSCoR) (Rutgers)

Venu Kalavacharla, Agricultural and Natural Resources, DSU

Identification of Small RNAs in Common Bean

Amy Cannon, Agriculture and Natural Resources (EPSCoR) (DSU)

Gulini Ozbay, Agricultural and Natural Resources, DSU

Examining Aquatic Health of a Municipal and Industrial Point Source in the Delaware Inland Bays: A Case Study on Heavy Metal Contaminants

ANIMAL AND FOOD SCIENCES

Jere' Hutson, Biological Sciences (INBRE) (DSU)

Daniel Bautista, Animal Food Sciences

Performance Comparison of Salmonella sp. Detection Tools used in Poultry Meat and Environmental Samples

Kayla Titus, Dietetics (S&E)

Larry Cogburn, Animal & Food Sciences

Differential Gene Expression in Genetically-Selected Fat and Lean Phenotypes

Emily Mackey, Pre-Veterinary Medicine and Animal Biosciences (S&E)

Tanya Gressley, Animal & Food Sciences

Effects of Subacute Ruminal Acidosis on Gene Expression Patterns and Functions of the Rumen mucosa

Regan Nebenhaus, Pre-Veterinary Medicine and Animal Biosciences (S&E)

Tanya Gressley, Animal & Food Sciences

Subacute Ruminal Acidosis on Rumen Mucosal Tissue Homeostasis

Rachel Brown, Food Science (S&E)

Kali Kniel, Animal & Food Sciences

Assessing Microbial Risk in the Development of Food Safety Metrics for Leafy Greens and Tomatoes

Cooper Asay, Pre-Veterinary Medicine and Animal Biosciences (S&E)

Limin Kung, Animal & Food Sciences

The Effects of Different Treatments To Rumen and Silage Fermentation

Kimberley Freedman, Animal Science (S&E)

Limin Kung, Animal & Food Sciences

The Effect of Silage Fermentation on Ruminant Nutrition

Rebecca Savage, Pre-Veterinary Medicine and Animal Biosciences (S&E)
Limin Kung, Animal & Food Sciences
Ruminant Nutrition

Stephanie Shapiro, Pre-Veterinary Medicine and Animal Biosciences (S&E)
Carl Schmidt, Animal & Food Sciences
Avian Intestinal Enterocyte Growth Models

Seretha Suah, Biology (INBRE) (DSU)
Carl Schmidt, Animal & Food Sciences
PCR & the Effects of Metal Toxicity on Gene Expression

Rebecca Frost, Animal Biological Science (Extension Scholars)
Carissa Wickens, Animal & Food Sciences
Assessing the Needs of Delaware Equine Owners and the Impact of Equine Extension Programming and Resources

ENTOMOLOGY AND WILDLIFE ECOLOGY

Kelsey Schwenk, Wildlife Conservation (S&E)
Jacob Bowman, Entomology & Wildlife Ecology
Camera Surveying of Mesocarnivores to Determine Relative Abundance and Species Richness

Angela Carcione, Wildlife Conservation/Entomology (S&E)
Deborah Delaney, Entomology & Wildlife Ecology
Population Genetics of Forest Bees

Samantha Nestory, Biological Sciences (EPSCoR)
Judith Hough-Goldstein, Entomology & Wildlife Ecology
Science and Technology Campus Revegetation Experiment

Amanda Stout, Biomedical Engineering/Biological Sciences (S&E)
Judy Hough-Goldstein, Entomology & Wildlife Ecology
Statistical Comparison of Lab Weevils and Field Weevils

Keara English, Biological Sciences (S&E)
Douglas Tallamy, Entomology & Wildlife Ecology
Bird Coloration in Relation to Bird Diet

Melissa Richard, Wildlife Conservation (S&E)
Douglas Tallamy, Entomology & Wildlife Ecology
Avian Abundance as a Measure of Water Quality Impact on Ecosystem Stability

PLANT AND SOIL SCIENCES

Ryan DelPercio, Agriculture and Natural Resources (EPSCoR) (Delaware Tech)
Harsh Bais, Plant & Soil Sciences
Microbiology of Rice Plant's Rhizosphere

Adam Draper, Biology (EPSCoR) (Delaware Tech)
Harsh Bais, Plant & Soil Sciences
Microbiome of Rice

Bianca Riddick, Biology (CANR) (Norfolk State University)

Nicole Donofrio, Plant & Soil Sciences
Understanding Gene Expression During the Interaction between a Biocontrol Bacterium and a Fungal Rice Pathogen

John Kairis, Biological Sciences (S&E)
Jung-Youn Lee, Plant & Soil Sciences
Virus Induced Gene Silencing in *Nicotiana Benthamiana*

Donald Seifrit, Jr., Plant Science (Extension Scholars)
Richard Taylor, Plant and Soil Sciences and Carrie Murphy, New Castle County Cooperative Extension
Working in Research and Education in Agricultural Extension

Coleen McCarren, MAJOR (EPSCoR) (Washington College)
K. Eric Wommack, Plant & Soil Sciences
TBA: Environmental Virology

Helen Schmidt, Biochemistry (EPSCoR/HHMI)
K. Eric Wommack, Plant & Soil Sciences
Characterization of DNA polymerase from ssDNA viruses

Steven Szmyd, Engineering (EPSCoR)
K. Eric Wommack, Plant & Soil Sciences
TBA: Environmental Virology

Vansay Vorrasane, Biology (EPSCoR) (DTCC)
K. Eric Wommack, Plant & Soil Sciences
Viral Genome Research

BIOLOGICAL SCIENCES

Laura Powell, Biological Sciences (HHMI/CPW Bio)
Fidelma Boyd, Biological Sciences
Osmotic Stress Response in *ompR* Mutant of *Vibrio parahaemolyticus*

Edward Carl, Histotechnology (INBRE) (Delaware Tech)
Matthew Butchbach, Biological Sciences
Histological Alterations in the CNS of Mouse Models for Spinal Muscular Atrophy

Kevin Lozo, Biological Sciences (INBRE)
Matthew Butchbach, Biological Sciences
Regulation of SMN2 Expression by Inhibition of DcpS

David Matera, Biological Sciences (CPW Bio)
Carlton Cooper, Biological Sciences
The Effects of Shear Stress on Adenosine Triphosphate Release and Cytoskeleton Formation in Prostate Cancer Cells

Robert Cirino, Biology (EPSCoR) (Lincoln University)
Kirk Czymmek, Biological Sciences
The effects of Biochar on Disease Resistance in *Arabidopsis*

Emily Jacobson, Biological Sciences (S&E)
Patricia DeLeon, Biological Sciences
Role of Plasma Membrane Calcium ATPase 4 and Nitric Oxide in Sperm Motility

Torey Roesch, Biological Sciences (HHMI/CPW Bio)
Randall Duncan, Biological Sciences

P2Y2 Receptor Desensitizes Osteoblasts Response to Mechanical Load through Phosphorylation of RhoA

Cullen Worsh, Biological Sciences (S&E Bio)
Melinda Duncan, Biological Sciences
The Role of Bin3 in Meridional Region Organization During Lens Development

Jocelyn Zajac, Biochemistry (HHMI)
Melinda Duncan, Biological Sciences
The Regulation and Function of Sip1 in the Lens

Hamza Bhatti, Biological Sciences (HHMI/DE)
Deni Galileo, Biological Sciences
Time-lapse Analysis of Glioma Cell Behavior in Embryonic Brain Cell Co-cultures

Nicole Day, Biology (EPSCoR) (DSU)
Melissa Harrington, Biology Department, DSU
Evaluation/Comparison of DNA Collection Techniques: Dry Swab vs Wet Swab

David Lipscomb, Biological Sciences (INBRE) (DSU)
Melissa Harrington, Biology Department, DSU
Motor Neuron Development in Spinal Muscular Atrophy

Sunita Amiri, MAJOR (INBRE) (DSU)
Melissa Harrington, Biology Department
TBD: Neuroscience

Christine Dang, Biological Sciences (S&E)
Salil Lachke, Biological Sciences
Characterization of Small Maf Regulators in Mammalian Lens Development and Cataract

Kahina Ghanem, Biological Sciences (Stetson)
Gary Laverty, Biological Sciences
Bicarbonate Transport in Primary Cell Cultures of Chick Proximal Tubule

Dana Ballis, Biological Sciences (HHMI)
Ulhas Naik, Biological Sciences
Calcium and Integrin Binding Protein's Role in Cancer Metastasis

Christine Kurian, Biological Sciences (S&E)
Ulhas Naik, Biological Sciences
Migratory Behavior of Breast Cancer Cells in Response to Manipulation of Structural Components of Junctional Adhesion Molecule-A

Vandhana Reddy, Biological Sciences (S&E)
Anja Nohe, Biological Sciences
Toxicity of Silver Nanoparticles with a Hydrodynamic Radius of 14nm: Potential Biological and Therapeutic Applications

Nicholas Lombardi, Biological Sciences (HHMI)
Erica Selva, Biological Sciences
Investigating the Role of Wntless Isoforms in Wingless Signaling

Allison McCague, Biological Sciences (HHMI)

Erica Selva, Biological Sciences
The Role of N-Linked Glycosylation During *Drosophila* Development

Joseph Morris, Biological Sciences (INBRE)
Robert Sikes, Biological Sciences
The Role of Growth Differentiation Factors in Prostate Cancer Metastasis to Bone

Lisa Pilchman, Biological Sciences (S&E)
Katia Sol-Church, Biological Sciences
Identifying the Genetic Mutation That Causes Baratella-Scott Syndrome

Gregory Alexander, Biological Sciences (S&E Bio)
Jia Song, Biological Sciences
Investigating the Role of piRNA in Neurogenesis

Megan Dumas, Biological Sciences (CPW Bio)
Jia Song, Biological Sciences
The Effect of microRNA-31 on the Small GTPase ARF6 and the Role of ARF6 in Early Development of Sea Urchin Embryos

Talha Bhatti, Biological Sciences (INBRE)
Kenneth VanGolen, Biological Sciences
Understanding the Role of Attenuated Rho GTPase on Inflammatory Breast Cancer Metastasis

Michael Bourne, Biological Sciences (CPW Bio)
Kenneth vanGolen, Biological Sciences
Effect of Platelet derived growth factor receptor (PDGFR) Tyrosine Kinase Inhibitors on Inflammatory Breast Cancer Cell Survival

Adam Horn, Biological Sciences (CPW Bio)
Kenneth vanGolen, Biological Sciences
The Effect of RhoA and RhoC Expression Levels on Apoptosis

Sydney Sudler, Biology (INBRE) (DSU)
Kenneth VanGolen, Biological Sciences
IGF1 and Wisp3 (LIBC) in Inflammatory Breast Cancer

Brianna Johnson, Biology (EPSCoR) (DSU)
Clytrice Watson, Biology Department, DSU
Isolating mtDNA from Processed Foods

Natalie Toy, Biotechnology (INBRE) (DTCC)
Kirk Czymmek, Biological Sciences
TBD

Fanta Kalle, Biological Sciences (INBRE) (DTCC)
Larry Holmes and Kirk Dabney, Nemours/A.I. duPont Hospital for Children
Racial/Ethnic Disparities in Asthma Admission

HUMAN ECOLOGY

Michael Hickey, Biology (EPSCoR) (Wesley)
Jung-Lim Lee, Human Ecology
Development of PCR Methodology for the Rapid Detection of *Vibrio* spp. to Improve Seafood and Water Quality Assessment in Aquaculture

Kristen Hyland, Biology (EPSCoR) (DSU)

Stephen Lumor, Human Ecology, DSU

The Effect of Dietary Supplementation with Njangsa Seed on the Fatty Acid Profile and Cholesterol Content of Egg Yolk

NEUROSCIENCE

Monica Patel, Neuroscience/Psychology (S&E)

Amy Griffin, Psychology

Hippocampal Inactivation Effects on Dual Tasks

Erin McKenna, Neuroscience/Psychology (S&E)

James Hoffman, Psychology

Emotion-Induced Blindness and the Subconscious

Mia Castiglione, Neuroscience (S&E)

Anna Klintsova, Psychology

C-fos Activation in the Dentate Gyrus of Alcohol-Exposed Rats Given Access to Wheel-Running

Lisa Scheuing, Neuroscience/Psychology (S&E)

Tania Roth, Psychology

Early Life Stress Effects on the Medial Prefrontal Cortex

NATURAL SCIENCES (Chemistry and Biochemistry, Mathematical Sciences, Physics, Environmental Science, Marine Science)

CHEMISTRY AND BIOCHEMISTRY

Tyler Slouf, Chemical Engineering (Chemistry Alumni)

Svilen Bobev, Chemistry & Biochemistry

Sustainability through Thermoelectric Materials

Rebecca Gripp, Biological Sciences (EPSCoR)

Clara Chan, Chemistry & Biochemistry

Biom mineralization of Neutrophilic Fe-oxidizing Microbes

Eleanor McDougall, Environmental Science (S&E)

Thomas Church, Chemistry & Biochemistry

Polonium Activity Levels in the Delaware Bay Estuary

Victor DeBarros, Biology (EPSCoR) (Wesley)

Malcolm D'Souza, Chemistry Department, Wesley

The Effects of Diallyl Carbamyl Chloride reacted with Aqueous Ethanol & Methanol

Jasbir Deol, Biochemistry (INBRE) (Wesley)

Malcolm D'Souza, Chemistry Department, Wesley

Study of The Kinetic Rate Data of 4,5-dimethoxy-2-nitrobenzyl chloroformate

Gabriel Fernandez-Bueno, Biology (INBRE) (Wesley)

Malcolm D'Souza, Chemistry Department, Wesley

Presence of Ras Substrates in Various Cancer Determining Pathways

Kyle Gillespie, MAJOR (INBRE) (Wesley)

Malcolm D'Souza, Chemistry Department, Wesley

TBD: Environmental Chemistry

Aaron Givens, MAJOR (EPSCoR) (Wesley)
Malcolm D'Souza, Chemistry Department, Wesley
TBD: Environmental Chemistry

Catherine Gross, Biology (INBRE) (Wesley)
Malcolm D'Souza, Chemistry Department, Wesley
Solvolysis of α -chloro-2-(trifluoromethyl)-benzyl chloroformate in fluoro alcohols

Kaylee Miller, Biological Chemistry (INBRE) (Wesley)
Malcolm D'Souza, Chemistry Department, Wesley
Solvolysis of α -chloro-2-(trifluoromethyl)-benzyl chloroformate in Alcohols (EtOH, MeOH, acetone)

Maryeah Pavey, MAJOR (INBRE) (Wesley)
Malcolm D'Souza, Chemistry Department
TBD: Environmental Chemistry

Brett Sansbury, MAJOR (EPSCoR) (Wesley)
Malcolm D'Souza, Chemistry Department Wesley
TBD: Environmental Chemistry

Ashley Harmon, Biology (INBRE) (Wesley)
Malcolm & Tom D'Souza & Bauer, Chemistry Department, Wesley
Creating a Database on Esophageal and Bronchial Stents in Patients for New Connections

Annie O'Connor, Chemistry (INBRE) (Wesley)
Malcolm & Tom D'Souza & Bauer, Chemistry Department
Financial Analysis of the Use of tPA versus VATS for Treatment of Empyema in Adults

Andrew Dover, Chemistry/Chemistry Education (Chemistry Alumni)
Joseph Fox, Chemistry & Biochemistry
Intermolecular Vicinal Difunctionalization Reactions

Michael Estephan, Chemistry (Chemistry Alumni)
Catherine Grimes, Chemistry & Biochemistry
A Synthetic Approach to the Mechanism of CYR1p Activation in *Candida albicans*

Anne Sanger, Biomedical Engineering (HHMI/DE)
Catherine Grimes, Chemistry & Biochemistry
Interactions between NOD2's LRR Domain and MDP

Matthew White, Biochemistry (HHMI)
Charles Riordan, Chemistry & Biochemistry
Exploring Kinetics and Reactivity of a Superoxo-Nickel Trispyrazolylborate Complex

Carissa Smoot, Chemistry (Chemistry Alumni)
Joel Rosenthal, Chemistry & Biochemistry
Synthesis of Palladium Complexes for the Reduction of Carbon Dioxide

Justin Teesdale, Chemistry (Chemistry Alumni)
Joel Rosenthal, Chemistry & Biochemistry
BODIPY Appended Rhenium Based Molecular Platforms for Photocatalytic CO₂ Reduction

Sarah Frantz, Neuroscience (S&E)

Sharon Rozovsky, Chemistry & Biochemistry
Crystallization of GB1

Assem Abdel-Khalik, Chemistry (INBRE) (NUCLEUS)
Don Watson, Chemistry & Biochemistry
Enantioselective Reduction of Nitroalkanes

Melissa Morris, Chemistry (S&E)
Mary Watson, Chemistry & Biochemistry
The First Nickel Catalyzed Aryl C–O Bond Activation to Form 5–Membered Lactones

Naijing Su, chemistry (Chemistry Alumni)
Donald Watson, Chemistry & Biochemistry
Silyl Heck Reaction

Amanda Halstrom, Chemistry (S&E)
Meredith Wesolowski, Chemistry & Biochemistry
General Chemistry Laboratory Curriculum Development

Jacob Zimmerman, Chemical Engineering (S&E)
Meredith Wesolowski, Chemistry & Biochemistry
Lab Curriculum Project

Amanda Grigoli, Biological Sciences (HHMI/DE)
Zhihao Zhuang, Chemistry & Biochemistry
Diubiquitin: Linkage and Synthesis

Matthew Urban, Biochemistry (HHMI)
Zhihao Zhuang, Chemistry & Biochemistry
Molecular Mechanism of Eukaryotic Translesion Synthesis

Jennifer McCord, Chemistry (Chemistry Alumni)
Neal Zondlo, Chemistry & Biochemistry
Synthesis and Expression of Thiophenylalanine-Containing Proteins

Monica Pirigyi, Biochemistry (HHMI)
Neal Zondlo, Chemistry & Biochemistry
Synthesis of Functional Proteins via Bioconjugation

MATHEMATICAL SCIENCES

Jennifer Bruhns, Quantitative Biological Sciences (HHMI)
Richard Braun, Mathematical Sciences
Model for the Stroma in Cornea

Vikramjit Rathee, Chemical Engineering (S&E)
Richard Braun, Mathematical Sciences
Developing the Mathematical Models Regarding the Structure of Tear Film

Dylan Chap, Mathematical Sciences (NSF-REU)
Richard Braun, Mathematical Sciences
Image Processing of Lipid Microscope Images from the Tear Film

Michelle Markiewitz, Mathematics (S&E)
Sebastian Cioaba, Mathematical Sciences

Which Graphs are Determined by their Spectrum?

Matthew Moye, Quantitative Biological Sciences (NSF-REU)
Tobin Driscoll, Mathematical Sciences
Numerical Methods for Conservation Laws using ChebFun

Colleen Moens, Quantitative Biological Sciences (HHMI)
Pak-Wing Fok, Mathematical Sciences
Effect of Reverse Cholesterol Transport on the Development of Atherosclerotic Plaque

Michael Parvensky, Mathematics (S&E)
Wenbo Li, Mathematical Sciences
First-Exit Problem and Applications

Yi Zheng, Mathematics and Economics (S&E)
Louis Rossi, Mathematical Sciences
Field Interpolation with Reverse Heat Equation

Yucong Weng, Mathematics and Economics (S&E)
Francisco Sayas, Mathematical Sciences
Simulations of Flows and Waves using Integral Methods

Stephen Smith, Mathematics (S&E)
Qing Xiang, Mathematical Sciences
Number Theory and Additive Combinatorics

PHYSICS

Rohan Patel, Quantitative Biological Sciences (HHMI/DE)
Edward Lyman, Physics & Astronomy
Stability of Native vs. Mutant A2A Adenosine Receptor by Molecular Dynamics Simulation

Louis Campbell, Biology (EPSCoR) (DSU)
Mukti Rana, Physics, DSU
Design of a Two Level Micro Bolometer for Environmental Monitoring

ENVIRONMENTAL SCIENCE

Stephanie Carney, MAJOR (EPSCoR) (Wesley)
Bruce Allison, Environmental Studies, Wesley
TBD: Environmental Science

Taylor Hendricks, Biology (EPSCoR) (Wesley)
Bruce Allison, Environmental Studies, Wesley
A Comparison of the Effect of Agriculture and Forest Land Use On Soil Quality

Greg McKee, Environmental Science (EPSCoR) (Wesley)
Bruce Allison, Environmental Studies, Wesley
A GIS and Modeling Approach to Quantifying Nitrogen, Phosphorus, and Sediment Dynamics in the Sassafras River Watershed

Larry Meade, Biology (EPSCoR) (Wesley)
Bruce Allison, Environmental Studies, Wesley
Determining Nutrient Load Reductions and Native Plant Species for Implementing a Riparian Buffer at the Stockley Center

Melissa Savin, MAJOR (EPSCoR) (Wesley)
Bruce Allison, Environmental Studies, Wesley
A Successful Wesley College Environmental Science and City of Dover Collaboration; A Student Perspective

Kathleen Harris, Environmental Science (EPSCoR)
Jeremy Firestone, School of Marine Science and Policy
Public Opinions of Offshore Wind Power in New Jersey and Delaware

MARINE SCIENCE

Natalie Zielinski, Environmental Science (S&E)
Albert Kirwan, School of Marine Science and Policy
Ocean Circulation and Dynamics

Shannon Owings, Chemistry (S&E)
George Luther, School of Marine Science and Policy
Investigation of Nanoparticulate Pyrite and Elemental Sulfur in the Chesapeake Bay and Delaware Inland Bays

Danielle Lifavi, Environmental Science (EPSCoR)
Timothy Targett, School of Marine Science and Policy
Impacts of Shoreline Modification on the Use of Shoreline Habitats by Marine Organisms

Jonathan Dinman, Marine Science (S&E)
Mark Warner, School of Marine Science and Policy
Examining the Physiological Effects of Temperature Stress on the Symbiosis between *Symbiodinium* spp. and *Aiptasia pallida*

ENGINEERING – (Chemical and Biomolecular Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Computer and Information Sciences, Mechanical Engineering, Materials Sciences and Engineering, Center for Composite Materials, Catalysis Center for Energy Innovation)

CHEMICAL ENGINEERING

John Birmingham, Chemical Engineering (S&E)
Douglas Buttrey, Chemical and Biomolecular Engineering
Conversion of Butanol to 1,3-butadiene using Bi-Mo-O Catalysis

Lauren Carberry, Chemical Engineering (S&E)
Douglas Buttrey, Chemical and Biomolecular Engineering
Selective Oxidation with Bi-Mo-Sb-V Oxides for the Development of Commercial Catalyst

Hilary Davis, Chemical Engineering (S&E)
Wilfred Chen, Chemical and Biomolecular Engineering
Detection of Pathogens and Drug Discovery

Brianne Henry, Chemical Engineering (EPSCoR)
Wilfred Chen, Chemical and Biomolecular Engineering
Innovations in Biofuel Production Through GPCR Engineering

Zirui Zhen, Chemical Engineering (S&E)
Wilfred Chen, Chemical and Biomolecular Engineering
Artificial Cellulosomes on Linear DNA Scaffolds

Zachary March, Chemistry (HHMI)
David Colby, Chemical and Biomolecular Engineering
Biochemical Methods for the Detection and Structural Analysis of Misfolded tau

Matthew Hoffman, Chemical Engineering (S&E)
Thomas Epps, Chemical and Biomolecular Engineering
Morphological Explanation of Diblock Copolymers

Kevin Hutter, Chemical Engineering (S&E)
Thomas Epps, Chemical and Biomolecular Engineering
Chlorosilane Modification of Silicon Dioxide Surfaces for Self-Assembly of Triblock Copolymers

Ronald Lewis, Chemical Engineering (S&E)
Thomas Epps, Chemical and Biomolecular Engineering
Stem Cell Growth and Differentiation on Block Copolymer Thin Films

Ellen Reed, Chemical Engineering (S&E)
Thomas Epps, Chemical and Biomolecular Engineering
The Mixed-salt Effects on Ion Conductivity of Li-doped POEM-containing Diblock Copolymers

Eddie Sangern, Chemical Engineering (S&E)
Thomas Epps, Chemical and Biomolecular Engineering
Solvent Annealing of Polymer Thin Films During Casting

Benjamin Fogal, Chemical Engineering (S&E)
Eric Furst, Chemical and Biomolecular Engineering
Analysis of the Packing Behavior of Superdisks

Yifei Liu, Chemical Engineering (S&E)
Eric Furst, Chemical and Biomolecular Engineering
The Study on Packing of Superdisk

Thomas Cristiani, Chemical Engineering (S&E)
Christopher Kloxin, Chemical and Biomolecular Engineering
Iodo-ene Membranes for Fuel Cells

Eric Macedo, Chemical Engineering (S&E)
April Kloxin, Chemical and Biomolecular Engineering
Promoting Mesenchymal Stem Cell Alignment with Adhesion Sequence Patterning

Samantha Mannino, Chemical Engineering (S&E)
Christopher Kloxin, Chemical and Biomolecular Engineering
Material Healing in Polymers

Kyle Tucker, Chemical Engineering (EPSCoR)
Babatunde Ogunnaike, Chemical and Biomolecular Engineering
Optimizing Wind Turbine Power Output

Matthew Enterline, Chemical Engineering (S&E)
Christopher Roberts, Chemical and Biomolecular Engineering
Molecular Simulation of Protein Solutions

Sean Mack, Chemical Engineering (S&E)
Millicent Sullivan, Chemical and Biomolecular Engineering

Localization and Unpackaging of Polyethylenimine-based Polyplexes for Gene Delivery

CIVIL AND ENVIRONMENTAL ENGINEERING

Abigail Barber, Energy and Environmental Policy (EPSCoR)

John Byrne, Civil & Environmental Engineering

Comparing Sustainable Agriculture Practices in Delaware, Maryland, and Pennsylvania

Erin Laux, Environmental Engineering (EPSCoR)

Daniel Cha, Civil & Environmental Engineering

Biopolymer Producing Microorganisms from Wastewater Treatment

Jack Cardinal, Civil Engineering (S&E)

Michael Chajes, Civil & Environmental Engineering

Investigating Structural Engineering

Taylor Smith, Environmental Engineering (EPSCoR)

Steve Dentel, Civil & Environmental Engineering

Multiphase Biochemical Processes Utilizing Electrogenic Bacteria

Nicole Pappalardo, Civil Engineering (UDRF)

Julia Maresca, Civil & Environmental Engineering

Microbial Inhabitants of Concrete

Jordan Wynn, Civil Engineering (McNair)

Harry W. Shenton III, Civil & Environmental Engineering

TBA

ELECTRICAL AND COMPUTER ENGINEERING

Brian Gonzalez, Electrical Engineering (S&E)

Fouad Kiamilev, Electrical & Computer Engineering

Infrared Scene Projector (SLEDS)

Zhongshan Wen, Electrical Engineering (S&E)

Mark Mirotznik, Electrical & Computer Engineering

Fiber Bragg Grating Sensor

COMPUTER AND INFORMATION SCIENCES

Matthew Saponaro, Computer Science (S&E)

Keith Decker, Computer & Information Sciences

Three Dimensional Agent- Based Spring Model of Normal Colonic Crypt Development

Matthew Howard, Computer Science/Mechanical Engineering (S&E)

Lori Pollock, Computer & Information Sciences

Using Interprocedural Information in Automatic Comment Generation and Code Search

Jessica Chopyk, Biological Sciences (ASM Undergraduate Fellow)

Shawn Polson, Computer & Information Sciences

Metagenomic Analysis of DNA Polymerase I in Hydrothermal Vent Viral Assemblages

Sam Widmayer, Ecology (EPSCoR)

Shawn Polson, Computer & Information Sciences

Exploring the Eastern Oyster Microbiome: Surveying Bacterial and Viral Associates of Choptank River Populations

Trevor Newell, (EPSCoR) (DSU)
Tomasz Smolinski, Computer Information & Sciences, DSU
TBD: Bioinformatics

Michael Matheny, Computer Science (S&E)
Michela Taufer, Computer & Information Sciences
ExSciTech and Volunteer Computing

Matthew Wezowicz, Computer Engineering (S&E)
Michela Taufer, Computer & Information Sciences
Improving Software Modularity, Readability, and Usability of the Molecular Dynamics Code FEN ZI

MECHANICAL ENGINEERING

Zhongyang Liu, Mechanical Engineering (S&E)
Sunil Agrawal, Mechanical Engineering
Robotics

Benjamin Henry, Mechanical Engineering (S&E)
David Burris, Mechanical Engineering
Exploring the Biomechanical Reactions of Cartilage with Relation to Fluid Movement

Michael Meck, Mechanical Engineering (S&E)
Joshua Hertz, Mechanical Engineering
Understanding the Role of Carbon Nanotubes at the Substrate Silicon Electrode Film Interface

Victoria Stanhope, Exercise Science (S&E)
Jill Higginson, Mechanical Engineering
Impact of Walking on Cognitive Function

Laura van der Post, Mechanical Engineering (S&E)
Jill Higginson, Mechanical Engineering
Relationship between KOOS Scores and Quadriceps Strength

Molly Wessel, Biomedical Engineering (S&E)
Jill Higginson, Mechanical Engineering
Effects of Handrail Usage During Treadmill Walking in Post-Stroke Patients

Enoch Cheung, Biological Sciences (S&E/NUCLEUS)
Lucas Lu, Mechanical Engineering
The Protective Mechanism of Zolendronic Acid on Primary Chondrocytes

Anna Sung, Biomedical Engineering (S&E)
Lucas Lu, Mechanical Engineering
Investigation of Microfracture Surgery: From the Lab to Clinical Applications

Brandon Zimmerman, Mechanical Engineering (S&E)
Lucas Lu, Mechanical Engineering
Cartilage Biomechanics and Tissue Repair

Samuel Kurkoski, Mechanical Engineering (S&E)
Michael Santare, Mechanical Engineering
Environmental Conditions on Fuel Cell Membranes

Kevin Eckenhoff, Mechanical Engineering (S&E)

Erik Thostenson, Mechanical Engineering
Thin-Film Devices and Electrodes for Material Sensing

Timothy Hagenbach, Chemical Engineering (S&E)
Erik Thostenson, Mechanical Engineering
Anisotropic Active Nanostructures

Sarah Masters, Mechanical Engineering (S&E)
Erik Thostenson, Mechanical Engineering
Graphene Synthesis: Processing Graphite Oxide and Investigating the Damage Sensing Capabilities of Graphene-Based Composites

Matthew Sinnott, Mechanical Engineering (S&E)
Erik Thostenson, Mechanical Engineering
Vascular Self-Healing and Damage Detection in Composite Glass Panels

MATERIALS SCIENCES AND ENGINEERING

Kevin Chang, Biomedical Engineering (INBRE)
Kristi Kiick, Materials Science & Engineering
PEG-RLP Characterization

Ryan Mitchell, Biomedical Engineering (S&E)
Kristi Kiick, Materials Science & Engineering
Optimization and Tunable Degradation of Resilin-Based Elastomers

Evan Phillips, Mechanical Engineering (S&E)
David Martin, Materials Science & Engineering
Charge Carriers and Their Roles in PEDOT

Brandon Stewart, Chemical Engineering (S&E)
Darrin Pocahn, Materials Science & Engineering
Cancer Drug Delivery by Hydrogel: Diffusion vs Erosion

Jaymin Modi, Biomedical Engineering (S&E)
Darrin Pochan, Materials Science & Engineering
Biological Effects on Cells of Encapsulation in Beta-hairpin Hydrogel Matrix and Subsequent Shear Thinning/rehealing Injection

Peter Attia, Chemical Engineering (S&E)
Joshua Zide, Materials Science & Engineering
Thermoelectric Power Generation in Transient Temperature Environments

CENTER FOR COMPOSITE MATERIALS

Andrew Caulfield, Mechanical Engineering (CCM)
Bazle Haque, CCM
TBA

Francis Fish, Mechanical Engineering (CCM)
John Tierney, CCM
SMARTree

Kenneth Goydan, Computer Engineering (CCM)
John Tierney, CCM

TBA

Christopher Hewitt and Christine Sauerbrunn, Mechanical Engineering (CCM)
Shridhar Yarlagadda, CCM
Compression Truss Reinforced Load Bearing Vest

Joseph Iannacci, Civil Engineering (CCM)
Suresh Advani, Mechanical Engineering
TBA

Kyung Bin Lee, Engineering (CCM)
Jonghwan Suhr, Mechanical Engineering
TBA

Kenneth Manley, Mechanical Engineering and Meredith Steenkamer, Chemical Engineering (CCM)
Shridhar Yarlagadda, CCM
Suspenders Inspired Textile Support Structure

Joel Monza, Mechanical Engineering and Ben Natrin, Civil Engineering (CCM)
Shridhar Yarlagadda, CCM
Variable Stiffness Load Bearing Segments

Iuliana Murgescu, Electrical Engineering (CCM)
John Tierney, CCM
TBA

Devin Prate, Mechanical Engineering (CCM)
Jonghwan Suhr, Mechanical Engineering
Characterization of the Mechanical Properties of Graphene Nanocomposites

Alan Radojic, Mechanical Engineering (CCM)
Dirk Heider and Erik Thostenson, CCM
Damage Sensing Materials Using CNT-Sheets

Emily Readdy, Biomedical Engineering (CCM)
Suresh Advani, Mechanical Engineering
Temperature and Pressure Effects on Resin Viscosity

Richard Stanton, Mechanical Engineering (CCM)
Bazle Haque, CCM
TBA

CATALYSIS CENTER FOR ENERGY INNOVATION

Shuting Feng, Chemical Engineering (REU)
Dion Vlachos, Chemical and Biomolecular Engineering
Dehydration Chemistry-Proton Affinity Database

Christopher Ho, Chemical Engineering (REU)(University of Minnesota)
Stanley Sandler, Chemical and Biomolecular Engineering
Optimization of Furfural Production

Juan Lucio-Vego, Chemical Engineering (REU)
Dion Vlachos, Chemical and Biomolecular Engineering
Cycloaddition of Biomass-derived Ffurans for the Production of Terephthalic Acid: A DFT Study

George Peklaris, Chemical Engineering (REU)(University of Massachusetts)
Dion Vlachos, Chemical and Biomolecular Engineering
Effects of pH and Temperature on Sugar Dehydration Chemistry

Andrew Shah, Chemical Engineering (REU)
Dion Vlachos, Chemical and Biomolecular Engineering
Investigation of the Adsorption of Carbohydrates and Furans in Microporous Catalysts

Evan Sohodski, Chemical Engineering (REU)
Dion Vlachos, Chemical and Biomolecular Engineering
Reactive Adsorption Studies of Fructose Dehydration to Maximize the HMF & Levulinic Acid Yields

HUMAN SCIENCES – (Medical Technology, Histotechnology, Physical Therapy, Kinesiology and Applied Physiology)

MEDICAL TECHNOLOGY

Michelle Francis, Medical Technology (INBRE/NUCLEUS)
Mary Ann McLane, Medical Technology
In Vitro Melanoma Cell Motility in the Presence of Eristostatin

Shelby Guhl, Medical Technology Interest (S&E)
Michelle Parent, Medical Technology
Identifying Gastrointestinal Tissue Damage and Innate Immunity in Response to *Vibrio parahaemolyticus* Infection

Kathleen Seip, Biochemistry (INBRE/HHMI)
Michelle Parent, Medical Technology
Investigate How *Vibrio parahaemolyticus* Peptide Probes interact With NOD1, Resulting in Mammalian Cell activation

HISTOTECHNOLOGY

Venus Joseph, Histotechnology (INBRE) (Delaware Tech)
Carole Barone, Nemours Histochemistry
Differential Effect of Paraformaldehyde Fixation on IHC staining of Pepsinogen

Rebecca Berger, Histotechnology (INBRE) (Delaware Tech)
Elena Rodriguez, Nemours Histochemistry
Histological Changes in the Lungs and Diaphragms between Wild Type Mice and Affected Mice

PHYSICAL THERAPY

Christopher Cutsail, Exercise Science (S&E)
Stuart Binder-Macleod, Physical Therapy
Using Submaximal Contractions to Predict the Maximum Force-Generating Ability of Muscles in Post-Stroke Individuals

Michelle Luta, Medical Technology (INBRE/NUCLEUS)
Cole Galloway, Physical Therapy
Motor Behavior in Disabled Infants

Kylee Stahlin, Biological Sciences (S&E/NUCLEUS)
Cole Galloway, Physical Therapy
Feasibility of Ride-on Cars to Advance Mobility and Development of Infants With Mobility Disorders in the Home Setting

Lucas Brady, Health Sciences (INBRE)
Darcy Reisman, Physical Therapy
Motor Learning after Stroke

Joseph Grieco, Biological Sciences (Peter White)
Lynn Snyder-Mackler, Physical Therapy
The Effect of Perturbation Training on the Support Moment of ACL Deficient Subjects

KINESIOLOGY AND APPLIED PHYSIOLOGY

Kevin Colodner, Biological Sciences (S&E)
William Farquhar, Kinesiology & Applied Physiology
Neurocirculatory Responses to Muscle Contraction in Hypertension

Ashli Bottino, Exercise Science (McNair)
Thomas Kaminski, Kinesiology & Applied Physiology
Examination of Time to Stabilization Following the Application of Kinesio Tape to the Gluteal Muscles in Healthy Female Subjects

Kevin Lenoir, Earth Ocean & Environment (INBRE)
Chris Knight, Kinesiology & Applied Physiology
Rates of Neuromuscular Stimulation at Different Cycling Cadences

Robert Harper, Exercise Science (INBRE) (Delaware Tech)
Mark Lafferty, DEPARTMENT, DTCC
Evaluation of Resting Metabolic Rate and Anaerobic Threshold before and after a High Intensity Workout

Michael Porter, Exercise Physiology (S&E)
Christopher Modlesky, Kinesiology & Applied Physiology
Development of a DXA-based Mathematical Model to Estimate Muscle Mass in Children with Cerebral Palsy

Gregory Gillispie, Exercise Science (S&E)
William Rose, Kinesiology & Applied Physiology
The Effects of Heating and Cooling on Blood Pressure and Brain Blood Flow

Thomas Heaney, Biology (INBRE) (Delaware Tech)
Tom Blackson, Clinical Respiratory Department, Christiana Care
Evaluation of a Commercially Available Device for Restoring Endotracheal Tube Patency Following Partial Biofilm Obstruction: Clinical Use and Implications

Heather Thomas, Biology (INBRE) (Delaware Tech)
Joe Ciarlo and Tom Blackson, Clinical Respiratory Department, Christiana Care
The Role of Acoustic Reflectometry in Evaluation of Endotracheal Tube Patency: An "In-Vitro" Comparison of Assessment Techniques Used to Evaluate Airway Resistance Caused by Endotracheal Tube Biofilm Formation

SOCIAL SCIENCES – (Psychology, Linguistics and Cognitive Science, Behavioral Health and Nutrition, Nursing, Food and Resource Economics, Policy and Ethics, Sociology and Criminal Justice)

PSYCHOLOGY

Leanne Keller, Psychology/Cognitive Science (S&E)
Mary Dozier, Psychology
Memory Functioning in Post Institutionalized Children

Deangie Davis, Psychology (McNair/NUCLEUS)

Beth Morling, Psychology
The Role of Bicultural Identity of Latin Women in North America

LINGUISTICS & COGNITIVE SCIENCE

ToriAnne Davies, Cognitive Science (S&E)
Roberta Golinkoff, Linguistics & Cognitive Science
The Relationship between Spatial Knowledge and Academic Achievement in Organic Chemistry

Amira Parker, Cognitive Science (INBRE/NUCLEUS)
Roberta Golinkoff, Linguistics & Cognitive Science
Building Vocabulary in Disadvantaged Preschoolers

Megan Rosales, Cognitive Science (S&E)
Irene Vogel, Linguistics & Cognitive Science
The Effects of Contrastive Vowel Length on Stress

BEHAVIORAL HEALTH AND NUTRITION

Olivia Cosides, Biological Sciences (S&E)
Mia Papas, Behavioral Health & Nutrition
Influence of Fast Food and Away from Home Food Use in Early Childhood

Alyssa Atanacio, Dietetics (INBRE/NUCLEUS)
Jillian Trabulsi, Behavioral Health & Nutrition
Energy Balance in Infants with 'Rapid' versus 'Normal' Weight Gain

NURSING

Tyler Sharp, Psychology (McNair/NUCLEUS)
Regina Sims, School of Nursing
Trait Mindfulness and Depressive Symptomatology Relations among African Americans

FOOD AND RESOURCE ECONOMICS

Walker Jones, Agricultural Business and Economics (CANR) (Virginia State University)
Kent Messer, Food & Resource Economics
Disamenity of Offshore Wind Turbines

Seth Olson, Agriculture and Natural Resources (EPSCoR)
Kent Messer, Food & Resource Economics
Overcoming Obstacles to Adopting Environmentally Friendly Technology: An Economic Study of Wind Power and Optimal Conservation Selection

POLITICAL SCIENCE

Nicole Seymour, Political Science (McNair/NUCLEUS)
Jason Mycoff, Political Science & International Relations
Voter ID Laws: Protection or Suppression

POLICY AND ETHICS

Sara Hines, Biology (EPSCoR) (Delaware Tech)
Tom Powers, Philosophy
Scientific Policy and Ethics

SOCIOLOGY AND CRIMINAL JUSTICE

Quindara Lazenbury, Psychology Education (McNair)

Benigno Aguirre, Sociology and Criminal Justice
What's that Smell? Environmental and Urban Communities

EDUCATION – (Arts, Cooperative Extension, Environmental Education, Early Childhood Education, Teacher Education)

ARTS

Alison Gerni, History Education (ArtsBridge)
Lynnette Overby, UREL
History and Sports

Heather Wadler, Music Education (ArtsBridge)
Lynnette Overby, UREL
Solve Me a Song

Jacqueline Bryk, MAJOR (ArtsBridge)
Lynnette Overby, UREL
Community Partner: Cab Calloway
Cab Calloway Summer School for the Arts

COOPERATIVE EXTENSION

Andrea Vilorio, Human Services (Extension Scholars)
Doug Crouse, Kent County Cooperative Extension
Gathering Wisdom from 4-H Development Clubs

ENVIRONMENTAL EDUCATION

Olivia Hampton, Biology (INBRE) (Wesley)
Malcolm D'Souza, Chemistry Department, Wesley
Interpretation as a Tool for Getting Kids into Nature

EARLY CHILDHOOD EDUCATION

Yoo Yoo, Early Childhood Education (UUS)
Cynthia Paris, Human Development & Family Studies
What's in a Picture Book? A Study of High-Quality, Interactive Picture Books and Key Elements to Construction

TEACHER EDUCATION

Saisri Gajjala, Engineering; Kathryn Kull, Psychology Education, and Kevin Nai, English Education (UD ASPIRE: Launching Academic Leaders at Newark High School)
Melva Ware, DE Center for Teacher Education
Community Partner: Newark High School
All Students Aspire (ASA) Peer Learning Strategies to Improve Efficacy

Oral Presentations

9:00 – 10:00 Oral Session 1

INTERNATIONAL RELATIONS

(Room 119)

Moderator: TBA

Abigail Scout, Political Science/Public Policy (Social Sciences)

Jennifer Lobasz, Political Science and International Relations

Human Trafficking and the Military: A Policy and Discourse Analysis of the United States Army's Approach to the TVPA

Samuel Battista, International Relations/Spanish (Social Sciences)

Julio Carrion, Political Science and International Relations

Peru: The Influence of Elites on the Formation of Populism

Elmer Wills, Political Science (Social Sciences)

Julio Carrion, Political Science and International Relations

Elite Factors Impeding the Establishment of Populism in Colombia

Keara Farrelly, International Relations/Spanish (Social Sciences)

Julio Carrión, Political Science and International Relations

The Persistence of Populism in the Andes

COMMUNICATION

(Room 120)

Moderator: Ralph Begleiter, Director, Center for Political Communication

Michelle Morreale, International Relations/History (Social Sciences)

Paul Brewer, Communication

News Coverage of Stephen Colbert's Super PAC and Public Opinion

Ruby Harrington, Political Science (Social Sciences)

Paul Brewer, Communication

Perceptions Regarding the Authenticity of Online Political Communication

Nicole Vandevliet, Communication/Political Science (Social Sciences)

Dannagal Young, Communication

Political Personalities, Ironic Isn't It?

COGNITIVE SCIENCE AND PHILOSOPHY

(Room 121)

Moderator: TBA

Ben Falandays, Philosophy/Psychology (Arts & Humanities)

Fred Adams, Linguistics and Cognitive Science

Empirical Evidence for Embodied Cognition

Jordan Lennox, Philosophy/Psychology (Arts & Humanities)

Fred Adams, Linguistics and Cognitive Science

Survey and Analysis of Experimental Research Supporting or Rejecting the Embodied Cognition Thesis

Christopher Hartung, Philosophy (Arts & Humanities)

Katherin Rogers, Philosophy

MUSIC/SPOKEN WORD/LANGUAGE ACQUISITION

(Room 123)

Moderator: TBA

Ignacio Angulo-Pizarro, Music Education (McNair)

Duane Cottrell, Music

An Analysis of Joby's Talbot's Path of Miracles

Helga Morris, Music Composition (Arts & Humanities)

Philip Duker, Music

Investigating Jazz Transcription: One Student's Methods and Results

Ellenie Cruz, English Education (McNair/NUCLEUS)

Shuaib Meacham, School of Education

Spoken Word as a Method for Social Change

Maria Marquez, ELL/SPL (McNair)

Roberta Golinkoff, School of Education

L2 Acquisition Barriers: Considering Lexicalization Biases

PEDAGOGY AND PUBLIC POLICY

(Room 125)

Moderator: Robert Hampel, Director, School of Education

Elena Miller, English Education (Social Sciences)

Laura Eisenman, School of Education

Practices in Inclusive Education: Examining Instructional Methods in the Collaborative- Consultation Model

Rachel Schotz, English Education (Social Sciences)

Jill Flynn, English

Speaking Up And Speaking Out: Long-term Impact of Critical Multicultural Curriculum

Anh Nguyen, Cognitive Science/Psychology (McNair)

Carol Wong, School of Education

Self Regulation Inspires Time Management

Kelsey Schultz, Public Policy (Service Learning)

Daniel Rich, Public Policy and Administration

Community Partner: KIPP Baltimore

KIPP Baltimore Service Learning Project

10:10 – 11:10 Oral Session 2

TEACHING

(Room 119)

Moderator: Carol Vukelich, Center Director, Delaware Center for Teacher Education

Rebecca Godwin, Early Childhood Education (Social Sciences)

Cynthia Paris, Human Development and Family Studies

Maneuvering through the Thought Stream: Utilizing Preschoolers' Thoughts about Thoughts

Sara Peralta, Elementary and Special Education (Extension Scholars)

Katie Daly-Jones, New Castle County Cooperative Extension

Through the Minds of Children: A 4-H Internship Experience

Sophie Bandlow, Elementary Teacher Education (Service Learning)
Eugene Matusov, School of Education
Community Partner: Boys and Girls Club Wilmington
Play and Learn

Amber Beaman, Elementary Teacher Education (McNair)
James Hiebert, School of Education
Making Connections Around the World with the Teachings of Mathematics: A Comparative Study of How Math is Taught in Different Countries

SOCIOLOGY AND CRIMINAL JUSTICE

(Room 120)

Moderator: TBA

Ashlee Johnson, English (Social Sciences/NUCLEUS)
Yasser Payne, Black American Studies
Exploring the School to Prison Pipeline in Delaware's Inner City

James Highberger, Criminal Justice (McNair)
Chrysanthi Leon, Sociology and Criminal Justice
Family Members and Incarceration: A Brief Survey

Dana Yeliseyev, Sociology/International Relations (Social Sciences)
Eric Tranby, Sociology and Criminal Justice
The Evolution of Understandings of Human Sexuality in the Political and Religious Spectrum

Rachel Bacon, Sociology/Geography (Social Sciences)
Eric Tranby, Sociology and Criminal Justice
Demographic Change in the Seventh-Day Adventist Church in North America

HISTORY/ECONOMICS

(Room 121)

Moderator: TBA

Ian Lawrence, History (Arts & Humanities)
Daniel Callahan, History
The Development of the Knights Templar from Poor Partnership to European Power

Alexander Minore, History/Political Science (Arts & Humanities)
Daniel Callahan, History
Normans and the Papacy: An Examination of the Connections That Influenced the Conquest of England

Andrew Shermeyer, History (Arts & Humanities)
Lawrence Duggan, History
Perceptions of The Crusades In History

Lauren Huston, History/Economics (Social Sciences)
Farley Grubb, Economics
Land-backed Mortgages as a System of Exchange in 18th Century Colonial America

OLDER ADULTS

(Room 125)

Moderator: TBA

Natasha Gaston, Cognitive Science (UUS/NUCLEUS)

Regina Sims, School of Nursing
Attitudes towards Auditory Health in African American and Caucasian Older Adults

Caitlin O'Hanlon and Kristin Yurkanian, Health Behavior Science (Service Learning)
Elizabeth Orsega-Smith, Behavioral Health and Nutrition
Community Partner: Claymore Senior Center
Older Adults and Exergames

Brittany Drazich, Nursing, Paula Kalksma and Whitney Harris, Health Behavior Science (Service Learning)
Elizabeth Orsega-Smith, Behavioral Health and Nutrition
Community Partners: Howard Weston Senior Center and Union Hospital
Older Adults and Exergames

Kendall Poole, Exercise Science (INBRE/McNair)
Christopher Knight, Kinesiology and Applied Physiology
Physical and Cognitive Quickness Training in People with Parkinson's Disease

11:20 – 12:35 Oral Session 3

SCIENCE

(Room 128)

Moderator: TBA

Andrew Agostini, Psychology/Neuroscience (McNair/NUCLEUS)
Jeffrey Rosen, Psychology
Neural Circuitry of conditioned and Unconditioned Fear: Effects of Lesions of the Bed Nucleus of the Stria Terminalis

Angelica Montes, Medical Technology (McNair/NUCLEUS)
Chris Church, MPT and Dr. Kathleen O'Brien, MD
Single Leg Squat Test Validation and Natural History in Active Children Age 8 to 17 Years

Michael Rowley, Exercise Science (S&E)
James Richards, Kinesiology & Applied Physiology
The Effect of Plantarflexion Angle on Landing Mechanics using a Within-Subjects Real-Time Feedback Protocol

Maya Althouse, Entomology (Extension Scholars)
Debbie Delaney, Entomology and Wildlife Ecology
Honey Networking: Production to Marketing--How to Make Your Honey Sweeter

Andrew Kness, Plant Science (Extension Scholars)
Brian Kunkel, Entomology and Wildlife Ecology
Integrated Pest Management of Various Insect Species on Nursery Crops and Ornamental Plants

ARTS POLICY AND MUSIC

(Room 119)

Moderator: TBA

Jenna Knaster, Music Education (Arts & Humanities)
Suzanne Burton, Music
Staying in Tune with Music Education: Policy Awareness Among Undergraduate Students

Maria Knieste, Music Education (Arts & Humanities)
Suzanne Burton, Music
Staying in Tune with Music Education: Policy Awareness Among Undergraduate Students

Sarah Kutash and Matthew Marion, Music Education (Service Learning)
Suzanne Burton, Music
Community Partners: Christina and Red Clay School Districts
ProjectMUSIC

Audrey Wright, History/ Economics (Arts & Humanities)
Lynnette Overby, Theatre
Government Support for Dance Education

FAMILY INTERVENTION

(Room 120)

Moderator: Gregory Miller, Chair, Psychology

Megan Blackwell and Elisabeth Neely, Psychology (Service Learning)
Mary Dozier, Psychology
Community Partner: New Directions Early Head Start and the Consuelo Foundation
Enhancing Fidelity Among Parent Educators

Julia Cusano and Alyssa Dinnigan, Psychology (Service Learning)
Mary Dozier, Psychology
Community Partner: New Directions Early Head Start and the Consuelo Foundation
Enhancing Fidelity Among Parent Educators

Anna Davis, Psychology (Service Learning)
Ryan Beveridge, Psychology
Community Partner: Delaware Children's Department Division of Prevention and Behavioral Services
Clinician Assistant and Dissemination Researcher for the Parent-Child Interaction Therapy (PCIT) effort at Delaware's B.E.S.T.

Jaymie Silverman, Human Development and Family Studies and Lauren Tedeschi, Psychology (Social Sciences)
Christine Ohannessian, Human Development and Family Studies
Adolescent Adjustment Project: Parental Alcoholism & Adolescent Anxiety

URBAN COMMUNITIES

(Room 125)

Moderator: Carol E. Henderson, Chair, Department of Black American Studies

Brooklyn Hitchens, English/Black American Studies (McNair)
Yasser Payne, Black American Studies
Brenda's Got a Baby: Single Motherhood in the Streets

Rachel Miller, Human Development and Family Studies (Social Sciences)
Bahira Trask, Human Development and Family Studies
Co-parenting and Nutrition among Low-Income Families

Vincent Fronczkowski and Emily Justice, Health and Physical Education (Service Learning)
Karen Edwards, Behavioral Health and Nutrition
Community Partner: Girls Inc.
Using Fitness Components to Enhance Body Systems Knowledge

Ashley Evans, History (McNair)
Aaron Kupchik, Sociology and Criminal Justice
Library Usage in Differing Communities

Tyler Sharp, Psychology (McNair/NUCLEUS)
Regina Sims, School of Nursing

1:30 – 2:30 Oral Session 4

ART AND DESIGN

(Room 119)

Moderator: William Deering, Art

Cassy Galon, Art (Service Learning/NUCLEUS)

Jonathan Cox, Art

Community Partner: Supporting Kidds

Shining the Light: The Power of Visual Communications in the Community

Amelia Wang, Visual Communications (Arts & Humanities)

Jonathan Cox, Art

The History, Development, Ethics, Use, and Effects of Documentary Photography

Shawn DiCriscio, Fine Arts (Arts & Humanities)

Amy Hicks, Art

Digital Frontier

Abigail Stenner, Apparel Design (Arts & Humanities)

Belinda Orzada, Fashion and Apparel Studies

The Study of Accessories for the Common Threads Exhibition

DISABILITIES

(Room 120)

Moderator: TBA

Arianna Morton, Medical Technology (UUS/NUCLEUS)

James Galloway, Physical Therapy

Ride on Cars to Advance Mobility and Development

Kelly Burke, Music Education (Arts & Humanities)

Suzanne Burton, Music

Effects of Music on Speech and Language Acquisition in Children with Developmental Disabilities and Language Delays

Meaghan Arsola, Health and Physical Education and Alana Pantale, Health Behavior Science (Service Learning)

Janice Bibik, Behavioral Health and Nutrition/Iva Obrusnikova, Behavioral Health and Nutrition

Community Partner: Delaware Adapted Sports Club and Paws for People

A Comparison of Peer Interaction and Therapy Dog Interaction during Physical Activity in Children with Autism Spectrum Disorders

Alexandra Bennett and Rebecca Orendorf, Health Behavior Science (Service Learning)

Iva Obrusnikova, Behavioral Health and Nutrition

Community Partners: Delaware Adapted Sports Club and Paws for People

A Comparison of Peer Interaction and Therapy Dog Interaction to Promote Physical Activity in Children with Autism Spectrum Disorders

HUMAN DEVELOPMENT

(Room 121)

Moderator: TBA

Gabrielle Simonette, Early Childhood Education (Social Sciences)

Nancy Weiss, Human Development and Family Studies

Defining What Makes Leaders Progressive in the Disabilities Field

Audrey Rossi, Human Services (Social Sciences)
Nancy Weiss, Human Development and Family Studies
Analysis of Failed Leadership

Mary Jean Rainsford, Human Services (Social Sciences)
Nancy Weiss, Human Development and Family Studies
What You See is What You Get: The Effects of Leaders' Perceptions on Their Ability to Succeed

Polly Reinicker, Human Services and Psychology (Social Sciences)
Barbara Settles, Human Development and Family Studies
Inventory of Sex Education and Reproductive Health Resources in Upper Delaware

CULTURE AND IDENTITY **(Room 125)**
Moderator: TBA

Arpita Mandal, English Education (Arts & Humanities/NUCLEUS)
Michael Cotsell, English
Diversity and Various Issues of Identity and Representation in Fictional Islamic Literature

Kristin Rowe, English/Black American Studies (Arts & Humanities)
Carol Henderson, English
African American Children's Literature (1965-1975) and Identity Formation

Omar Duran, Art History/Latin American Studies (McNair)
Phillip Penix-Tadsen, Foreign Languages and Literatures
Beautiful Subversion: Representation of Latin American Women as Murderers in *Mujeres Asesinas*

Samantha Albanese, Spanish Studies (Social Sciences/NUCLEUS)
Phillip Penix-Tadsen, Foreign Languages & Literatures
Gang Violence: A Cultural Production in Mexico

2:40 – 3:55 Oral Session 5

ENGLISH/ANTHROPOLOGY **(Room 119)**
Moderator: Iain Crawford, Acting Chair, English

Levi Sikes, English (Arts & Humanities)
Martin Brueckner, English
19th Century Travels to the Holy Land and American Geo-Spiritual Recapitulation

Cosimo Faella, English Education (Arts & Humanities)
Martin Brueckner, English
The Western Ideal: Shaping Literature and Imagination in America

Justine Hofherr, English (Arts & Humanities)
Iain Crawford, English
Harriet Martineau and Charles Dickens' Response to the American Civil War

Darcy DePetris, Anthropology (Social Sciences)
Jay Custer, Anthropology
Analysis of Early Ceramics and Fire Cracked Rock, Snapp Site, Delaware

Casey Homes, Anthropology/Linguistics (Social Sciences)

Peter Roe, Anthropology

Study of the Donated Lengua Tribal Collection: Cataloging, Examination, Reconstruction, Expansion

ARTS OUTREACH

(Room 120)

Moderator: Joann Browning, Associate Dean, College of Arts and Sciences

Melissa Miller and Megan Millman, Art Conservation (Service Learning)

Vicki Cassman, Art Conservation

Community Partner: Winterthur Museum

Winterthur Museum Terrific Tuesday Summer Program

Teagan Thomas, Elementary Education (ArtsBridge)

Lynnette Overby, Office of Undergraduate Research and Experiential Learning

The Way We Move!: Interdisciplinary Integration of Transportation Through Dance in 5th Grade

Sarah Janus, History Education (ArtsBridge)

Lynnette Overby, Office of Undergraduate Research and Experiential Learning

Living History

Jennifer Ferris, History Education (ArtsBridge)

Lynnette Overby, Office of Undergraduate Research and Experiential Learning

Social Studies and the Stage

POLITICAL SCIENCE

(Room 121)

Moderator: TBA

N'Kosi Oates, Communication/Political Science (McNair/NUCLEUS)

Theodore Davis, Political Science and International Relations

The New Great Migration

Gifted Abraham, History (Social Sciences)

Theodore Davis, Jr., Political Science and International Relations

A Study on the Efficacy of Micro-Goals in Combating Extreme Poverty

Alexandra Davis, Public Policy/International Relations (UUS/NUCLEUS)

David Wilson, Political Science and International Relations

Assessing Student Opinions of Diversity at UD

Nicole Mozee, Political Science/Spanish (McNair)

Gretchen Bauer, Political Science and International Relations

The Symbolic Representation of Women by Women in the DE Legislature

CHEMISTRY and MATHEMATICAL SCIENCES

(Room 125)

Moderator: TBA

Stanley Anderson, Engineering (UUS)

Joel Rosenthal, Chemistry and Biochemistry

Increasing the speed of Fisher-Trosch reactions with Solar Thermal Energy

Min Song, Chemical Engineering (McNair/NUCLEUS)

John Koh, Chemistry and Biochemistry

Covalent Modification of the Coactivators Site of the Human Androgen Receptor

Greg Darone, Chemistry Education (S&E)

Svilen Bobev, Chemistry and Biochemistry
Doping of Thermoelectric Materials for Increased Complexity or Disorder

Christopher Flores, (Visiting Scholar) (Kean University)
Francisco Javier, Mathematical Sciences
TBA

Donors and Contributors

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Community Partners

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Christiana Care Health System
Christina School District: Newark High School, Shue-
Medill Middle School, and Thurgood Marshall
Elementary School
Claymore Senior Center
Consuelo Foundation
Delaware Children's Department, Division of
Prevention and Behavioral Services
Delaware Humanities Forum
Girls, Inc. of Delaware
Howard Weston Senior Center
Indigenous Pitch Dance Collective
KIPP: Baltimore
Kuumba Academy Charter School
Nemours/Alfred I. duPont Hospital for Children
New Directions Early Head Start
Paws for People
Red Clay School District: Richardson Park Elementary
Supporting Kidds
UD Early Learning Center
Winterthur Museum, Garden and Library

Other Contributors

ArtsBridge Scholars Program
Burnaby Munson
Charles Peter White Fellowships
Chemistry Alumni Fellowships
Network of Undergraduate Collaborative
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DANA Foundation
David A. Plastino
Department of Defense Program
Gale Cengage Learning
Howard Hughes Medical Institute's Undergraduate
Science Education Program
National Institute of Health's Institutional
Development Award Networks of Biomedical
Research Excellence (INBRE)
National Science Foundation's Experimental Program

Acknowledgements

Alliance of Summer Scholars Program Members

Lynnette Overby, Faculty Director, Office of Undergraduate Research and Experiential Learning
Jacqueline Aldridge, Assistant Dean, College of Arts & Sciences & NUCLEUS
Louise Bank, Assistant Director, Graduate and Professional Education
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Rosalind Johnson, Director, Arts & Humanities Summer Institute & NUCLEUS
Meg Meiman, Program Director, Undergraduate Research Program
Jeanette Miller, Associate Director, Delaware Environmental Institute
Mary Ann Null, Office Coordinator, Undergraduate Research Program
Maria Pautler, Coordinator, College of Agriculture and Natural Resources Summer Institute
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And finally, we would like to thank all of the University of Delaware faculty sponsors who have been working with and mentoring undergraduate students this summer.