Dear Friends of Undergraduate Research and Engaged Learning:

Welcome to the ninth annual Celebratory Symposium for students in our Summer Scholars program. With over five hundred presenters, this is our largest event ever, and we are very excited to share their work with you. And we are delighted to be able to do so in the heart of the main campus in the Patrick T. Harker ISE Lab – our special thanks go to Dr. John Jungck, Director of the ISE Lab, for kindly hosting us in this wonderful facility.

As the Symposium program demonstrates, these students have worked on an extraordinary range of projects in disciplines all across the university as well as in the community. Over the past ten weeks, they have collaborated with their faculty mentors and, in many cases, with other undergraduates and with graduate students, learning how original research takes place and creating new knowledge themselves. Continuing UD’s nature as an engaged campus, many of them have worked with a wide range of external partners, translating research into action that both benefits community agencies and provides the students themselves with deepened understandings of the ways in which they can contribute and learn from their service. National studies of undergraduate research and experiential learning have shown time and again that these experiences can be the most powerful part of a student’s education, shaping his or her life and career for decades to come.

Both today’s event and the summer program itself would not be possible without the extraordinary support of people and offices across our campus. I particularly want to call out for thanks to the staff of the Undergraduate Research Program as well as the members of the faculty and staff throughout UD who volunteer their time and expertise to mentor students in the opportunities and responsibilities that go with conducting original research and service projects.

On behalf of all these members of the UD community, thank you for joining us at today’s program. We hope you will enjoy seeing and hearing the fruits of the students’ work and take away an even deeper appreciation for the intellectual accomplishments, creative achievements, and service contributions they make to the University of Delaware and its wider community.

Sincerely,

Iain Crawford
Faculty Director, Undergraduate Research and Experiential Learning
August 2018

Dear Colleagues and Friends:

Welcome to the University of Delaware’s ninth annual Undergraduate Research and Service Scholar Celebratory Symposium, which concludes this year’s Summer Scholars Program presentations. Over the past 10 weeks, more than 500 student researchers have worked with faculty mentors and community partners on a wide variety of projects representing disciplines across the University. These students have discovered the challenges and excitement of creating new knowledge in collaboration with faculty and other researchers.

We know that engaging in mentored research can be a life-changing experience. In fact, studies have shown that these types of experiences are among the most important forms of learning. Students in these programs can further their research as graduate students or use this experience as a foundation when they move into their professional careers. Regardless of the path they choose, they can look back on the months spent in this program as among the most intensive and successful of their educational journey.

On behalf of the University, I thank everyone who has made undergraduate research possible, including the staff of the Undergraduate Research Program, faculty, mentors and community partners. We are a leading research university in large part because of our talented and hard-working students, who have demonstrated courage and enthusiasm, as well as the willingness to push the boundaries of understanding and knowledge. As a University, we are exceptionally proud of the accomplishments of these students, and I look forward to seeing what comes next.

Sincerely,

Robin W. Morgan
Provost
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**Explanation of Program Entries**

- **Student Name**: John Doe
- **Major**: Biomedical Engineering (LS) (UD)
- **Faculty Mentor Name**: Joe Smith
- **Faculty Mentor Department**: Biomedical Engineering
- **Home University (if not UD)**: University of Delaware

**Project Title**: Identification of Early Through Late-Stage Changes in Murine Articular Chondrocyte Biology Following Joint Destabilizing Surgery

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**Key to Abbreviations**

- ACCEL: Accelerating Clinical Science Partnerships and Translational Research
- ADaPT: Advancing Diversity in Physical Therapy
- AHSS: Arts, Humanities, & Social Sciences
- ANFS: Animal & Food Sciences
- ASU: Arizona State University
- BHF: Blue Hen Fellow
- BMED: Department of Biomedical Engineering
- CANR: College of Agriculture & Natural Resources Summer Institute
- CAS: College of Arts & Science
- CBER: Center for Biomedical Engineering Research
- CCEE: Center for Civil & Environmental Education
- CMU: Central Michigan University
- COE: College of Engineering
- CONSERVE: Center of Excellence at the Nexus of Water Reuse, Food & Health
- CPC: Center for Political Communications
- CPW: Charles Peter White Scholars
- CPWBIO: Charles Peter White Biology Scholars
- CPWPT: Charles Peter White Physical Therapy Scholars
- CRES: Center for Research in Education & Social Policy
- CSE: Center for the Study of Diversity
- DBI: Delaware Biotechnology Institute
- DDOE: Delaware Department of Education Mathematics Science Partnership
- DOE: Department of Energy
- DOE-BES: Department of Energy-Basic Energy Sciences
- DNERR: Delaware National Estuary Reserve
- DNREC: Delaware Department of Natural Resources & Environmental Control
- DRI: Delaware Rehabilitation Institute
- DRC: Disaster Research Center
- DRC-PFF: Disaster Research Center-Public Policy Fellow
- DSR: Delaware State University
- DTCC: Delaware Technical Community College
- ECE: Department of Electrical & Computer Engineering
- FCCC: Fox Chase Cancer Center
- FSC: Florida Southern College
- FSU: Florida State University
- GIT: Georgia Institute of Technology
- GPS: Graduate & Professional Studies
- HEI: Ethel & Donald Hofmann Scholars
- Hofmann: Ethel & Donald Hofmann Scholars
- INBRE: Institute of Biomedical Research Excellence
- IPA: Institute for Public Administration
- IPA-PFF: Institute for Public Administration-Public Policy Fellow
- ISL: Interdisciplinary Science Learning Laboratories
- IWMSTEM: Inspiring Women in Science, Technology, Engineering, & Mathematics
- LSU: Louisiana State University
- McNair: McNair Scholars Program
- MEEG: Department of Mechanical Engineering
- MESS: Department of Material Science & Engineering
- MUST: Missouri University of Science & Technology
- NAU: Northern Arizona University
- NCSU: North Carolina State University
- NECA: Northeastern Chemical Association
- Nemours: Office of Health Equity and Inclusion
- NIH: National Institute of General Medical Sciences
- NSF: National Institute of Health
- NSF: National Science Foundation
- NSF: National Science Foundation Bridge to Doctorate Program
- NSF: National Science Foundation Established Program to Stimulate Competitive Research
- NSF: National Science Foundation- Molecular & Cellular Biosciences
- NSF: National Science Foundation-Research Experiences for Undergraduates
- NSF CBET: National Science Foundation Chemical-Bioengineering, Environmental, and Transport Systems
- NSF QESST: National Science Foundation Quantum Energy & Sustainable Solar Technologies
- Nemours COBRE: Nemours Center of Biomedical Research Excellence
- NIFA-URE: National Institute of Food & Agriculture-Undergraduate Research Experience
- NYU: New York University
- NSURP: Nemours Summer Undergraduate Research Program
- OHEI-HESP: Office of Health Equity & Inclusion-Health Equity Summer Scholar Program
- REACT: Research Experiences to Advance Chemists in Training
- RPI: Rensselaer Polytechnic Institute
- SPPA: School of Public Policy & Administration Public Policy Fellow
- SPPA: School of Public Policy & Administration Public Policy Fellow
- SE: Science & Engineering Scholars
- SE: Science & Engineering Scholars
- SF: Summer Fellowship
- LS: Service Learning Scholars
- SLE: Service Learning Fellows
- SS: Stetson Milton H. Stetson Memorial Fellowship
- SS: Stetson Milton H. Stetson Memorial Fellowship
- TSU: Truman State University
- UD: University of Delaware Research Foundation
- UD: University of Delaware Research Foundation
- UD: University of Delaware Research Foundation
- UF: University of Florida
- UMB: University of Maryland- Baltimore County
- UMCP: University of Maryland-College Park
- UMES: University of Maryland-Eastern Shore
- UNC-W: University of North Carolina - Wilmington
- USP: University of Puerto Rico - Mayaguez
- USC: University of South Carolina
- UTEP: University of Texas - El Paso
- UVA: University of Virginia
- VSU: Virginia State University
- WVU: West Virginia University
POSTER SESSION I
8:30 - 10:00AM

(Christiana Care Health System, Nemours Biomedical Research, Fox Chase Cancer Center, Pathology, Medical Laboratory Sciences, Nursing, Kinesiology & Applied Physiology, Physical Therapy, Behavioral Health & Nutrition)

CHRISTIANA CARE HEALTH SYSTEM

1) Jessica Saunders, Evolutionary Anthropology (INBRE) (Duke University)
Alfred Bacon, Infectious Disease (Christiana Care Health System)
Retrospective Review of Infections in Injection Drug Users

2) Fouad Farag, Biological Sciences (INBRE) (DSU)
Luis Cardenas, Department of Surgery (Christiana Care Health System)
Goal Directed Fluid Management in Large Ventral Hernia Patients Based on ClearSight Monitoring

3) Alexander Jean-Francois, Biology (INBRE) (Wesley College)
Melanie Chichester, Labor & Delivery (Christiana Care Health System)
Postpartum Readmissions Associated with Preeclampsia

4) Autumn Hoffman, Pre-medical/Chemistry (INBRE) (Washington College)
Mark Cipolle, Department of Surgery (Christiana Care Health System)
Right Patient, Right Place, Right Time: Field Triage and Direct Transfer of Trauma Patients to Level I Trauma Center

5) Madison Newman, Neuroscience/Liberal Studies (INBRE)
Mark Cipolle, Department of Surgery (Christiana Care Health System)
Gaining a Piece of Mind: The Impact of Decompressive Craniectomy Procedures on Patient Outcomes with Severe Traumatic Brain Injury

6) Khadijah Bland, Biological Chemistry (INBRE) (Wesley College)
Jennifer Goldstein, Department of Medicine (Christiana Care Health System)
Over-The-Counter Insulin: How Big of a Problem is This?

7) Tajah Lewter, Biological Sciences (INBRE) (DSU)
Raymond Green, Department of Surgery (Christiana Care Health System)
Sensitivity of Physical Examination in Blunt Pelvic Trauma: What We Think We Know

8) Shellayah Benson, Biological Sciences (INBRE) (DTCC)
Michael Guarino, Oncology & Charles Mulligan Jr., Cancer Thoracic Surgery (Christiana Care Health System)

9) Queen Ralph, Biology (INBRE) (DSU)
Daniel Meara, Department of Oral and Maxillofacial Surgery & Hospital Dentistry (Christiana Care Health System)
Subjective Changes in Mood and Pain, Status-Post IV Ketamine for Oral and Facial Surgery

10) Ta-Brea Fields-Miller, Exercise Science (INBRE) (Norfolk State University)
Sandra Medinilla, Department of Surgery (Christiana Care Health System)
Stop the Bleed in Wilmington: An Urban Application for Bleeding Control

11) Gabriel Masters, Biochemistry/Molecular Biology (INBRE) (Hamilton College)
Shirin Modarai, Center for Translational Cancer Research (Christiana Care Health System)
Expression of ALDH Isoforms in Colon Tumorigenesis

12) Benjamin Crain, Undeclared (INBRE) (Emory University)
Stephen Pearlman, Neonatal Medical Group (Christiana Care Health System)
Measuring Growth in Stable Preterm Newborns: A Comparison of Two Methods

13) Sydney Shuster, Medical Laboratory Science (INBRE)
Adam Raben, Radiation Oncology (Christiana Care Health System)
Evaluating the Impacts of the Multidisciplinary Clinic and Total Treatment Time on Oropharyngeal Cancer Patients

14) Aaron Tavasi, Biological Sciences (INBRE)
Sherry Sixta, Department of Surgery (Christiana Care Health System)
A Change of Heart: TTE vs. TEE in Blunt Cardiac Injury

15) Jessica Pigeon, Psychology (INBRE)
Shannon Virtue, Behavioral Health Psychology (Christiana Care Health System)
Coping and Distress Among Individuals Diagnosed with Cancer and Diabetes
16) Nomerra Koreshi, Neuroscience (INBRE) 
Melissa Alderfer, Center for Healthcare Delivery Science (Nemours) 
*Beyond Parents: The Role of Extended Family in Sibling Adjustment to Pediatric Cancer*

17) Michael Murphy, Neuroscience (NSURP) (Dickinson College) 
Al Atanda, Orthopedics (Nemours) 
*Potential of Telemedicine to Streamline Transfers to a Level 1 Pediatric Trauma Center*

18) Morgan Domanico, Biology (NSURP) (Washington College) 
Jenna Briddell, ENT (Nemours) 
*Juvenile Onset Recurrent Respiratory Papillomatosis: A Retrospective Review of the Nemours Experience with a Rare Disease.*

19) Noah Durica, Biology (Nemours Mentor) (Stony Brook University) 
Aaron Chidekel, Pulmonology (Nemours) 
*Pediatric Narcolepsy: A Retrospective Review of Testing and Clinical Outcomes*

20) Micayla Flores, Biological Engineering (Nemours Mentor) (MIT) 
Aaron Chidekel, Pulmonology (Nemours) 
*The Effects of Chronic Illness on Sleep, Anxiety and Quality of Life in Pediatric Cystic Fibrosis and Asthma*

21) Brianna Eckeard, Medical Laboratory Science (INBRE) 
Paul Fawcett, Research (Nemours) 
*Assessment of Clinical Values of Cytokines*

22) Annelise Su, Health Sciences (Nemours) (University of Richmond) 
Michell Fullmer, Nutrition & Heidi Kecskemethy, Research (Nemours) 
*The Prevalence of Vitamin D Deficiency in Newly Diagnosed Pediatric Oncology Patients*

23) Riley Curtin, Biomedical Engineering (INBRE) 
Sharon Gould, M. Patricia Harty & H. Theodore Harcke, Medical Imaging (Nemours) 
*Evaluation of Intraosseous Intravenous Lines in Pediatric Post Mortem Cases*

24) Demetria Ruhl, Chemistry/French (NSURP) (Dickinson College) 
Anilkumar Gopalakrishnapillai, Research (Nemours) 
*Cloning and Overexpression of a Novel Leukemic Fusion Gene in Induced Pluripotent Stem Cells: Effects on Proliferation and Differentiation of Lymphocytes*

25) Arieanna Eaton, Global Public Health & Epidemiology (Nemours-OHEI) (Alma College) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Effect Measure Modification Implication of Area of Residence in Survival Disadvantage of Black Children with Renal Cell Carcinoma*

26) Sydney Gardner, Psychology/Healthcare Studies (Nemours-OHEI) (University of Richmond) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Diabetes Exposure Effect on Dental Disorders Among Children*

27) Delaney Gilfoyle, Psychology (Nemours-OHEI) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Etiology and Characterization of Failed Back Surgery Syndrome*

28) Kijai Herring, Health Behavior Science (Nemours-OHEI) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Racial and Sex Variabilities in Pediatric ALL Survival in Explained by Immunogenic Types*

29) Syliviann Horden, Nursing (Nemours-OHEI) (UMCP) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Cumulative Mortality Variability in Delaware Pediatric Trauma as Exposure Effect of Health Inequity, Delaware Trauma Registry, 2000-2016*

30) Joshua James, Computer Science/Systems (Nemours-OHEI) (Taylor University) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Impact of Mobile and Digital Health in Patient Care Improvement with Specific Focus in Pediatric Setting*

31) Andrew Lim, Chemistry (Nemours-OHEI) (UF) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Gene Expression, Physical Activity and Nutrition in Hypertension Predisposition*

32) Erin Miller, Public Health (Nemours-OHEI) (Brown University) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Health Literacy and Implication of Health Disparities*

33) Allyson Neibert, Nursing (Nemours-OHEI) (Shenandoah University) 
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours) 
*Epidemiologic Characterization of Childhood Opioid Overdose and Mortality*
34) Avi Patel, Biomedical Engineering (Nemours-OHEI) (Rowan University)
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours)
*Perinatal Risk Factors Influencing the Morbidity of Cerebral Palsy and Seizure Co-Occurrence in Pediatric Populations*

35) Emily Shutman, Biology (Nemours-OHEI) (Haverford College)
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours)
*The Effect of Childhood Trauma on Gene Expression and Major Depressive Disorder Incidence*

36) Maymuna Siddiquea, Medical Diagnostics (Nemours-OHEI)
Laurens Holmes Jr., Office of Health Equity & Inclusion (Nemours)
*Influence of Health Literacy on Pediatric Health Outcomes on Global Health, Quality of Life and Health Disparities*

37) Lauren Bules, Neuroscience (NSURP) (Johns Hopkins University)
Jing Jin, Ophthalmology (Nemours)
*An Examination of Visits to the Pediatric Emergency Department for Urgent and Non-Urgent Ocular Conditions*

38) Emily Gripp, Pre-medical (INBRE) (PSU)
Heidi Kecskemethy, Research & M. Patricia Harty, Medical Imaging (Nemours)
*Pediatric CT Radiation Exposure in Community Hospitals Versus a Children’s Hospital: A 6-Year Follow-Up Report*

39) Julia Morris, Biology (NSURP) (Villanova University)
Zhengyu Ma, Research (Nemours)
*Chimeric Antigen Receptor (CAR) Design for T-Cell Based Immunotherapy Against Her2 Expressing Mammary Cell Carcinomas*

40) Margo Donlin, Engineering (NSURP) (Elizabethtown College)
Freeman Miller & Nancy Lennon, Gait Lab (Nemours)
*The Influence of Foot Deformity on Mobility Function in Children with Cerebral Palsy*

41) Alexis Moore, Biology (INBRE) (Wesley College)
Reid Nichols & Chris Church, Gait Lab (Nemours)
*Arthrogryposis: Predicting the Future*

42) Kaelyn Gwynne, Biology (NSURP) (PSU)
Mark Riederer, Orthopedics, Rochelle Haas, Rehabilitation Medicine & Maya Zayat, Psychology (Nemours)
*The Use of Bioness Integrated Therapy System (BITS) as a Reliable Concussion Assessment Tool*

43) Jackson Mace, Neuroscience (NSURP)
Valerie Sampson, Research (Nemours)
*Effect of CDK4/6 Inhibition in Pediatric Preclinical Models of Sarcoma*

44) Corrine Seehusen, Biochemistry (NSURP) (The College of Saint Benedict)
Ambika Shenoy, Pulmonology (Nemours)
*Lung Nodules in Pediatrics: Presentation, Evaluation and Diagnosis*

45) Julia Romberger, Physics (NSURP) (The College of William and Mary)
Catherine Soprano, Diagnostic Referral Service (Nemours)
*Does Treating Vitamin D Deficiency in Children and Adolescents with Chronic Pain Improve Their Functioning?*

46) Riley Larson & Dylan Ensslin, Biomedical Engineering (NIH R25)
Jeannie Stephens & Sarah Rooney, Biomedical Engineering
Michael Bober, Pediatrics & Richard Kruse, Orthopedics (Nemours)
*Developing Modular Assistive Seating Devices for Infants with Osteogenesis Imperfecta*

47) Genell Addison, Pre-Professional Chemistry (INBRE) (DSU)
Shirley Viteri, Emergency Medicine (Nemours)
*Modification and Validation of a Pre-Existing Tool for the Early Recognition of Pediatric Sepsis*

48) Corban Weatherspoon, Physics/Bioengineering (INBRE) (DSU)
Soonmoon Yoo, Research (Nemours)
*Localization Cis-Elements Within Axonally Localizing Precursor MicroRNAs*

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**FOX CHASE CANCER CENTER**

49) Deeanne Almeida, Neuroscience (UD/FCCC/Hofmann)
Eileen Jaffe, Molecular Therapeutics (Fox Chase Cancer Center)
*Chromatographic Behavior of Phenylalanine Hydroxylase as a Probe of the Equilibrium Between Alternate Conformations*

50) Elizabeth Habash, Biological Sciences (UD/FCCC/Hofmann)
Wafik El-Deiry, Molecular Therapeutics (Fox Chase Cancer Center)
*Novel P53 Restoring Compounds Effects in P53 Protein Stability and NOXA Expression in Colorectal Cancer Cells*

51) Yasmin Mann, Biological Sciences (UD/FCCC/Hofmann)
Erica Golemis, Molecular Therapeutics (Fox Chase Cancer Center)
*The Effect of Anti-Cancer Drugs on the Regulation of Cilia-Associated PDGFRalpha Signaling*

52) Carissa Walkosak, Biological Sciences (UD/FCCC/Hofmann)
Lori Rink, Molecular Therapeutics (Fox Chase Cancer Center)
*Elucidating the Novel Interaction of BCLAF1 and Bex1 in GIST Therapy*
53) Osama Mahmoud, Biological Chemistry (INBRE) (Wesley College)
Fady Gerges, Pathology (Green Clinics Laboratory)
Clinicopathologic Correlation with Early Detection of Anal Intraepithelial Neoplasia (AIN) with Emphasis on HPV Serotype In-Situ Hybridization Analysis

54) Jenny Lin, Applied Molecular Biology & Biotechnology (SF)
Mona Batish, Medical Laboratory Sciences
RNAs Found in Exosomes from Ewing’s Sarcoma

55) Leon Elcock, Applied Molecular Biology & Biotechnology (INBRE)
Esther Biswas, Medical Laboratory Sciences
Engineering a Recombinant Plasmid Containing the malE Gene to Optimize Protein Purification

56) Hannah Lemacks, Chemistry/Biochemistry (NSF) (Western Carolina University)
Vijay Parashar, Medical Laboratory Sciences
Purification and Characterization of Cyclic-di-AMP Receptor CabPA of Streptococcus mutans

57) Tyler Findlay, Applied Molecular Biology & Biotechnology (GPS)
Esther Biswas, Medical Laboratory Sciences
Isolation of Chicken Immunoglobulin-Y for Application in Western Blot Analysis of Human ABCA4

58) Shefali Waghray, Biological Sciences (CPWBIO)
Esther Biswas, Medical Laboratory Sciences
Structural Analysis of DnaB Helicase of E.coli by Fluorescence Resonance Energy Transfer (FRET)

59) Amy Jackson, Nursing (GPS)
Jennifer Saylor, Nursing
Transition to College Campus Living for Emerging Young Adults with Type 1 Diabetes: Sleep, Stress and Glycemic Control

60) Daniel Garcia, Mechanical Engineering (CBER NSF REU) (UTEP)
Elisa Arch, Kinesiology & Applied Physiology
Effect of Load Carriage on Ankle Stiffness

61) Ahlad Neti, Biomedical Engineering (INBRE)
Elisa Arch, Kinesiology & Applied Physiology
Multi-Segment Foot Model and Load/Unload Patterns

62) Amanda Deputy, Biology (INBRE) (Wesley College)
Thomas Buckley, Kinesiology & Applied Physiology
Evaluating the Relationship Between Anxiety and Performance on Concussion Testing in Collegiate Student Athletes

63) Stephen East, Exercise Science (S&E)
Thomas Buckley, Kinesiology & Applied Physiology
Anxiety and Depression Symptoms of Concussed Athletes Throughout Recovery and Implications for Subsequent Injury Risk

64) April Roep, Psychology (INBRE) (Wilmington University)
Thomas Buckley, Kinesiology & Applied Physiology
Concussion Adversely Affects Mental Health Status of College Athletes

65) De’Shjuan Triplett, Kinesiology (INBRE) (Hampton University)
Jeremy Crenshaw, Kinesiology & Applied Physiology
The Effects of Sampling Duration on Standing Postural Stability in Children with and Without Cerebral Palsy

66) Andrew Mitchell, Biochemistry (S&E)
Matthew Hudson, Kinesiology & Applied Physiology
Skeletal Muscle-Derived Extracellular Vesicle Uptake by Cardiomyocytes

67) Elizabeth Kaye, Biological Sciences (SF)
John Jeka, Kinesiology & Applied Physiology
Mechanisms of Balance Control During Walking

68) Alissa Strouse, Exercise Science (INBRE)
Thomas Kaminski, Kinesiology & Applied Physiology
Multiple Testing Reliability Analysis of the Y-Balance Test in a Healthy Population

69) Christina Mesbah, Applied Nutrition (S&E)
Shannon Lennon, Kinesiology & Applied Physiology
The Relationship Between Dietary Potassium Intake and Urinary Potassium Excretion

70) Sarah Cipollini, Exercise Science (INBRE) & Ashley Pope, Health Behavior Science (S&E)
Anjana Bhat, Physical Therapy
The Effects of Dance on Social Smiles and Motor Performance in Children with Autism Spectrum Disorder

71) Lisa Levine, Exercise Science (S&E) & Madeline Tavino, Exercise Science (CPWPT)
Anjana Bhat, Physical Therapy
The Effects of Dance on Verbalization, Motor Planning, and Creativity in Children with Autism Spectrum Disorder
BEHAVIORAL HEALTH & NUTRITION

84) Lena Ravenell, Biological Sciences (INBRE) (DTCC)
Sheau Ching Chai, Behavioral Health & Nutrition
Effect of Fructose on Flow-Mediated Dilation and Pulse Wave Velocity in Older Adults

85) Nicole Barish, Health Behavior Science (S&E)
Sheau Ching Chai, Behavioral Health & Nutrition
The Effects of Whole Grape Consumption on Emotion and Cognition in Postmenopausal Women

86) Melissa Learish (SLS) & Ashley Steinbrecher (SLF), Health Behavior Science
Iva Obrusnikova, Behavioral Health & Nutrition
Promoting Independence and Health Among Adults with Intellectual Disabilities

87) Ivy Kahete, Medical Diagnostics (INBRE)
Shannon Robson, Behavioral Health & Nutrition
Examining the Relationship Between High Energy Dense Foods and Food Security in Mothers

88) Nkeiruka Ashiedu, Health Behavior Science (McNair)
Kelebogile Setiloane, Behavioral Health & Nutrition
Racial Disparities in Childhood Asthma

POSTER SESSION II
10:15 - 11:45AM

(Biological Sciences, Chemistry & Biochemistry, Delaware Biotechnology Institute)

BIOLICAL SCIENCES

1) Daniel Morreale, Biological Sciences (Biological Sciences)
Fidelma Boyd, Biological Sciences
Investigating the Role of CosR in the Osmotic Stress Response of the Halophile Vibrio parahaemolyticus

2) Sylvia Okafor, Forensic Biology (INBRE) (DSU)
Harbinder Dhillon, Biology (DSU)
Correlating Neural Reversal with Behavior in an Anatomically Reversed Mutant

3) Arsh Singh, Biology (INBRE) (DSU)
Harbinder Dhillon, Biology (DSU)
Computer-Assisted Behavioral Measurements of C. elegans Movement Endophenotypes
4) Stephan Geneus, Neuroscience (LEARN Scholars) (Lafayette University)  
Melinda Duncan, Biological Sciences  
*Difference in Inflammatory Cytokine Expression in the Lens of Young and Old Mice 24 Hours Post Cataract Surgery*

5) Erin Jackson, PVAB (INBRE)  
Melinda Duncan, Biological Sciences  
*The Role of Fibronectin in Post Cataract Surgery Inflammation*

6) Nicole Rossi, Biological Sciences (Biological Sciences)  
Melinda Duncan, Biological Sciences  
*Does aVβ8 Integrin Influence Post Cataract Surgery Inflammation?*

7) Abigail Dela Paz, Biomedical Engineering (S&E)  
Randall Duncan, Biological Sciences  
Pulsatile Electromagnetic Fields Regulate Bone Integrity Through Activation of Voltage Sensitive Calcium Channels

8) Madeline McGhee, Biochemistry (INBRE)  
Randall Duncan, Biological Sciences  
*Load-Induced Cellular Crosstalk Between Prostate Cancer Cells and Osteocytes in Bone Metastasis*

9) Ryan Skinner, Biomedical Engineering (CPWBIO)  
Randall Duncan, Biological Sciences  
*PEG-RGDS Stiffness Determines Chondrocyte Sensitivity to Osmolarity via TRPV4 Regulation*

10) Aaliyah Coles, Neuroscience (INBRE)  
Deni Galileo, Biological Sciences  
*The Effects of Exosomal L1CAM on Glioblastoma Stem and Non-Stem Cell Motility*

11) Michaela Scanlon, Neuroscience (Biological Sciences)  
Deni Galileo, Biological Sciences  
*The Influence of L1CAM Ectodomain on Motility of Glioblastoma Stem Cells In Vitro*

12) Tiara White, Biology (INBRE) (DSU)  
Michael Gitcho, Biology (DSU)  
*The Neuroprotective Role of VDAC1 in Alzheimer’s Disease*

13) Caitlin Dull, Chemistry/Biochemistry (NSF) (Shippensburg University)  
Tom Hanson, Biological Sciences  
*Are Outer Membrane Vesicles Involved in the S(0) Metabolism of Chlorobaculum Tepidum?*

14) Jeremy King, Biological Sciences (Biological Sciences)  
Alenka Hlousek-Radojcic, Biological Sciences  
*Do “I” Look Thin Enough?: Developing a Beginner-Friendly Technique for Microscopy Sample Preparation*

15) Needson Cadeau, Biological Sciences (McNair)  
Aimee Jaramillo-Lambert, Biological Sciences  
*Examination of Topoisomerase II SUMOylation in Meiosis C. elegans Males*

16) Gavin Keefe, Biological Sciences (Biological Sciences)  
Aimee Jaramillo-Lambert, Biological Sciences  
*Investigating the Role of MRE-11 in the TOP-2 Pathway During Meiosis in C. elegans*

17) Alexander Burris, Biology (INBRE) (DSU)  
Hwan Kim, Biology (DSU)  
*Aurimmed Compounds as Potential Therapeutics for the Treatment of Parkinson’s Disease*

18) Francisco Hernandez, Biological Sciences (GPS)  
Salil Lachke, Biological Sciences  
*Investigation of RNA Polymerase II Elongation Factor Ell2 Regulation by the Cataract-Linked RNA-Binding Protein Cel1 in Mouse Lens Development*

19) Emily Paglione, Biomedical Engineering (CPWBIO)  
Salil Lachke, Biological Sciences  
*The Cataract-Linked Gene Tdrd7 Mediates Control of Key Transcripts in the Lens*

20) Juan Ruiz, Biological Sciences (INBRE)  
Salil Lachke, Biological Sciences  
*Investigation of New Biomarkers for Mammalian Eye Development*

21) Bailey Weatherbee, Biological Sciences (Stetson)  
Salil Lachke, Biological Sciences  
*The Cataract-Associated RNA-Binding Protein Cel1 Post-Transcriptionally Controls the Key Regulator Pax6 in Lens Development*

22) Anthony Amalfitano, Neuroscience (GPS)  
Gary Laverty, Biological Sciences  
*Tetrahymena TRP Homolog Response to Noxious Cold Stimuli*

23) Yessica Martinez, Biology (INBRE) (DSU)  
Hakeem Lawal, Biology (DSU)  
*The Effect of Deficits in Central Acetylcholine Release in the Regulation of Synaptic Activity in Drosophila*

24) Kamaya Jackson, Biology (INBRE) (DSU)  
Karl Miletti, Biology (DSU)  
*CD44-Mediated Regulation of Transcription Factors Gene Expression*

25) Jalen Wilcher, Biological Sciences (INBRE) (DSU)  
Karl Miletti, Biology (DSU)  
*Optimization of a ChIP Assay to Assess the wt CD44-ICD Binding to the MMP9 Gene Promoter*

26) Matthew Bott, PVAB (INBRE)  
Ramona Neunuebel, Biological Sciences  
*Designing a Method of Bio-Orthogonal Labelling to Track the Translocation of Legionella pneumophila Effector Proteins During Infection*

27) Andre Cunningham, Biological Sciences (Biological Sciences)  
Ramona Neunuebel, Biological Sciences  
*Identifying Bacterial Virulence Factors that Target Host Vesicular Trafficking*
28) Ryan Wood, Biological Sciences (CPWBIO)  
   Anja Nohe, Biological Sciences  
   *The Role of BMP Signaling in Stem Cell Differentiation to Treat Osteoporosis*

29) Alice Wu, Biological Sciences (CPWBIO)  
   Shawn Polson, Biological Sciences  
   *Analyzing the Relationship Between Microbiome and Disease in the Eastern Oyster*

30) Thomas Swayne, Biochemistry (CPWBIO)  
   Karl Schmitz, Biological Sciences  
   *Crystallization and Characterization of Mutant E. coli ClpS Constructs*

31) Nicholas Finelli, Biological Sciences (Biological Sciences)  
   Erica Selva, Biological Sciences  
   *Examining the Role of C-Terminal GFP on Wntless Oligomerization*

32) Mia Moore, Medical Diagnostics (CPWBIO)  
   Erica Selva, Biological Sciences  
   *Cell Signaling, Development, and Cell Biochemical Aspects Through the Analysis of Oligomerization of Wntless*

33) Austin Lonski, Biological Chemistry (INBRE) (Wesley College)  
   Kevin Shuman, Biology (Wesley College)  
   *Investigation of the Effect of Opioids on S. aureus*

34) Omasan Uyebi, Biology (INBRE) (Wesley College)  
   Kevin Shuman, Biology (Wesley College)  
   *Detecting the Presence of Microbes Naturally Occurring on Delaware Produce*

35) Jeremy Wirick, Biological Chemistry (INBRE) (Wesley College)  
   Kevin Shuman, Biology (Wesley College)  
   *Influence of Common Opioids on E. coli Growth*

36) Chelsea Lee, Applied Molecular Biology & Biotechnology (GPS)  
   Jia Song, Biological Sciences  
   *MicroRNA-31 Regulation of Eve Impacts Skeletogenesis*

37) Michael Testa, Biological Sciences (INBRE)  
   Jia Song, Biological Sciences  
   *Rab35 is Essential for Gastrulation*

38) Hunter Angle, Chemistry/Biochemistry (NSF) (Chestnut Hill College)  
   Jessica Tanis, Biological Sciences  
   *Identifying Where the C Type Lection CLEC-1 is Expressed and Localized in C. elegans Using Floresent Reporters*

39) Charlotte Leslie, Biological Sciences (CPWBIO)  
   Jessica Tanis, Biological Sciences  
   *Determining the Cellular Expression Pattern of EPsiN Homolog EPN-1 in Caenorhabditis elegans*

40) Elizabeth Whelahan, Biological Sciences (Biological Sciences)  
   Jessica Tanis, Biological Sciences  
   *Defining the Localization of Epsin Membrane Protein EPN-1 at the C. elegans Neuromuscular Junction*

41) Gadriel Guevara, Biology (EPSCoR) (DSU)  
   Murali Temburni, Biological Sciences (DSU)  
   *Molecular Mechanisms of Astrocyte-Neuron Interactions in the Development of Synchronized Activity in Neuronal Networks*

42) Pallavi Kulkarni, Neuroscience (INBRE)  
   Shuo Wei, Biological Sciences  
   *Investigating the Role of ADAM9 in Colorectal Cancer*

43) Anika Tasnim, Biological Sciences (INBRE)  
   Yvette Yien, Biological Sciences  
   *Role of CLPX in the Heme Synthesis Pathway*

44) Xuedi Zhang, Biological Sciences (Biological Sciences)  
   Yvette Yien, Biological Sciences  
   *Characterization of Fam210B Protein-Protein Interactions with Mitochondrial Heme Synthesis Enzymes*

**CHEMISTRY & BIOCHEMISTRY**

45) Brian Lindner, Chemistry (Plastino)  
   Eric Bloch, Chemistry & Biochemistry  
   *Synthesis and Characterization of Charged Molecular Cages*

46) Hunter Richman, Chemistry/Biochemistry (NSF) (Indiana University-South Bend)  
   Eric Bloch, Chemistry & Biochemistry  
   *Understanding the Kinetics and Thermodynamics of Post-Synthetic Ligand Exchange in Cu(II) Metal-Organic Cages*

47) William Johnston, Chemistry/Biochemistry (NSF) (Fairmont State University)  
   Karl Booksh, Chemistry & Biochemistry  
   *Laser-Induced Breakdown Spectroscopy (LIBS) for Determining Geographical Origin of Rosewood*

48) Melissa Postlewaite, Chemistry (NUCLEUS)  
   Karl Booksh, Chemistry & Biochemistry  
   *Can We Deliver One Grain of Sand at a Time to Obtain Ramen Spectra?*

49) Michael Moreno, Biochemistry (Hofmann)  
   William Chain, Chemistry & Biochemistry  
   *Efforts Toward a Total Synthesis of Premnalatifolin A*

50) Kylea Lankford, Biology (INBRE) (Wesley College)  
   Malcolm D’Souza, Chemistry (Wesley College)  
   *Investigation of 2,2,3,3,4,4,4-Heptafluorobutyl Chloroformate in a Variety of Aqueous Organic Solvents*

51) Rachel Dunscomb, Chemistry (Plastino)  
   Cecil Dybowski, Chemistry & Biochemistry  
   *Bridging Textile Conservation and Chemistry: Chemical Analysis of Lake Crystals*
52) Clare Lipscombe, Biochemistry (INBRE) 
Joseph Fox, Chemistry & Biochemistry 
**Synthesis of Functional, Asymmetric Tetrazines via Palladium Catalyzed Cross-Couplings of Organostannanes and Thioether Tetrazines**

53) Tyler Reagle, Biochemistry (S&E) 
Joseph Fox, Chemistry & Biochemistry 
**Layered Hyaluronic Acid Microsphere Scaffolds Enabled by Rate-Limiting Diffusion and Rapid Bioorthogonal Cycloaddition for Proximity-Guided Cell Differentiation**

54) Julianna Follmar, Biochemistry (Hofmann) 
Catherine Grimes, Chemistry & Biochemistry 
**Synthesis of Fluorinate MDP Probes for NMR Binding Assay and NOD2 Protein Expression**

55) Thomas Harmon, Biochemistry (S&E) 
Catherine Grimes, Chemistry & Biochemistry 
**Total Synthesis of Muramyl Dipeptide Disaccharides and Dimers**

56) Daniel Scanlon, Biochemistry (S&E) 
Catherine Grimes, Chemistry & Biochemistry 
**Characterization of Bacterial Cell Wall Fragment Recognition by the Yeast Protein CYR1p**

57) Morgan Gobin, Chemistry/Biochemistry (NSF) (University of Hartford) 
Sharon Neal, Chemistry & Biochemistry 
**Dynamic and Steady-State Fluorescence Characterization of Water-Equilibrated Octanol Using Derivatized Anthracene Probes**

58) Deanna Greco, Chemistry/Biochemistry (NSF) (Catholic University of America) 
Juan Perilla, Chemistry & Biochemistry 
**Exploring the Mechanism of Action of the Membrane Fusion Protein IneA Using Molecular Dynamics Simulations**

59) Phoebe Herler, Chemistry (Plastino) 
Joel Rosenthal, Chemistry & Biochemistry 
**Synthesis of Cobalt Tetrapyrrrole Towards Use in O2 Reduction**

60) Roxanna Foula, Biochemistry (NUCLEUS) 
Sharon Rozovsky, Chemistry & Biochemistry 
**Characterization of Human ATPase p97: A Key Contributor to the Degradation of Misfolded Proteins**

61) Kelsi Walker, Quantitative Biology (McNair) 
Sharon Rozovsky, Chemistry & Biochemistry 
**Facile and Robust Protein Engineering for Difficult Targets**

62) Sophia Worthington-Kirsch, Chemistry/Biochemistry (NSF) (Ursinus College) 
Sharon Rozovsky, Chemistry & Biochemistry 
**The Gateway to Destruction: Characterizing p97’s Role in Protein Degradation**

63) Ruth Mandel, Chemistry (Heitzer) 
Andrew Teplyakov, Chemistry & Biochemistry 
**Controlling Surface Modification via Low Coverage Mixed Azide/Alkyl Self-Assembled Monolayers on Au(111)**

64) Dominick Guida, Chemical Engineering (S&E) 
Klaus Theopold, Chemistry & Biochemistry 
**Optical Properties of Various Two-Dimensional Layered Lead Halide Perovskites**

65) Alana Duke, Biochemistry (GPS) 
Mary Watson, Chemistry & Biochemistry 
**Progress Towards a Sterepecific, Nickel-Catalyzed Suzuki-Miyaura Cross-Coupling of Secondary Acetates Using Ligand Free Conditions**

66) Aaron Spahr, Chemistry/Biochemistry (NSF) (Lebanon Valley College) 
Don Watson, Chemistry & Biochemistry 
**Progress Towards the Synthesis of Chiral-NHC Ligands and Their Use in Asymmetric Silyl-Kumada Reactions**

67) Jedidiah Chung, Chemistry (Plastino) 
Zhihao Zhuang, Chemistry & Biochemistry 
**Development of Cell Penetrating Peptide Ubiquitin Probe**

68) Rebecca DiBona, Biochemistry (S&E) 
Zhihao Zhuang, Chemistry & Biochemistry 
**Generation and Utilization of ISG15 Probes for the Identification of Intracellular Interacting Partners**

69) Alyssa Paparella, Chemistry/Biochemistry (NSF) (Sarah Lawrence College) 
Zhihao Zhuang, Chemistry & Biochemistry 
**Generation of Photocrosslinking ISG15 Probe to Detect Intracellular Protein Interactions**

70) Michelle Favisich, Biochemistry (GPS) 
Neal Zondlo, Chemistry & Biochemistry 
**Controlling Gel Formation in Nucleoporin Derived Peptides**

71) Christine Kenney, Biochemistry (Plastino) 
Neal Zondlo, Chemistry & Biochemistry 
**The Effect of Iodo- and Thiol-Substituted Phenylalanine on GFSFGG Gel Formation and Self-Assembly**

72) Siyuan Xiang, Chemistry (GPS) 
Neal Zondlo, Chemistry & Biochemistry 
**Detecting Orbital Interactions Between Methionine and Phenylalanine in Model Peptide**

**DELAWARE BIOTECHNOLOGY INSTITUTE**

73) Tiana Cooks, Engineering Physics (INBRE) (DSU) 
Jeffrey Caplan, DBI 
**Characterization of HaloTag Fluorescent Ligands in Plant and Animal Model Systems**
**POSTER SESSION III**

**12:00 - 1:30PM**


**AGRICULTURE & NATURAL RESOURCES**

1) Fedrica Williams, Plant Science (EPSCoR) (DSU)
   Venugopal Kalavacharla, Agriculture & Natural Resources (DSU)
   Towards an Integrated Understanding of Gene Expression and Histone Modification in Common Bean (*Phaseolus vulgaris*) Under Drought Stress

**COOPERATIVE EXTENSION**

2) Laura Sahd, Human Nutrition (Extension Scholar)
   Breanna Banks, Cooperative Extension
   Impacting Leadership and Health Behaviors Among Delaware Teens

3) Logan Rash, Health Behavior Sciences (Extension Scholar)
   Kristin Cook, Cooperative Extension
   CAMP – Community, Advocacy, Mentoring, and Positivity

4) Liana Williams, Applied Nutrition (Extension Scholar)
   Rene Diaz, Cooperative Extension
   Sussex County 4-H

5) Sarah Russel, Dietetics (Extension Scholar)
   Sue Snider, Cooperative Extension
   Choose Health: Food, Fun and Fitness Youth Program

**ANIMAL & FOOD SCIENCES**

6) Davisha Brown, (Envision, NIFA Grant) (Lincoln University)
   Behnam Abasht, Animal & Food Sciences
   Relationship Between High Feed Efficiency and Occurrence of Wooden Breast Disease in Modern Broiler Chickens with a Focus on Metabolic Dysregulation

7) Adrianna Szostek, PVAB (CANR Unique Strengths)
   Robert Alphin & Eric Benson, Animal & Food Sciences
   Evaluation of Open Source Affordable and Portable Vehicle Undercarriage Decontamination Station

8) Nakya Robinson, (Envision, NIFA Grant) (UMES)
   Ryan Arsenault, Animal & Food Sciences
   Immune Profiling of the Chicken Gastrointestinal Tract

9) Monika Farmer, PVAB (Envision, USDA)
   Eric Benson & Robert Alphin, Animal & Food Sciences
   Improving Cold Weather Poultry Disease Response

10) Jacklyn Rind, PVAB (Envision, USDA)
    Eric Benson & Robert Alphin, Animal & Food Sciences
    Evaluation of Alternative Lamp and Dimmer Lighting Technologies for the Poultry Industry

11) Kathryn Babiarz, PVAB (S&E)
    Amy Biddle, Animal & Food Sciences
    An In Vitro Assessment of the Effects of Phenylbutazone on the Equine Gastric Microbiome

12) Favour Chibueze, (Envision, NIFA Grant) (Lincoln University)
    Amy Biddle, Animal & Food Sciences
    Estimation of Bacterial Populations in Response to a Poultry Litter Ammendment

13) Rebecca Davis, Biological Sciences (McNair)
    Amy Biddle, Animal & Food Sciences
    Determining Geographic Spatial Trends of Cyathostomin and Bacterial Co-Occurrence

14) Samantha Diaz, PVAB (Envision, NIFA Grant)
    Amy Biddle, Animal & Food Sciences
    The Equine Microbiome Project: Age and the Equine Microbiome

15) Gisselle Garcia, PVAB (CANR Summer Institute)
    Amy Biddle, Animal & Food Sciences
    An In Vitro Assessment of the Effects of Firocoxib on the Equine Gastric Microbiome

16) Luci Mehr, PVAB (CANR Unique Strengths)
    Amy Biddle, Animal & Food Sciences
    In Vitro Analysis of the Effect of a Nutritional Supplement on the Equine Gut Microbiome
17) Nicole Owens, Histotechnology (INBRE) (DTCC)
Amy Biddle, Animal & Food Sciences
*In Vitro Analysis of the Effect of NSAIDS on the Equine Gut Microbiome*

18) Anthony Pompetti, Biological Science Education (S&E)
Amy Biddle, Animal & Food Sciences
*Tracking Recovery of Cyathostomin Species Following Macroyclic Lactone Treatment*

19) Tesa Stone, PVAB (GPS) & Sarah Clarke, PVAB (SF)
Amy Biddle, Animal & Food Sciences
*An In Vitro Assessment of the Effects of Flunixin Meglumine on the Equine Gastric Microbiome*

20) Juliann Callan, PVAB (S&E)
Tanya Gressley, Animal & Food Sciences
*Evaluating Digestibility of Rumen Protected Choline in Dairy Cows*

21) Gabriella Castillo, PVAB (Envision, NIFA Grant)
Tanya Gressley, Animal & Food Sciences
*Evaluating Blood Metabolite Response to Rumen Protected Choline in Dairy Cows*

22) Shane Cronin, PVAB (INBRE)
Tanya Gressley, Animal & Food Sciences
*Developing a Rumen Fluid-Free In Vitro System to Predict Rumen Urea Digestion*

23) Jordan Erickson, Biological Sciences (McNair)
Dallas Hoover, Animal & Food Sciences
*Production of Glycerol by Brewer's Yeast*

24) Abigail Chambers, (Envision, NIFA Grant) (UMES)
Rolf Joerger, Animal & Food Sciences
*Susceptibility of Soil-Associated Listeria monocytogenes to Antimicrobials*

25) Eddi Blanco, Communication (Extension Scholar/ENVISION) (DSU)
Kali Kniel, Animal & Food Sciences
*Using Diginarratives to Convey Information Regarding Produce Safety and Water Irrigation*

26) Alyssa Kelly, Food Science (CANR Unique Strengths)
Kali Kniel, Animal & Food Sciences
*A 'One Health' Approach to Risk Reduction for Policy Development in Produce Safety*

27) Lindsey Steele, (Envision, NIFA Grant) (DSU)
Limin Kung, Animal & Food Sciences
*Dairy Nutrition: Corn Silage Ratios in TMR*

28) Alexis Doon, (Envision, NIFA Grant) (UMES)
Brian Ladman, Animal & Food Sciences
*Evaluation of Current Avian Respiratory Virus Vaccination Programs*

29) Madison Breske, ANFS (S&E)
Hong Li, Animal & Food Sciences
*Effects of Enrichment on Broiler Chicken Activity Levels*

30) Amanda Paul, PVAB (Envision, NIFA Grant)
Hong Li, Animal & Food Sciences
*Evaluation of Broiler Activities Affected by Presence of Windows*

31) Peyton Szymborski, PVAB (CANR Unique Strengths)
Hong Li, Animal & Food Sciences
*Thermal Environmental Stress of Broilers During Transportation Affected by Climate Condition*

32) Jasmine Braxton, (Envision, NIFA Grant) (UMES)
Mark Parcells, Animal & Food Sciences
*Examination of the Pp38/Pp24 Proteins of Marek's Disease Virus on Innate Immune Evasion*

33) Erin Gollhardt, Applied Molecular Biology & Biotechnology (S&E)
Mark Parcells, Animal & Food Sciences
*Expression of the Chicken KIN17 Homolog and its Role in Increased Marek's Disease Virus Virulence*

34) Tynasia Milfort, Biology (CANR Summer Institute) (St. Augustine's University)
Mark Parcells, Animal & Food Sciences
*Innate Sensing of Marek's Disease Virus (MDV) Infection*

35) Matthew Bonett, ANFS (S&E)
Carl Schmidt, Animal & Food Sciences
*Hy-Line Layers*

36) Victoria Dortenzio, PVAB (CANR Summer Institute)
Carl Schmidt, Animal & Food Sciences
*Impact of Heat Stress on Human Embryonic Kidney Cell Balance*

37) Kathryn Ellwood, ANFS (S&E)
Carl Schmidt, Animal & Food Sciences
*Mapping Fall Stopover Sites for Migrating Birds Around the Great Lakes*

38) Susannah Halligan, Wildlife Ecology Conservation (CANR Summer Institute)
Jeffery Buler, Entomology & Wildlife Ecology
*Delaware Waterfowl Tracker*

39) Mark Pacheco, Wildlife Ecology & Conservation (CANR Unique Strengths)
Jeffrey Buler, Entomology & Wildlife Ecology
*Mapping Fall Stopover Sites for Migrating Birds Around the Great Lakes*

40) Christian Stoltz, Entomology (S&E)
Deborah Delaney, Entomology & Wildlife Ecology
*Hive Notes: Integrating Technology to Evaluate Honey Bee Colonies Across Geographic Locations*
41) Samantha McGonigle, Wildlife Ecology & Conservation (NSF EPSCoR)  
Kyle McCarthy, Entomology & Wildlife Ecology  
*Analysis of Pesticide Residue in Deer Pellets in Urban, Agricultural, and Protected Areas in Delaware*

Kyle McCarthy, Entomology & Wildlife Ecology  
*The Sweet Smell of Scat: Identifying Species by Their Feces Using Gas Chromatography-Mass Spectrometry*

43) Garrison Piel, Entomology (S&E)  
Doug Tallamy, Entomology & Wildlife Ecology  
*Using Artificial Caterpillars to Monitor Bird Foraging*

**ENVIRONMENTAL SCIENCE**

44) Sydney Hall, Environmental Science (NSF EPSCoR)  
(Wesley College)  
Stephanie Stotts, Environmental Science (Wesley College)  
& Mike Mensinger, Environmental Scientist, (DE National Estuarine Research Reserve)  
*Microplastics in the St. Jones River, Delaware: An Examination of the Relationship Between Concentration and Proximity to the City of Dover*

**APPLIED ECONOMICS & STATISTICS**

45) Cathryn Soriano, Natural Resource Management (GPS)  
Joshua Duke, Applied Economics & Statistics  
*Do Farmers Plant Cover Crops Only if the Government Pays Them?*

46) Julia Kesselring, Food Science, (CONSERVE)  
Kent Messer, Applied Economics & Statistics  
*A Rose by Any Other Name: Branding Name Field Experiments for Recycled Water*

47) Stephen Wemple, Environmental & Resource Economics (CANR Unique Strengths)  
Kent Messer, Applied Economics & Statistics  
*Reducing Household Nutrient Run-Off: Power of Testimonial and Technology Persistence*

48) Julia Parker, Economics (NSF EPSCoR)  
Kent Messer, Applied Economics & Statistics  
*Examining Group Pressures Regarding Nontraditional Water Consumption*

49) Erick Tepale, Computer Science (CEAE)  
Kent Messer, Applied Economics & Statistics  
*Computer Programming for Economic Experiments*

**PLANT & SOIL SCIENCES**

50) Seth Rickey, Plant Science (CANR Unique Strengths)  
Harsh Bais, Plant & Soil Sciences  
*Preferential Colonization of Listeria monocytogenes in Lactuca sativa*

51) Danielle Mikolajewski, Plant Science (Center for Food Systems & Sustainability)  
Nicole Donofrio, Plant & Soil Sciences  
*Disruption of the Genome of Rice Blast to Identify Genes Involved in Production of Reactive Oxygen Species*

52) Gabrielle DeAngelis, Environmental Science (S&E)  
Jeffry Fuhrmann, Plant & Soil Sciences  
*Combining Rhizobiophages and Superior Bradyrhizobia to Enhance Soybean Productivity*

53) Kona Haramoto, Environmental Science (NSF EPSCoR)  
Jeffrey Fuhrmann, Plant & Soil Sciences  
*Enhanced Sustainable Soybean Production Using Rhizobiophages*

54) Matthew Erickson, Biological Sciences (CPWBIO)  
Pamela Green, Plant & Soil Sciences  
*Analysis of miRNAs and their Targets During Early Development in the Atlantic Horseshoe Crab (Limulus polyphemus)*

55) Nikhil Chari, Chemical Biology (CANR Summer Institute)  
(Univ. of California-Berkeley)  
Angelia Seyfferth, Plant & Soil Sciences  
*Impacts of Silicon on Arsenic Dynamics in Flooded Rice Paddy Soil*

56) Amelia Griffith, Biochemistry (Plastino)  
Angelia Seyfferth, Plant & Soil Sciences  
*Combined Impacts of Arsenic and Magnaporthe oryzae on Rice Stress and Alleviation by Silicon*

57) Kendall McCoach, Plant Science (Center for Food Systems & Sustainability)  
Angelia Seyfferth, Plant & Soil Sciences  
*Effect of Pyrolyzation Conditions on Rice Husk Chemical Properties*

58) Monica Elavarthi, Chemical Engineering (NSF EPSCoR)  
Donald Sparks, Plant & Soil Sciences  
*Legacy Phosphorus Desorption from US Mid-Atlantic Agricultural Soils*

59) Kathryn Holden, Biological Sciences (NSF EPSCoR)  
Donald Sparks, Plant & Soil Sciences  
*Biogenic Iron Oxides: A Timely Carbon Sink*

60) Sarah Kubat, Plant Science (CANR Unique Strengths)  
Erin Sparks, Plant & Soil Sciences  
*Determining the Regulatory Relationship Between NLP7 and DREB Transcription Factors Under Well-Watered and Water Limiting Conditions*
61) Aubrey Inkster, Plant & Soil Sciences/Anthropology (NSF EPSCoR)
   Tara Trammell, Plant & Soil Sciences
   Evaluating Vegetation and Soil Seed Banks in Newark Forest Fragments

MARINE STUDIES
62) Margaret Dolan, Marine Biology (S&E)
    Jonathan Cohen, Marine Studies
    The Effect of Algicide on the Stress Response in Estuarine Species
63) Audrey Ostroski, Marine Science (S&E)
    Danielle Dixson, Marine Studies
    The Effect of Predicted Ocean Acidification Levels on Feeding Rates of the Reef Cleaner Shrimp, Stenopus hispidus
64) Conner McCrone, Marine Science (S&E)
    Arthur Trembanis, Marine Studies
    From Deep Learning To Citizen Science: Developing and Implementing Strategies for Analyzing Large Imagery Datasets
65) Grant Otto, Mechanical Engineering (S&E)
    Arthur Trembanis, Marine Studies
    Dynamic, Power, and GPS Upgrades to an Autonomous Kayak to Improve Side-Scan Sonar Sensing Resolution and Capabilities

GEOLOGICAL SCIENCES
66) Michelle Hallenbeck, Biological Sciences (NUCLEUS)
    Clara Chan, Geological Sciences
    Comparative Genomic Analysis of Bacterial Isolates from Acid Mine Drainage

GEOGRAPHY
67) Haley Will, Geography (NSF EPSCoR)
    Martin Clifford, Geography
    The Large Scale and Small Scale Gold Mining Effects on Climate Change
68) Sam Weiskopf, Geography (NSF EPSCoR)
    Daniel Leathers, Geography
    Improving Estimates of Extreme Precipitation Events in Delaware Using Mesonet Data
69) George Watson, Environmental Science (NSF EPSCoR)
    Lindsay Naylor, Geography
    The Effect of Silica Amendments on Rice Straw Throughout the Growing Season

HUMAN ECOLOGY
70) Pedro Rosario, Biology (INBRE) (DSU)
    Junglim Lee, Human Ecology, Food Science & Biotechnology (DSU)
    Improving Soil Health and Food Safety in Organic Vegetable Gardens by Customized Management of Soil Amendments
71) Damyen Ingram, Forensic Biology (INBRE) (DSU)
    Gulnihal Ozbay & Alberta Aryee, Human Ecology/Agriculture & Natural Resources (DSU)
    Assessment of Viability of Probiotic Bacteria (Lactobacillus acidophilus) in Yogurt During Storage

PUBLIC & ALLIED HEALTH SCIENCES
72) Naomi Crawford, Biology & Jonae Savage-Hall, Forensic Biology (INBRE) (DSU)
    Adam Kuperavage & Christopher Mason, Public & Allied Health Sciences (DSU)
    Analyzing Neuromuscular Efficiency During Static Control of Center of Mass in Relation to Dynamic Control of Center of Mass During Gait

HUMAN DEVELOPMENT & FAMILY SCIENCES
73) Nicole Mejia, Elementary Education (McNair)
    Ann Aviles, Human Development & Family Sciences
    ¿Y Dónde Está Mi Gente? Using Youth Participatory Action Research (YPAR) to Cultivate Culturally Relevant Curriculum that Supports Traditionally Underserved Students
74) Makenzie Mullen, Early Childhood Education (NUCLEUS)
    Jennifer Fox, Human Development & Family Sciences
    Developing and Testing Microbe/Bacteria Curriculum
75) Anthony Drzal, Human Services (SLS)
    Brian Freedman, Human Development & Family Sciences
    Summer CLSC: Preparing Students with Intellectual Disabilities for Life After High School
76) Allison Michalowski, Psychology (INBRE)
    Allison Karpyn, Human Development & Family Sciences
    Developing a Community Collective Impact Fruit and Vegetable Program Evaluation

EDUCATION
77) Adaeye Ashiedu, Psychology (McNair)
    Roberta Golinkoff, School of Education
    Conversational Turns Between Parents and Foster Children
78) Samantha Seidenberger, Elementary Education (INBRE)
Roberta Golinkoff, School of Education
Puzzle-Play Frequency and Socioeconomic Status in the Development of Spatial Assembly

79) Leighton Trimarco, Public Policy (SPPA-PPF)
Kelly Sherretz, Institute for Public Administration, School of Public Policy & Administration
Utilizing Digital Platforms to Enhance Community Outreach and Engagement

BUSINESS ADMINISTRATION

80) Michael Caserta, Marketing (AHSS)
Jennifer Gregan, Business Administration
How Useful is Marketing in Political Campaigns?

81) Charlotte Jenkins, Business Management/Marketing (SLF)
Anu Sivaraman, Business Administration
Understanding UDance Fundraising

POSTER SESSION IV
1:45 - 3:15PM

(Engineering: Biomedical, Chemical & Biomolecular, Civil & Environmental, Mechanical, Materials Science)

BIOMEDICAL ENGINEERING

1) Stephen Ioele, Biomedical Engineering (S&E)
Emily Day, Biomedical Engineering
Delivery of miR-34a to Triple Negative Breast Cancer Cells via Layer-by-Layer Assembled PLGA Nanoparticles

2) Rachel O'Sullivan, Biomedical Engineering (Vince Baro Scholarship/S&E)
Emily Day, Biomedical Engineering
Imaging Nanoparticle Distribution in Lung Tissue Explants

3) Justin Bartell, Biomedical Engineering/Biochemistry (CBER NSF REU) (FSU)
Dawn Elliott, Biomedical Engineering
The Quantification of Error Associated with Incremental Correlation in 2D Digital Image Correlation and Methods to Reduce this Error for Tissue Analysis

4) William Robinson, Exercise Science (INBRE)
Dawn Elliott, Biomedical Engineering
Using Osmotic Loading to Study the Role of Fluid Flow in the Mechanical Response of Rat Tail Tendon

5) Mary Athanasopoulos, Biomedical Engineering (Vince Baro Scholarship/S&E)
Jason Gleghorn, Biomedical Engineering
Development of a Microfluidic ex vivo Lung Culture Platform for the Study of Mechanical Ventilator Induced Lung Injury

6) Isabel Carulli, Biomedical Engineering (McNair)
Jason Gleghorn, Biomedical Engineering
Molecular Cloning of Growth Factors Crucial For Lung Development

7) Brea Chernokal, Biomedical Engineering (GPS)
Jason Gleghorn, Biomedical Engineering
Mapping the Morphogenesis of the Developing Vasculature in an Embryonic Chicken Model

8) Amanda Dang, Biomedical Engineering (CBER NSF REU) (University of Michigan)
Jason Gleghorn, Biomedical Engineering
Investigating the Role of Fluid Flow and EndMT in the Self-Assembly of 3D Vascular Architectures

9) Mercedes Dayan, Biological Sciences (NUCLEUS)
Jason Gleghorn, Biomedical Engineering
The Role of Stretch-Induced Mechanotransduction in the Airway Epithelium of the Developing Lung

10) Caitlin Grasso, Biomedical Engineering (GPS)
Jason Gleghorn, Biomedical Engineering
Developing Automated Processing Algorithms for High-Throughput 3D Droplet Images for Virology Experiments

11) Kaitlyn Krewson, Biomedical Engineering (GPS)
Jason Gleghorn, Biomedical Engineering
Investigating the Role of FGF-7 on the Growth of Embryonic Mouse Lungs

12) Isabel Navarro, Chemical Engineering (GPS)
Jason Gleghorn, Biomedical Engineering
Design of Microfluidic Systems to Investigate Virus-Host Interactions

13) Nicholas Pautler, Biomedical Engineering (SF)
Jason Gleghorn, Biomedical Engineering
Toward Single Cell Encapsulation in Shear-Thinning Droplets for High-Throughput Disease Models

14) Olivia Powell, Mechanical Engineering (McNair)
Jason Gleghorn, Biomedical Engineering
Developing a Passively-Driven Storage Platform for Droplet-Based Microfluidic Virology Experiments

15) Sienna Pyle, Biomedical Engineering (McNair)
Jason Gleghorn, Biomedical Engineering
Sex-Linked Reversibility of Endothelial to Mesenchymal Transition in Human Neonatal Pulmonary Cells
16) Diana Renteria, Biological Engineering (CBER NSF REU) (MIT)  
Jason Gleichorn, Biomedical Engineering  
Understanding the Role of the Physical Extracellular Microenvironment in Leukemic Stem Cell Quiescence  

17) Laurel Schappell, Biomedical Engineering (INBRE)  
Jason Gleichorn, Biomedical Engineering  
Investigating the Role of Extracellular Matrix Proteins on the Mechanics of the Neonatal Mouse Lung  

18) Catherine Cooper, Cognitive Science (GPS)  
Curtis Johnson, Biomedical Engineering  
Magnetic Resonance Elastography of Adolescents Age 8-11  

19) Elizabeth Dickinson, Biomedical Engineering (GPS)  
Curtis Johnson, Biomedical Engineering  
Brain Changes in Hockey Players over the Course of a Season  

20) Ray Duda, Biomedical Engineering (BMEG)  
Curtis Johnson, Biomedical Engineering  
Quantification of Individual Forearm Muscle Stiffness During Multiple States of Activation in Multi-Muscle MRE  

21) Nana Marfo, Neuroscience (Hofmann)  
Curtis Johnson, Biomedical Engineering  
Diffusion Tensor Imaging in Multiple Sclerosis  

22) Gabrielle Villermaux, Neuroscience/Applied Nutrition (DRI)  
Curtis Johnson, Biomedical Engineering  
White Matter Tract Integrity Relates to Balance Performance in Pediatric CP  

23) Megan Smith, Biological Sciences/Political Science (INBRE) (University of Pittsburgh)  
Megan Killian, Biomedical Engineering  
Visualizing Embryonic Expression of FGF-9/18 and Scleraxis mRNA in the Tendon-to-Bone Attachment  

24) Mario Soto, Industrial Microbiology (CBER NSF REU) (UPR)  
Megan Killian, Biomedical Engineering  
Response of Tendon Fibroblasts to Modulated FGF Signaling  

25) Mark Ellsworth, Biomedical Engineering (DRI)  
Christopher Price, Biomedical Engineering  
Dose-Dependent Effect of Zoledronic Acid on Equine Cartilage  

26) Brianna Hulbert, Biomedical Engineering (INBRE)  
Christopher Price, Biomedical Engineering  
Effect of Zoledronic Acid on Chondrocyte Viability, Proliferation, Metabolism and Cell Cycle In Vitro  

27) Ben Maggio, Biomedical Engineering (INBRE)  
Christopher Price, Biomedical Engineering  
Effects of Acute Impact Injury on Cartilage Explant Health  

28) Paul Rozzi, Mechanical Engineering (CBER NSF REU) (Cornell University)  
Christopher Price, Biomedical Engineering  
Characterization of Articular Cartilage Mechanical Properties Following Extracellular Matrix Degradation  

29) Alison Wright, Biomedical Engineering (S&E)  
Christopher Price, Biomedical Engineering  
Sliding-Induced Solute Transport into Enzymatically Degraded Articular Cartilage  

30) Rachel Marbaker, Mechanical Engineering/Mathematics (CBER NSF REU) (Lafayette College)  
Fabrizio Sergi, Biomedical Engineering  
Double Stance Acceleration on Split Belt Treadmill as a Tool to Induce Locomotor Adaptation  

31) Jonathan Stuchlik, Biomedical Engineering (S&E)  
Fabrizio Sergi, Biomedical Engineering  
Calibration of Magnetic Resonance Elastography for Muscle Force and Stiffness Measurement  

CHEMICAL & BIOMOLECULAR ENGINEERING  

32) Eric Wolfsberg, Chemical Engineering (NSF)  
Maciek Antoniewicz, Chemical & Biomolecular Engineering  
13C Metabolic Flux Analysis of E. coli Grown in Dense Colonies on Agar  

33) Lencho Amente, Chemistry (GPS)  
Douglas Buttrey, Chemical & Biomolecular Engineering  
Vapor-Liquid Equilibrium in Isothermal Condition  

34) Christine Castagna, Chemical & Biomolecular Engineering (Delaware Energy Institute/S&E)  
Thomas H. Epps III, Chemical & Biomolecular Engineering /Materials Science & Engineering  
Synthesis and Characterization of Single-Ion Polymers for Lithium-Ion Batteries  

35) Sophia Freaney, Chemical Engineering (NSF)  
Thomas H. Epps III, Chemical & Biomolecular Engineering /Materials Science & Engineering  
Self-Assembly and Characterization of High-chi Fluorinated Block Polymer  

36) Paula Pranda, Chemical & Biomolecular Engineering (NSF/S&E)  
Thomas H. Epps III, Chemical & Biomolecular Engineering /Materials Science & Engineering  
Engineering Lignin Inspired Compounds for Sustainable Polymer Applications  

37) Justin Chernokal, Chemical Engineering (GPS)  
Catherine Fromen, Chemical & Biomolecular Engineering  
Characterizing Macrophage Cell Signaling from the Phagocytosis of Degrading Nanoparticles  

38) Daksh Jain, Chemical Engineering (S&E)  
Catherine Fromen, Chemical & Biomolecular Engineering  
Leveraging 3D Printing for Lung Model Replication Delivery
39) Azeem Sharief, Chemical Engineering (NECA)  
Catherine Fromen, Chemical & Biomolecular Engineering  
3D Printed Human Trachea Models for Deposition Studies

40) Kara Pelster, Chemical Engineering (SF/Schlumberger)  
Eric Furst, Chemical & Biomolecular Engineering  
Linear Viscoelastic Measurements of Polymer Solutions and Gels

41) Moujirui Sau, Chemical Engineering (NSF-REU) (PSU)  
Eric Furst, Chemical & Biomolecular Engineering  
Phononic Metamaterials Assembled from Colloidal Building Blocks

42) Jihyuk Kim, Chemical Engineering (NSF-REU Interfacing Sustainable Energy & Materials) (Auburn University)  
Arthi Jayaraman, Chemical & Biomolecular Engineering  
PRISM Theory Studies to Contrast Solvent vs. Polymer Wetting-Dewetting Behavior in Polymer Nanocomposites

43) Emily Eastburn, Materials Science & Engineering (Pew Charitable Trusts) (Georgia Institute Technology)  
April Kloxin, Chemical & Biomolecular Engineering/Materials Science & Engineering  
Designing Collagen Mimetic Materials for Studies of Cell Migration

44) Derek Bischoff, Chemical Engineering (S&E)  
Christopher Kloxin, Chemical & Biomolecular Engineering  
Development of Synthetic Click Nucleic Acids for Biosensing Applications

45) Tessa Posey, Biomedical Engineering (NSF-REU Interfacing Sustainable Energy & Materials) (USC)  
Christopher Kloxin, Chemical & Biomolecular Engineering  
Peptide Synthesis and Assembly

46) Sydney Clasen, Chemical Engineering (NSF)  
Kelvin Lee, Chemical & Biomolecular Engineering  
Investigating the Role of Alternate Transcripts of DNA-Repair Genes in CHO Cell Line Stability

47) Alec Agee, Chemical Engineering (S&E)  
Eleftherios Papoutsakis, Chemical & Biomolecular Engineering  
Rational Design and Adaptive Evolution of E. coli for Methylotrophy

48) Andrew Danielson, Chemical Engineering (DOE)  
Dion Vlachos, Chemical & Biomolecular Engineering  
Thiol-Promoted Catalytic Synthesis of Renewable Lubricant Base Oils with Biomass Derived 2-Alkylfurans and Ketones

49) Ben Fisher, Chemical Engineering (DOE)  
Dion Vlachos, Chemical & Biomolecular Engineering  
Optimization of HMF Production from Potato Peel Waste via Response Surface Methodology

50) Alexander Kuczykowski, Chemical Engineering (DOE)  
Dion Vlachos, Chemical & Biomolecular Engineering  
Selective Hydrodeoxygenation of Furfuryl Alcohol over Ultra-Low Loading Catalysts

51) Steven Kuntz, Computer Science (RAPID/S&E)  
Dion Vlachos, Chemical & Biomolecular Engineering  
Identification of Descriptors in CO Oxidation via Principal Component Analysis

52) David Moglia, Chemical Engineering (DOE)  
Dion Vlachos, Chemical & Biomolecular Engineering  
Unraveling the Reaction Kinetics of Surfactant Production from Renewable Resource

53) Wallis Boyd, Chemical Engineering (NSF CBET) (University of Connecticut)  
Norman Wagner & Antony Beris, Chemical & Biomolecular Engineering  
A Microfluidic Viscometer for Blood: Theory and Fabrication

54) Erin Hogan, Chemical Engineering (S&E)  
Norman Wagner, Chemical & Biomolecular Engineering  
Optimization of Shear-Thickening Fluids for Space Suit Applications

55) Evan Minnigh, Chemical Engineering (NSF CBET)  
Norman Wagner, Chemical & Biomolecular Engineering  
Comparison of Microfluidic Viscosity Measurements with Bulk Rheology for Human Blood

56) Laura Smith, Chemical Engineering (S&E)  
Norman Wagner, Chemical & Biomolecular Engineering  
Host Cell Protein Expression in E. coli

57) Kevin Sanchez Rivera, Chemical Engineering (NSF-REU Interfacing Sustainable Energy & Materials/DOE) (UPR)  
Bingjun Xu, Chemical & Biomolecular Engineering  
Quantitative Study of Shape Evolution of Pd Cubes at Atomic Level using Surface-Enhanced Infrared Reflection-Absorption Spectroscopy

58) Alex King, Chemical Engineering (NSF-REU Interfacing Sustainable Energy & Materials/ARPA-E IONICS) (University of Michigan)  
Yushan Yan, Chemical & Biomolecular Engineering  
Hydroxide Exchange Membrane Electrolyzers for Hydrogen Production

59) Hansen Mou, Chemical Engineering (NSF-REU Interfacing Sustainable Energy & Materials/ARPA-E IONICS) (Clemson University)  
Yushan Yan, Chemical & Biomolecular Engineering  
Characterization of Reinforced and Self-Supported Polymer Hydroxide Exchange Membrane

CIVIL & ENVIRONMENTAL ENGINEERING

60) Aidan Meese, Environmental Engineering (NSF EPSCoR)  
Daniel Cha, Civil & Environmental Engineering  
Aerobic Bio-Digester for On-Site Food Waste Disposal
61) Katherine Dougherty & Sean Morris, Mechanical Engineering (Sustainability Scholars)  
Michael Chajes, Civil & Environmental Engineering  
*Delaware River and Bay Authority: Applications in Energy Harvesting*

62) Alexia Stock, Civil Engineering (CEE)  
Rachel Davidson, Civil & Environmental Engineering  
*Effect of Hurricane Retrofit Characteristics on Homeowners’ Decisions to Implement Them*

63) James Holyoke, Civil Engineering (S&E)  
Tian-Jian Hsu, Civil & Environmental Engineering  
*Understanding Oil Removal Through Oil-Mineral-Microbial Flocculation Processes*

64) Katelyn Anderson, Environmental Engineering (S&E)  
Paul Imhoff, Civil & Environmental Engineering  
*Applying Biochar as Roadway Soil Amendment in New Castle County, DE*

65) Sydney Cargill, Civil Engineering (S&E)  
Paul Imhoff, Civil & Environmental Engineering  
*Biochar Effect on Plant Growth, Water Availability, and Nutrient Removal*

66) Emily Tulsky, Civil Engineering (S&E)  
James Kirby, Civil & Environmental Engineering  
*Evaluating the Correspondence Between Tsunami Hazard and Existing Coastal Flooding Estimates on the U.S. East Coast*

67) Kyle Verdi, Civil Engineering (CEE)  
Kalehiwot Manahiloh, Civil & Environmental Engineering  
*Experimental Evaluation of the Engineering Behavior of Soil-Biochar Mixture as a Roadway Construction Material*

68) Michael Rechsteiner, Environmental Engineering (S&E)  
Julia Maresca, Civil & Environmental Engineering  
*How Biochar Can Help Sustain Our Environment*

69) Tingchi Ren, Civil Engineering (CEE)  
Sue McNeil, Civil & Environmental Engineering  
*Operationalizing the Concept of Resilience: A Case Study of Flooding in North Carolina*

70) Shannon Brown, Environmental Engineering & Janelle Skaden, Civil Engineering (S&E)  
Jack Puleo, Civil & Environmental Engineering  
*Effects on Munition Due to Tidal Patterns*

71) Mike Larner, Civil Engineering (GPS)  
Jack Puleo, Civil & Environmental Engineering  
*Shoreline Morphology Due to Vessel Generated Wakes*

72) Rachel Schaefer, Civil Engineering (CEE)  
Jack Puleo, Civil & Environmental Engineering  
*Investigation of Wind and Vessel Generated Wave Attenuation by Marsh Vegetation*

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**MECHANICAL ENGINEERING**

73) Russell Martin, Biomedical Engineering (CBER NSF REU)  
(University of Iowa)  
Thomas Buchanan, Mechanical Engineering  
*MRI-Based T2 Quantification of Articular Cartilage Degradation Following Surgical ACL Reconstruction*

74) Caroline Kook, Mechanical Engineering (CBER NSF REU/ MEEG/S&E)  
David Burris, Mechanical Engineering  
*Eliciting How Articulation Amplitude, Contact Area, and Stress, Affect Fluid Load Support of Cartilage and Joints*

75) Christopher Pasquale, Mechanical Engineering (S&E)  
Joseph Feser, Mechanical Engineering  
*Thermal Resistance of Epitaxial Interfaces*

76) Zhiyuan Yang, Mechanical Engineering (S&E)  
Joseph Feser, Mechanical Engineering  
*Direct Measurement of Phonon Scattering Rate Using an Ultrafast Laser*

77) Shawn Egan, Computer Science (Delaware Energy Institute)  
Zubaer Hossain, Mechanical Engineering  
*Effects of Inhomogeneous Composition Profiles on Quantum Dot Confinement*

78) Colin McDermitt, Mechanical Engineering (S&E)  
Zubaer Hossain, Mechanical Engineering  
*Engineering Strength & Toughness via Atomic Scale Stitching*

79) Allison Prock, Mechanical Engineering (SF)  
Zubaer Hossain, Mechanical Engineering  
*Defect Structure Induced Strength and Toughness Anisotropy in hBN*

80) Tianyi Weng, Mechanical Engineering (S&E)  
Zubaer Hossain, Mechanical Engineering  
*Thermomechanical Stability of Thin-Film Alloy Quantum Dots*

81) Raina Coffin, Mechanical Engineering (CBER NSF REU)  
(University of Michigan-Ann Arbor)  
X. Lucas Lu, Mechanical Engineering  
*Chondro-Protective Effect of Statin and the Inhibition of Rho GTpase Activities*

82) Tiange Zhang, Mechanical Engineering (GPS/CBER NSF REU/Vince Baro Scholarship/MEEG)  
X. Lucas Lu, Mechanical Engineering  
*Protect of Cartilage During Joint Inflammation*

83) Yiming Wan, Mechanical Engineering (S&E)  
Andreas Malikopoulos, Mechanical Engineering  
*UD’s Scaled Smart City*

84) Raymond Zayas, Mechanical Engineering (GPS)  
Andreas Malikopoulos, Mechanical Engineering  
*Designing & Implementing Computer Vision in a Decentralized Traffic Environment Simulation*
Christopher McMahon, Mechanical Engineering (S&E)  
Ioannis Poulakakis, Mechanical Engineering  
Optimization and ROS Simulation of SPEAR Robotic Leg  

Rob Samuelson, Mechanical Engineering (S&E)  
Ioannis Poulakakis, Mechanical Engineering  
Autonomous Robot Navigation in an Environment Cluttered by Obstacles  

Sabrina Sierra, Mechanical Engineering (CBER NSF REU) (UPR)  
Ioannis Poulakakis, Mechanical Engineering  
Studying Gait Transitions with Periodic Gait Primitives  

Thomas Giusetti, Mechanical Engineering (GPS)  
Romain Valery Roy, Mechanical Engineering  
Torsional Galloping as a Method of Harvesting Wind Energy  

Xia Wu, Mechanical Engineering (S&E)  
Erik Thostenson, Mechanical Engineering  
Preparation and Characterization of Carbon Nanotube Integrated Multifunctional Composites  

Theresa Ewa, Biochemistry (CBER NSF REU) (University of Illinois at Chicago)  
Liyun Wang, Mechanical Engineering  
Expression Pattern of the Mechanosensitive Ion Channels Piezo 1 and Piezo 2 in Murine Skeletal Tissue  

Sida Jiang, Mechanical Engineering (CBER NSF REU/Vince Baro Scholarship/MEEG)  
Liyun Wang, Mechanical Engineering  
Spatiotemporal Analysis of Calcium Signaling in Mechanically Loaded Bone  

Spencer Grissom, Chemical Engineering (NSF-REU Interfacing Sustainable Energy & Materials/W. M. Keck Foundation) (UMCP)  
Matthew Doty, Materials Science & Engineering  
Photon Upconversion Nanoparticles for Targeted Drug Delivery  

Kyle Smyth, Chemistry (W. M. Keck Foundation)  
Matthew Doty, Materials Science & Engineering  
TBA  

Michelle Thuruthickara, Biomedical Engineering (MSEG/NSF BMAT/S&E)  
Kristi Kiick, Materials Science & Engineering  
Modification of the Phase-Separation Behavior of Resilin-Like Polypeptides  

Brady Abraham, Mechanical Engineering (ASU/NSF QESST/S&E)  
Robert Opila, Materials Science & Engineering  
Performance of a Novel Electrodeposited Silicon Junction  

Aashiv Patel, Electrical Engineering (S&E)  
Robert Opila, Materials Science & Engineering  
Modeling High-Efficiency Carrier Selective Solar Cells  

Areej Shahid, Chemical Engineering (NSF-REU Interfacing Sustainable Energy & Materials/DOE) (UMBC)  
Joshua Zide, Materials Science & Engineering  
Characterization of Electronic and Photonic Nanomaterials  

POSTER SESSION V  
3:30 - 5:00PM  

PSYCHOLOGICAL & BRAIN SCIENCES  
1) Betty Akalu, Neuroscience (INBRE)  
Mary Dozier, Psychological & Brain Sciences  
The Association Between Somatic Symptoms and Chronic Health Conditions in Middle Childhood  

2) Maria DePinto, Psychology (SF)  
Mary Dozier, Psychological & Brain Sciences  
Inhibitory Control in Aggressive Children over Time  

3) Jordan Franklin, Neuroscience (INBRE)  
Chad Forbes, Psychological & Brain Sciences  
The Association Between Attachment Organization and Poor Health in Middle Childhood  

4) Lydia Hadley, Neuroscience (GPS)  
Chad Forbes, Psychological & Brain Sciences  
Mechanisms Behind Women's STEM Disengagement  

5) Gabriela Poletaev, Biological Sciences (INBRE)  
Chad Forbes, Psychological & Brain Sciences  
Sensing the Stigma: Neurological Reactions to Socially Stigmatized Situations  

6) Carolyn Byrne, Neuroscience (SF)  
Amy Griffin, Psychological & Brain Sciences  
Examining Prefrontal Correlates of Spatial Working Memory  

7) Ezra Rudinoff, Neuroscience (S&E)  
Amy Griffin, Psychological & Brain Sciences  
Spatial Working Memory Correlates of Medial Entorhinal and Midline Thalamic Projections to the Dorsal Hippocampus
8)  Emily Wald, Psychology (S&E)
Amy Griffin, Psychological & Brain Sciences
Optogenetic Inactivation of a Thalamo-Prefrontal Pathway During Spatial Working Memory

9)  Bernardus Willems, Neuroscience (GPS)
Amy Griffin, Psychological & Brain Sciences
Local Field Potential Spectral Analysis in the Hippocampus During a DNMP Task

10)  Courtney Aul, Neuroscience (S&E)
James Hoffman, Psychological & Brain Sciences
Repetition Priming in the Attentional Blink

11)  Alison Lobo, Neuroscience/Spanish Studies (INBRE)
James Hoffman, Psychological & Brain Sciences
Can Emotional Stimuli Break Through the Attentional Blink?

12)  Charlotte Kronick, Psychology (S&E)
Julie Hubbard, Psychological & Brain Sciences
Gender Differences in Children's Response to Peer Aggression

13)  Kendall Smythe, Psychology (S&E)
Lisa Jaremka, Psychological & Brain Sciences
Married Couples, How Self-Esteem Influences the Feeling of Belonging

14)  Allison George, Neuroscience (SF)
Anna Klintsova, Psychological & Brain Sciences
Structural Changes to Thalamus in an Animal Model of Fetal Alcohol Spectrum Disorders

15)  Natalie Ginn, Neuroscience (NUCLEUS)
Anna Klintsova, Psychological & Brain Sciences
Effect of Third Trimester Equivalent Alcohol Exposure on Cholinergic Circuity of the Forebrain in Rodents

16)  Lord Freeman, Biochemistry (NUCLEUS)
Dayan Knox, Psychological & Brain Sciences
Using Near Infrared Imaging to Examine Fear Memory-Induced Changes in AMPA/NMDA Receptor Ratios in the Fear Circuit

17)  Subhas Anushka Mazumdar, Neuroscience (S&E)
Dayan Knox, Psychological & Brain Sciences
The Effect of SPS on Fear Memory when Switching the Behavioral Paradigm

18)  Catherine Nadar, Psychological & Brain Sciences (S&E)
Jared Medina, Psychological & Brain Sciences
The Neural Basis of Visual-Tactile Multisensory Integration

19)  Patrick Reyes, Neuroscience (S&E)
Jared Medina, Psychological & Brain Sciences
Understanding Spatial Representation Using the Tactile Simon Effect

20)  Kylie Wright, Neuroscience/Biological Sciences (INBRE)
Jared Medina, Psychological & Brain Sciences
Understanding the Neural Correlates of Body Perception with Voxel-Based Lesion-Symptom Mapping

21)  Aislinn DeSieghardt, Cognitive Science (GPS)
Peter Mende-Siedlecki, Psychological & Brain Sciences
Does Gender Moderate Racial Bias in Pain Perception and Treatment?

22)  Sloan Ferron, Neuroscience (McNair)
Peter Mende-Siedlecki, Psychological & Brain Sciences
The Relationship Between Biased Perception of Pain and Anger on Black Faces

23)  Alexandra Klysa, Psychology (S&E)
Peter Mende-Siedlecki, Psychological & Brain Sciences
The Neural Basis of Racial Bias in Pain Perception: An fMRI Study

24)  Nicole Kozak, Neuroscience (S&E)
Peter Mende-Siedlecki, Psychological & Brain Sciences
Perceptual Mechanisms Supporting Racial Bias in Pain Care

25)  Danielle Schwartz, Psychology (S&E)
Peter Mende-Siedlecki, Psychological & Brain Sciences
Individual Differences in Emotional Processing and Personality on Pain Perception

26)  Lauren Meckler, Neuroscience (S&E)
Joshua Neunuebel, Psychological & Brain Sciences
Using Sound Source Localization to Investigate the Impact of the Reproductive Cycle on Mouse Social Communication

27)  Tanner Wilkinson, Neuroscience (GPS)
Joshua Neunuebel, Psychological & Brain Sciences
The Effect of TRPC2 Knockout on Mouse Social Interactions and Vocalizations

28)  Catherine Zimmerman, Neuroscience (S&E)
Tania Roth, Psychological & Brain Sciences
Effects of 5-aza-2'-deoxycytidine on DNA Methylation in the PFC of Adolescent Long Evans Rats Following Differential Maternal Care

29)  McKayla Wood, Neuroscience (GPS)
Jaclyn Schwarz, Psychological & Brain Sciences
Examining the Impact of a Two-Hit Model of Neuroinflammation on Social Behavior in Juvenile Rats

30)  Brittany Vetter, Neuroscience (McNair)
Jeffery Spielberg, Psychological & Brain Sciences
Investigation of Hippocampal Network Properties Related to Individual Differences in Memory

31)  Colin Horgan, Neuroscience (S&E)
Mark Stanton, Psychological & Brain Sciences
Involvement of Medial Prefrontal NMDA Receptors in the Context Preexposure Facilitation Effect

32)  Claudia Pinizzotto, Neuroscience (SF)
Mark Stanton, Psychological & Brain Sciences
Effects of Muscarinic Receptor Antagonism on Post-Shock and Retention Test Freezing in the Context Preexposure Facilitation in Rats
33) Anna McCarter, Neuroscience (INBRE)  
Timothy Vickery, Psychological & Brain Sciences  
**How Does Human Reinforcement Learning Cope with Varying Task-Irrelevant Features?**

34) Kerri Walter, Neuroscience (GPS)  
Timothy Vickery, Psychological & Brain Sciences  
**Object-Based Warping: Exploring Links to Attention**

**LINGUISTICS & COGNITIVE SCIENCE**

35) Teresa Highberger, Cognitive Science (McNair)  
Arild Hestvik, Linguistics & Cognitive Science  
*Mental Representations of Speech Sound Categories*

36) Adassa Phillips, Exercise Science (McNair)  
Arild Hestvik, Linguistics & Cognitive Science  
*Brain Activity Revealing Effects of Learning Artificial Language*

37) Kenya Neal, Sociology (McNair)  
Kaja Jasinska, Linguistics & Cognitive Science  
*Using fNIRS Neuroimaging to Study the Neural Systems that Support Children's Comprehension of Scalar Implicatures*

38) Krystal Mendez, Cognitive Science (INBRE)  
Zhenghan Qi, Linguistics & Cognitive Science  
*Role of Linguistic Experiences in Statistical Learning*

**COMPUTER & INFORMATION SCIENCES**

39) Chengzhuo Wang, Computer Science (S&E)  
Daniel Chester, Computer & Information Sciences  
*Simultaneous Action Game*

40) Jonathan Martin, Computer Science (SF)  
James Clause, Computer & Information Sciences  
*Java Test Analyzer Tool*

41) Yihan Ye, Computer Science (S&E)  
Keith Decker, Computer & Information Sciences  
*Exploring Dynamically Branching Structures by Agent-Based Modeling*

42) Nathaniel Merrill, Computer Science (S&E)  
Guoquan Huang, Computer & Information Sciences  
*Lightweight Unsupervised Deep Loop Closure*

43) Adam Tran, Computer Science (S&E)  
Kathleen McCoy, Computer & Information Sciences  
*Reestablishing Google Connection with Dr. Yarrington and Dr. McCoy’s Dissertation: Simulating Question-Based Visual Scanning for Non-Visual Readers*

**ELECTRICAL & COMPUTER ENGINEERING**

44) Ryan Kabrick, Computer Engineering (S&E)  
Guang Gao, Electrical & Computer Engineering  
*Exploring Parallel Computing on a Multicore Embedded System with TensorFlow*

45) Nathan Augenbraun, Electrical Engineering (NASA EPSCoR ISS)  
Tingyi Gu, Electrical & Computer Engineering  
*Processing & Testing of Micrometer Scale Devices*

46) Zachary Mahl, Computer Engineering (NASA EPSCoR ISS)  
Tingyi Gu, Electrical & Computer Engineering  
*Raman Spectroscopy and Building Waveguides*

47) Michael Schwartz, Computer Engineering (NASA EPSCoR ISS)  
Tingyi Gu, Electrical & Computer Engineering  
*Slot Waveguide Simulations & Optical Coupling*

48) Jason Anderson, Electrical Engineering (S&E)  
Steven Hegedus, Electrical & Computer Engineering  
*Mobile Solar Experimental Station Diagnosis*

49) Alexis Deputy, Electrical Engineering; Spencer Czerwinski & Daniel May, Computer Engineering (S&E) & Mateo Duke, Computer Engineering (GPS)  
Fouad Kiamilev, Electrical & Computer Engineering  
*Re-Engineering Large Introductory Course (RELIC) in Computer Engineering to Enhance Learning and Participation*

50) Jennifer DeFriece & Samuel Matylewicz, Electrical Engineering (S&E)  
Fouad Kiamilev, Electrical & Computer Engineering  
*Electric Vehicle Research*

51) Drew Barrett & Marina Smolens, Electrical Engineering (S&E)  
Mark Mirotznik, Electrical & Computer Engineering  
*Tailored Dielectric Filament Feedstock for Additive Manufacturing*

52) Theodore Fessaras, Computer Engineering (S&E)  
Mark Mirotznik, Electrical & Computer Engineering  
*Additive Manufacturing of Pharmaceuticals*

53) Ryan Geary, Computer Engineering (S&E)  
Mark Mirotznik, Electrical & Computer Engineering  
*TBA*

54) Collin Wallish, Electrical Engineering (S&E)  
Mark Mirotznik, Electrical & Computer Engineering  
*TBA*

55) Alina Christenbury, Computer Science (GPS)  
Andrew Novocin, Electrical & Computer Engineering  
*Summer Scholars VR*
56) Grant Zhao, Computer Science (S&E)
Andrew Novocin, Electrical & Computer Engineering
Developing an Affordable Intrusion Detection System for Small Businesses

MATHEMATICAL SCIENCES

57) Brandon Gilbert, Mathematical Sciences (GPS)
Sebastian Cioaba, Mathematical Sciences
Addressings of Graphs and Networks

58) Chunxu Ji, Mathematical Sciences (S&E)
Sebastian Cioaba, Mathematical Sciences
Distinguishing Graphs Through Eigenvalues of Simplicial Complexes

59) Samantha Kasehagen, Mathematical Education & Shannon McNaul, Chemical Engineering (S&E)
Michelle Cirillo, Mathematical Sciences
Proof in Secondary Classrooms: Finding Patterns in Student Thinking

60) Ryan Talley-McGovern, Actuarial Sciences (S&E)
David Edwards, Mathematical Sciences
Modeling Transport Effects in BIAcore Reactions

61) Miguel Fuentes, Applied Mathematics (GPS)
Chad Giusti, Mathematical Sciences
Perceptron Geometries in 2 Layer Feed Forward Networks

62) Corey Holcomb, Applied Mathematics (Mathematical Sciences)
Chad Giusti, Mathematical Sciences
Topological Statistics for Image Analysis

63) Lucas Wu, Mathematical Sciences (S&E)
Dominique Guillot, Mathematical Sciences
The Positivity of GCD Matrices

64) Samuel Awidi, Computer Science (INBRE) (DSU)
Sokratis Makrogianisis, Mathematical Sciences (DSU)
Computational Techniques for Tissue Identification and Quantification Applied to Body Composition Imaging

65) Catherine Castagna, Computer Science (SF)
Douglas Rizzolo, Mathematical Sciences
Testing for Collisions in Correlated Brownian Motion Simulations

66) Dai Li, Mathematics/Economics (GPS)
Louis Rossi, Mathematical Sciences
Mathematical Modeling of Phytoplankton Behaviors

67) John Pae, Applied Mathematics (GPS)
Louis Rossi, Mathematical Sciences
The Mathematics of Swimming Plankton

68) Dong Liang, Mathematics/Economics (S&E)
Francisco-Javier Sayas, Mathematical Sciences
Vectorized Implementation of Deep Neural Networks and Application to Classification of Signals

69) Megan Dilorio, Quantitative Biology (CPWBIO); Muyi Liu, Mathematics (Volunteer) & Julia Trigg, Mathematics (Penn State) (PSU)
Gilberto Schleiniger, Mathematical Sciences
Steady State Analysis of Tissue Organization Model

70) Jayson Feld, Mathematics (NSF EPSCoR) (Wesley College)
Derald Wentzien, Mathematics (Wesley College)
The Correlation Between Asthma and Air Quality

PHYSICS & ASTRONOMY

71) Caio Azevedo, Physics Engineering & Panisara Chimsutti, Biology (INBRE) (DSU)
Mohammad Khan, Physics Engineering (DSU)
Higher Harmonic Detection and Sensitivity to Instrument Drifts in Trace-Gas Sensors for Biomedical Applications

72) Ashanti Scott, Biology/Chemistry (INBRE) (DSU)
Qi Lu, Physics Engineering (DSU)
Phase Changes in Giant Unilamellar Vesicles Upon Interactions with Gold or Silver Nanoparticles

73) Edward Graff, Physics (S&E)
Bennett Maruca, Physics & Astronomy
CURIE Mission Ground Station Design and Testing

74) Bridget Dolan, Astronomy/English ( Physic & Astronomy/CAS)
Adebanjo Oriade, Physics & Astronomy
Effects of Multiple Examination Versions on Student Performance

75) Daniel Toy, Physics (Physic & Astronomy/DuPont ISLL)
Adebanjo Oriade, Physics & Astronomy
Non-Science Majors Learning About Electric Circuits / Remote Sensing to Water a Plant

76) Michael Pergeorelis, Physics (SF)
Veronique Petit, Physics & Astronomy
Finding the Existance of B-Type Star Companions

77) Jennifer Fanelle, Physics (S&E)
Michael Shay, Physics & Astronomy
Estimating Current Density with MMS Data in Near-Earth Space

78) Daniel Godzieba, Physics (S&E)
Michael Shay, Physics & Astronomy
Energy Analysis of MHD Turbulence in Magnetic Reconnection Simulations
**Oral Session One**  
**8:30 – 9:45am**

**FAMILY & PROFESSIONAL SUPPORT (ROOM 110)**  
**Moderator:** Mary Dozier, Psychological & Brain Sciences  
Sean Riley & Jen Storm, Psychology & Danielle Hess, Human Services (SLS)  
Ryan Beveridge & Stevie Grassetti, Psychological & Brain Sciences  
*Bounce Back*  
Natalie Field, Neuroscience & Ameha Kottam, Psychology (SLS)  
Mary Dozier, Psychological & Brain Sciences  
*Trajectory of Fidelity and Effectiveness of Certified Parent Coaches*  
Nathan Field, Psychology/Cognitive Science & Trina Harmon, Psychology (SLS)  
Mary Dozier, Psychological & Brain Sciences  
*Working with High-Risk Families*  
Katherine Johnson, Public Policy (SLS)  
Nancy Weiss, Human Development & Family Sciences  
*Direct Support Professional Perspectives and Role Perceptions in the Field of Intellectual and Developmental Disabilities*  
**DANCE, MUSIC THEORY & EDUCATION (ROOM 215)**  
**Moderator:** James Anderson, Music  
Rachel DeLauder, Exercise Science (GPS)  
Lynette Overby, Community Engagement Initiative, School of Public Policy & Administration  
*Dancers and Posture: The Effects of the Alexander Technique on Alignment*  
Catherine Preszler, Music Education (AHSS)  
Lauren Reynolds, Music  
*Percy Grainger’s Quest to Elevate the Folk Song*  
Amanda Goldstein, Music Theory (AHSS)  
Philip Duker, Music  
*The Formal Function of the “Pop-Drop” in Popular Music*  
Joshua Dill, Music Education (AHSS)  
James Anderson, Music  
*Mahler’s Resurrection: An Examination of Leonard Bernstein’s Mahler Advocacy*  
Alex Sallade, Music Theory (AHSS)  
Jennifer Shafer, Music  
*Music Analysis and Its Impact on Performance*  
**POLITICAL HISTORIES & CRIMINAL JUSTICE (ROOM 222)**  
**Moderator:** Ronet Bachman, Sociology & Criminal Justice  
Jennifer West, History (AHSS)  
Michael Frassetto, History  
*The Transformation of English Criminal Trial in Conjunction with the Spiritual Refocus of the Twelfth Century*  
Paige Morrison, History (AHSS)  
Wayne Batchis, Political Science & International Relations  
*The Four Horsemen and the New Deal Court*  
William Rossi, Political Science (GPS)  
Wayne Batchis, Political Science & International Relations  
*A Political and Legal Analysis of The Deferred Action for Childhood Arrivals Program*  
Samantha Rodriguez, Neuroscience (GPS)  
Ronet Bachman, Sociology & Criminal Justice  
*Prostitution, Substance Abuse, and Crime: Narratives of Recidivism and Desistance*  
Nicole Salvatore, Criminal Justice (AHSS)  
Ellen Donnelly, Sociology & Criminal Justice  
*Police Misconduct Reform: Assessing the Nature and Impacts of Federal Investigations and Consent Decrees*  
**ART & IDENTITY (ROOM 322)**  
**Moderator:** Greg Shelnutt, Art & Design  
Sierra Bacon, Art (GPS)  
Amy Hicks, Art & Design  
*Coochie Coo*  
Colleen Conway, Fine Arts (AHSS)  
Greg Shelnutt, Art & Design  
*Fashion, Society, and Insecurities*  
TJ White, Fine Arts (AHSS)  
Abigail Donovan, Art & Design  
*Celestial Bodies*  
Savannah Wallett, Visual Communications (GPS)  
Jon Cox, Art & Design  
*Evolve*
Oral Session Two
10:00 – 11:15am

Community Development & Revitalization (Room 110)

Moderator: Marcia Scott, Institute for Public Administration

Dakota Edwards, Public Policy/History (SPPA-PPF)
Marcia Scott & Sarah Pragg, Institute for Public Administration, School of Public Policy & Administration
Planning for Complete Communities in Delaware Through Online Engagement

Tyler Reininga, Dietetics (Extension Scholar)
Christy Mannering, CANR
Communication Leading to Pathways of Collaboration

Ellen Schenk, Public Policy (SPPA-PPF)
Troy Mix, Institute for Public Administration, School of Public Policy & Administration
Economic Prosperity in Delaware

ENGLISH EDUCATION & EDUCATIONAL PROGRAMMING (Room 215)

Moderator: Josh Wilson, Education

Rachel Tallant, Art (GPS)
Abigail Donovan, Art & Design
The Value of Art in Education: With a Focus on Photography

Jillian Solomon, Human Services (McNair)
Ann Aviles, Human Development & Family Sciences
A Seat at the Table: Youth Participatory Action Research in Minority Community Development

Cristina Ahrendt, Elementary Education (GPS)
Joshua Wilson, Education
Instantly Helping Students Become Better Writers: An Investigation of the Use of Automated Essay Scoring Software in the Elementary ELA Classroom

William Eichler, English Education (AHSS)
William Lewis, Education
Breaking Down the Bard

Gender & Sexuality (Room 222)

Moderator: Jennifer Lobasz, Political Science & International Relations

Taylor Matthews, Public Policy (Pattison)
Pascha Bueno-Hansen, Women's Studies
LGBTQ Community in the Inner City of Wilmington

Drew Hanley, Women's Studies (AHSS)
Jennifer Lobasz, Political Science & International Relations
Non-Binary Trends, Tropes, and Tiers in Fictional Media

Jordan Spencer, History Education (McNair)
Drew Brown, Africana Studies
The Presence of Queerness in Baller Culture

Kobe Baker, Anthropology/Africana Studies (McNair)
Drew Brown, Africana Studies
Crossovers and Contradictions: Intimate Ballers

Art: Methods & Reception (Room 322)

Moderator: Amy Hicks, Art & Design

Catarina Carvalho, Fine Arts (AHSS)
Jon Cox, Art & Design
The First Apprentice

Xander Opiyo, Art (GPS)
Amy Hicks, Art & Design
The Starving Artist: A Discussion of the Stigma Surrounding the Pursuit of Visual Art Careers

Krista Webster, Visual Communications (AHSS)
Robyn Phillips, Art & Design
Dinosaur Problems

Deanna Wingel, Art (AHSS)
Abigail Donovan, Art & Design
Experimental Animation

Caroline Kerins, Fine Arts (AHSS)
Edward Winn, Art & Design
One to the Power of Love: Researching Video Game Art
Oral Session Three
11:30am – 12:45pm

FOX CHASE CANCER CENTER (ROOM 110)

Moderator: Carly Meluney, Arts & Sciences Undergraduate Academic Services

Decanne Almeida, Neuroscience (UD/FCCC/Hofmann)
Eileen Jaffe, Molecular Therapeutics (Fox Chase Cancer Center)
Chromatographic Behavior of Phenylalanine Hydroxylase as a Probe of the Equilibrium Between Alternate Conformations

Elizabeth Habash, Biological Sciences (UD/FCCC/Hofmann)
Wafik El-Deiry, Molecular Therapeutics (Fox Chase Cancer Center)
Novel P53 Restoring Compounds Effects in P53 Protein Stability and NOXA Expression in Colorectal Cancer Cells

Yasmin Mann, Biological Sciences (UD/FCCC/Hofmann)
Erica Golemis, Molecular Therapeutics (Fox Chase Cancer Center)
The Effect of Anti-Cancer Drugs on the Regulation of Cilia-Associated PDGFRalpha Signaling

Carissa Walkosak, Biological Sciences (UD/FCCC/Hofmann)
Lori Rink, Molecular Therapeutics (Fox Chase Cancer Center)
Elucidating the Novel Interaction of BCLAF1 and Bex1 in GIST Therapy

EDUCATION ACCESS (ROOM 215)

Moderator: Jenni Buckley, Mechanical Engineering

Rigoberto Flores, Psychology; Wildo Mejia, Organizational & Community Leadership & Lindsay Perez-Perez, Elementary Teacher Education (SLF)
April Veness, Geography
Getting into and Through College: Road Maps Used, and Challenges Faced by Southern Delaware Hispanic Students and Their Families

Muizz Hassanali, Mechanical Engineering (College of Engineering Undergraduate Diversity Scholar)
Jenni Buckley, Mechanical Engineering
Diversity Initiatives in the College of Engineering

Casey Moore, International Relations (SLS)
Malasree Neepa Acharya, Political Science & International Relations
Preventing a Lost Generation: Education Policies in Greek Refugee Camps Compared to Education Policies in the United States

HISTORY & CULTURE (ROOM 222)

Moderators: Jon Cox, Art & Design
Francesca Cheatham, Fine Arts (Nucleus)
Jay Custer, Anthropology
Indigenous Icons of the Mid-Atlantic
Caleb Demree, Environmental Engineering (AHSS)
Jay Custer, Anthropology
Using Oyster Microgrowth to Understand Seasonal Consumption
Rachel Bohny, English (AHSS)
Roger Horowitz, History
The Jewish Community of Delaware: A History
Jeanette Bendolph, History (GPS)
Owen White, History
The Black Victorians: Victorian Anthropology, Racial Perception, and Occupations of Britain’s Black Population
Stephen Skaar, Geography (AHSS) & David Woodruff, History (SF)
Jon Cox, Art & Design
Road to Freedom: The Story of Thomas Garrett

UNDERSTANDING & PROTECTING ART (ROOM 322)

Moderator: Martha Carothers, Art & Design

Robert Sheehan, English (AHSS)
Christopher Penna, English
Poetry Visible
Raychelle Osnato, Art Conservation (AHSS)
Brian Baade, Art Conservation
A Jacquard Tapestry: Treatment and Analysis at the Textile Conservation Workshop
Kirsten Gobb, Art Conservation (AHSS)
Martha Carothers, Art & Design
This Book Has a Stick in It: And Other Challenges in Archival Processing and Conservation of Artist Books
Juliana Jones, Fine Arts (GPS)
Amy Hicks, Art & Design
Politics and Art: Healing in the Age of the Divide
SOCIAL IMPLICATIONS
OF DANCE  (ROOM 417)
Moderator: Lynnette Overby, Community Engagement Initiative, School of Public Policy & Administration
Ikira Peace, Interpersonal Communications (SPPA-PPF)
Lynnette Overby, Community Engagement Initiative, School of Public Policy & Administration
“Women of Consequence”: South Africa and the United States
Rachel DeLauder, Exercise Science, (GPS); Ikira Peace, Interpersonal Communications (SPPA-PPF); Amber Rance, Health Behavior Science (SLS) & April Singleton, Entrepreneurship & Technology Innovation (SLS)
Lynnette Overby, Community Engagement Initiative, School of Public Policy & Administration
*Women of Consequence in South Africa and United States: A Collaborative Performance*
*A dance performance

 Oral Session Four
2:00 – 3:15pm

INTERNATIONAL HUMANITIES  (ROOM 110)
Moderator: Melissa Melby, Anthropology
Shannon Brady, Fashion Merchandising (AHSS)
Sheng Lu, Fashion & Apparel Studies
Used Clothing Trade: A Blessing or Curse for African Countries?
Molly Fulton, Anthropology (AHSS)
Melissa Melby, Anthropology
How Diverse Health Information Can Help New Mothers and Their Babies
Emily Doris, International Relations (AHSS)
Julio Carrion, Political Science & International Relations
The Tweet Heard Round the World: Feminist Revolution in Latin America
Zhen Yuan, Economics (GPS)
Jeremy Tobacman, Economics
Local Labor Markets, Wages, and Employment

SCIENCE & TECH OUTREACH  (ROOM 215)
Moderator: Kelsey Obringer, Political Science & International Relations
Branden Bateman & Anna McGough, Biomedical Engineering (SLS)
Jeannie Stephens & Sarah Rooney, Biomedical Engineering
Michael Bober, Pediatrics & Richard Kruse, Orthopedics (Nemours)
Assistive Seating Device for Infants with Osteogenesis Imperfecta
Sierra Enea, Biological Sciences (McNair)
Yvette Yien, Biological Sciences
TBA
Jaime Renman, Public Policy (SPPA-PPF)
Marcia Scott & Julia O’Hanlon, Institute for Public Administration, School of Public Policy & Administration
Mobility in Motion: Engagement Efforts Designed to Advance Mobility Coordination in Delaware
Agostina Armando, Agronomical Engineering (Catholic University of Cordoba) & Caroline May, Agriculture & Natural Resources (Extension Scholar)
Bill Cissel, Cooperative Extension
The Journey of Managing Pests
Summer Thomas, Agriculture & Natural Resources (Extension Scholar)
Emmalea Ernest, Cooperative Extension
Fourth Generation’s First Time Around

DIVERSITY INITIATIVES  (ROOM 222)
Moderator: Theodore Davis Jr., Political Science & International Relations
Benét Burton, Anthropology (McNair)
Georgina Ramsay, Anthropology
Diversity Disparity: An Analysis of Heterogeneity in Student Life
Taurence Chisholm Jr., International Relations (McNair)
Theodore Davis Jr., Political Science & International Relations
An Exploratory Study of Socioeconomic Status Factors in Relation to Confidence in Degree Completion
Keynon Harris-Miller, Psychology (McNair)
Carol Henderson, English/African Studies
Behind the Scenes: Representation of Black Men in Media Effects on Black Male Youth
ORAL SESSION FIVE
3:30 – 4:45pm

PSYCHOLOGY & HUMAN DEVELOPMENT (ROOM 110)

Moderator: Kelebogile Setiloane, Behavioral Health & Nutrition

Lavinia Sanches, Psychology (Hofmann)
Steve Amendum, School of Education
Analyzing the Relationship Between Components of Family Involvement and Literacy Achievement of English Language Learners

Dajah White-Dumpson, Neuroscience (McNair)
Rob Palkovitz, Human Development & Family Sciences
TBA

Aliyah Nelson, Human Services (GPS)
Jennifer Carrano, Human Development & Family Studies
Identifying the Effectiveness of Group Mentoring vs. Individual Mentoring on Self-Esteem Development in Girls between the Ages of Six and Eleven

Rachel Confair, Linguistics (AHSS)
Roberta Golinkoff, Linguistics & Cognitive Science
Talking with Toddlers: Investigating Conversational Turns in Foster Families

COMMUNITY WELLNESS (ROOM 222)

Moderator: Elizabeth Orsega-Smith, Behavioral Health & Nutrition

Chelsea Ganc, Health Promotion (Extension Scholar)
Sarah Bercaw, Cooperative Extension
Increasing Participation and Retention Rates in the EFNEP Program

Margaret Chesser, Biological Sciences/Public Policy (SPPA-PPF)
Christopher Kelly, Institute for Public Administration, School of Public Policy & Administration
School-Based Health Centers in Delaware

Keani Craig, Amber Rance & Brianna Wolfe, Health Behavior Science (SLS)
Elizabeth Orsega-Smith, Behavioral Health & Nutrition & Laurie Ruggiero, School of Nursing
Interactive Nutrition Education: Engaging Older Adults

Sarah Warkentin & Madison Matera, Public Policy (SPPA-PPF)
Signe Bell, Center for Community Research and Service, School of Public Policy & Administration
Healthy Communities Delaware

Marissa Onesi, History/Criminal Justice (SPPA-PPF)
Julia O’Hanlon, Institute for Public Administration, School of Public Policy & Administration
Programs, Services, and Planning for Multi-Generational Communities

OUTREACH TO CHILDREN & YOUTH (ROOM 322)

Moderator: Suzanne Burton, Music

Carolanne Deal, Art History & AnnaLivia McCarthy, Art Conservation/Art History (SLS)
Jocelyn Alcántara-Garcia, Art Conservation
Art Rules! Art and Science Outreach at Winterthur Museum and Salvation Army, Wilmington

Erica Haas, Tristan Leung, Danny Pinero & Kayla Reiner, Music Education (SLS)
Suzanne Burton, Music
The Beat Goes On

April Singleton, Entrepreneurship & Technology Innovation (SLS)
Lynnette Overby, Community Engagement Initiative, School of Public Policy & Administration
The Legacy Project

Aderolake Bolarinwa, University Studies (McNair Scholars); Adolphus Fletcher, Business; Samantha Gibbs, Biological Sciences; Rahsel Holland, English/Public Policy; Liam Stewart, Hotel, Restaurant & Institutional Management & Christian Wills, English (Wilmington Summer Scholars),
David Teague, English/Associate in Arts
Wilmington and the Social Sector: Writing a Youth Master Plan
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Crystal Felty, Composer, University Printing
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COMMUNITY PARTNERS

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Fresh to You at the Helen Graham Cancer Center
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Greater Lewes Community Village
Hickory Tree Community Center (Delaware State Housing Authority)
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Howard Weston Senior Center
Iglesia Adventista Hispana de Georgetown
Infant Caregiver Project
Jewish Family Services
La Esperanza Community Center, Georgetown
Laurel Redevelopment Corporation
Milford Boys and Girls Club
National Leadership Consortium on Developmental Disabilities
New Castle County Farmer’s Markets at Rockwood Park, Route 9, and West Side Hilltop Lutheran
Our Lady of Lourdes Catholic Church, Seaford
Phillip C. Showell Elementary 4-H (Indian River School District)
Red Clay Consolidated School District
Richardson Park Elementary School
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St. Michael’s the Archangel Catholic Church, Georgetown
The Salvation Army Summer Camp
SummerCollab
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Town of Laurel
Town of Lewes
Upward Bound Math and Science
The Warehouse Project
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YMCA of Delaware

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Diamond Higgin, Program Assistant, McNair Scholars Program
Darian Lawrence, Program Assistant/RA, McNair Scholars Program
Mary Ann Null, Program Coordinator, Undergraduate Research Program
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Victoria Sunnergren, Program Assistant Liaison, Undergraduate Research Program
Kristen Todd, Program Assistant/RA, Undergraduate Research Program
The Alliance of Summer Scholars