UNIVERSITY OF DELAWARE

Dear Friends of Undergraduate Research and Engaged Learning:

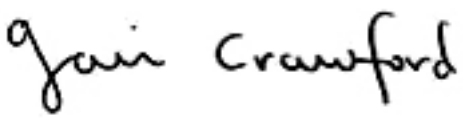
Welcome to the ninth annual Celebratory Symposium for students in our Summer Scholars program. With over five hundred presenters, this is our largest event ever, and we are very excited to share their work with you. And we are delighted to be able to do so in the heart of the main campus in the Patrick 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

UNIVERSITY OF DELAWARE

Robin O. Morgan
Provost

August 2018

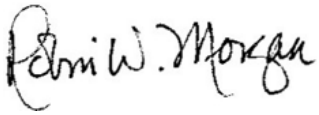
Dear Colleagues and Friends:

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

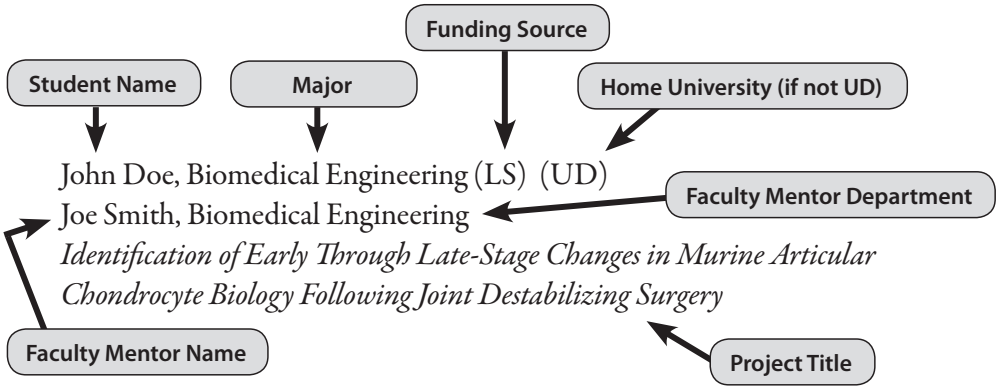
116 Hullihen Hall | Newark, Delaware 19716
Phone: 302-831-2101 | Fax: 302-831-2020

provost.udel.edu

Undergraduate Research and Service Scholar Celebratory Symposium
Harker Lab • Thursday, August 9, 2018 • 8:30 a.m. - 5:00 p.m.

8:00 – 8:25	Poster Session I Set-up	Commons	
8:30 – 10:00	***Poster Session I*** 8:30 – 9:15 (ODD numbered posters present) 9:15 – 10:00 (EVEN numbered posters present)	Commons	
8:30 – 9:45	***Oral Session 1***		
	1. Family & Professional Support	Room 110	pg. 27
	2. Dance, Music Theory & Education	Room 215	pg. 27
	3. Political Histories & Criminal Justice	Room 222	pg. 27
	4. Art & Identity	Room 322	pg. 27
10:00 – 10:15	Switch Posters for Session II	Commons	
10:00 – 11:15	***Oral Session 2***		
	1. Community Development & Revitalization	Room 110	pg. 28
	2. English Education & Educational Programming	Room 215	pg. 28
	3. Gender & Sexuality	Room 222	pg. 28
	4. Art: Methods & Reception	Room 322	pg. 28
10:15 – 11:45	***Poster Session II*** 10:15 – 11:00 (ODD-numbered posters present) 11:00 – 11:45 (EVEN numbered posters present)	Commons	
11:30 – 12:45	***Oral Session 3***		
	1. Fox Chase Cancer Center	Room 110	pg. 29
	2. Education Access	Room 215	pg. 29
	3. History & Culture	Room 222	pg. 29
	4. Understanding & Protecting Art	Room 322	pg. 29
	5. Social Implications of Dance	Room 417	pg. 30
11:45 – 12:00	Switch posters for Session III	Commons	
12:00 – 1:30	***Poster Session III*** 12:00 – 12:45 (ODD-numbered posters present) 12:45 – 1:30 (EVEN numbered posters present)	Commons	
12:00 – 2:30	**LUNCH**	Perkins Student Center	
1:30 – 1:45	Switch posters for Session IV	Commons	
1:45 – 3:15	***Poster Session IV*** 1:45 – 2:30 (ODD-numbered posters present) 2:30 – 3:15 (EVEN numbered posters present)	Commons	
2:00 – 3:15	***Oral Session 4***		
	1. International Humanities	Room 110	pg. 30
	2. Science & Tech Outreach	Room 215	pg. 30
	3. Diversity Initiatives	Room 222	pg. 30
3:15 – 3:30	Switch Posters for Session V	Commons	
3:30 – 4:45	***Oral Session 5***		
	1. Psychology & Human Development	Room 110	pg. 31
	2. Changing Political Futures	Room 215	pg. 31
	3. Community Wellness	Room 222	pg. 31
	4. Outreach to Children & Youth	Room 322	pg. 31
3:30 – 5:00	***Poster Session V*** 3:30-4:15 (ODD-numbered posters present) 4:15-5:00 (EVEN numbered posters present)	Commons	
4:30 – 5:30	UD Creamery Ice Cream, courtesy of the College of Agriculture and Natural Resources	Corner of Academy and Lovett Streets next to Colburn Lab	

Explanation of Program Entries



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
BMEG	Department of Biomedical Engineering
CANR	College of Agriculture & Natural Resources Summer Institute
CAS	College of Arts & Science
CBER	Center for Biomedical Engineering Research
CCEI	Catalysis Center for Energy y Innovation
CCNY	City College of New York
CCRS	Center for Community Research & Service
CCRS-PPF	Center for Community Research & Service-Public Policy Fellow
CEAE	Center for Experimental & Applied Economics
CEE	Department of Civil & Environmental Engineering
CMCS	Center for Material Culture Studies
CMU	Central Michigan University
COE	College of Engineering
CONSERVE	A 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
CRESP	Center for Research in Education & Social Policy
CSD	Center for the Study of Diversity
DBI	Delaware Biotechnology Institute
DDOE-MSP	Delaware Department of Education Mathematics Science Partnership
DOE	Department of Energy
DOE-BES	Department of Energy-Basic Energy Sciences
DNERR	Delaware National Estuary Research Reserve
DNREC	Delaware Department of Natural Resources & Environmental Control
DRI	Delaware Rehabilitation Institute
DRC	Disaster Research Center
DRC-PPF	Disaster Research Center-Public Policy Fellow
DSU	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
Heitzer	David M. Heitzer Award
Hofmann	Ethel & Donald Hofmann Scholars
INBRE	IDeA Network of Biomedical Research Excellence
IPA	Institute for Public Administration
IPA-PPF	Institute for Public Administration-Public Policy Fellow
ISLL	Interdisciplinary Science Learning Laboratories
IWSTEM	Inspiring Women in Science, Technology, Engineering & Mathematics
LSU	Louisiana State University
McNair	McNair Scholars Program
MEEG	Department of aMechanical Engineering
MIT	Massachusetts Institute of Technology
MSEG	Department of Material Science & Engineering
MUST	Missouri University of Science & Technology
NASA EPSCoR ISS	National Aeronautics and Space Administration Established Program to Stimulate Competitive Research International Space Station
NAU	Northern Arizona University
NCSU	North Carolina State University
NECA	Northeastern Chemical Association
Nemours OHEI	Office of Health Equity and Inclusion
NIGMS	National Institute of General Medical Sciences
NIH	National Institute of Health
NSF	National Science Foundation
NSF BMAT	National Science Foundation Biomaterials
NSF DMR	National Science Foundation-Division of Materials Research
NSF EPSCoR	National Science Foundation Established Program to Stimulate Competitive Research
NSF MCB	National Science Foundation- Molecular & Cellular Biosciences
NSF REU	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-HESSP	Office of Health Equities & Inclusion- Health Equities Summer Scholar Program
OSCAR	Optical Science Center for Applied Research
Pattison	Hellen Pattison Scholar Award
Plastino	David A. Plastino Scholar Award
PPF	Public Policy Fellow
PVAB	Pre-veterinary Medicine & Animal Biosciences
PSU	Pennsylvania State University
RCWF	Research & Creative Works Fund
REACT	Research Experiences to Advance Chemists in Training
RPI	Rensselaer Polytechnic Institute
SPPA PPF	School of Public Policy & Administration Public Policy Fellow
SE	Science & Engineering Scholars
SF	Summer Fellowship
SLS	Service Learning Scholars
SLF	Service Learning Fellow
Stetson	Milton H. Stetson Memorial Fellowship
TJU	Thomas Jefferson University
TSU	Truman State University
UDRF	University of Delaware Research Foundation
UDRF-REU	University of Delaware Research Foundation Research Experience for Undergraduates
UF	University of Florida
UMBC	University of Maryland- Baltimore County
UMCP	University of Maryland- College Park
UMES	University of Maryland- Eastern Shore
UNC-W	University of North Carolina - Wilmington
UPR	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)
HFGCC Surgically Resectable Esophageal Cancer: An Institution Experience (2002-2017)

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, Biochemisty/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

NEMOURS BIOMEDICAL RESEARCH

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) Sylviann 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 Opium 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, Opthalmology (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

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

PATHOLOGY

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

MEDICAL LABORATORY SCIENCES

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)

NURSING

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

KINESIOLOGY & APPLIED PHYSIOLOGY

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 Roeper, 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 Sway 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

PHYSICAL THERAPY

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

72) Elizabeth deBruin, Medical Diagnostics (DRI)
Michele Lobo, Physical Therapy
Does Postural Support Affect Reaching Ability Across Age in Infants with Motor Delays?

73) Ellie Montufar Wright, Biological Sciences (INBRE)
Michelle Lobo, Physical Therapy
The Effect of the Playskin Lift ™Exoskeletal Garment on Reaching Abilities in Children with Arthrogryposis Multiplex Congenita

74) Kayla Morrell, Biological Sciences (S&E)
Michele Lobo, Physical Therapy
The Relation Between Gross Motor Development and Means-End Problem Solving in Infancy

75) Aaron Rubin, History Education (UDRF-REU)
Michele Lobo, Physical Therapy
A Novel Smart Garment for Tracking Infants' Body Position: Validity and Reliability

76) Kimberly Tena-Diaz, Biological Sciences (GPS)
Michele Lobo, Physical Therapy
Testing the Reliability and Validity of the Novel Means-End Problem Solving Assessment Scale

77) Dara Priester, Actuarial Science (INBRE)
Susanne Morton, Physical Therapy
Using Transcranial Direct Current Stimulation to Enhance Learning of a New Walking Pattern

78) Timothy Gouge, Neuroscience (INBRE)
Darcy Reisman, Physical Therapy
Factors Influencing Step Activity After Stroke

79) Kyle Ball, Athletic Training (INBRE)
Karin Grävare Silbernagel, Physical Therapy
Reliability of Continuous Shear Wave Elastography (cSWE) at the Patellar Tendon

80) Claire Hollyer, Exercise Science (INBRE)
Karin Grävare Silbernagel, Physical Therapy
Changes in Running Mechanics in Patients with Achilles Tendinopathy Throughout a 30-Minute Run

81) Samantha Hornsby, Exercise Science (CPWPT)
Karin Grävare Silbernagel, Physical Therapy
Differences in Loading Patterns Between Walking and Running in Patients with Achilles Tendinopathy

82) Luke Tucker, Biomedical Engineering/Biomechanics (CBER NSF REU) (NCSU)
Karin Grävare Silbernagel, Physical Therapy
The Effect of Wedging on Weight Bearing and Muscle Activity with Ambulating in a Walking Boot

83) Macy Oteri, Exercise Science (INBRE)
Megan Sions, Physical Therapy
Exploration of Factors Related to Fall Risk Among Adults with Lower-Limb Loss

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)

BIOLOGICAL 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 αVβ8- 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-Lanbert, 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 Compunds 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 Celf1 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 Celf1 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 Florescent 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 Dipeptie 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 IncA Using Molecular Dynamics Simulations

59) Phoebe Hertler, Chemistry (Plastino)
Joel Rosenthal, Chemistry & Biochemistry
Synthesis of Cobalt Tetrapyrrole Towards Use in O2 Reduction

60) Roxanna Fouladi, 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 Stereospecific, 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 Favichia, 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, Cooperative Extension, Animal & Food Sciences, Entomology & Wildlife Ecology, Environmental Science, Applied Economics & Statistics, Plant & Soil Sciences, Marine Studies, Geological Sciences, Geography, Human Ecology, Public & Allied Health Sciences, Human Development & Family Sciences, Education, Business Administration)

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 Macrocyclic 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 Transportion 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
Metabolic Impact of Taurine on Human Embryonic Kidney Cells

36) Victoria Dortenzio, PVAB (CANR Summer Institute)
Carl Schmidt, Animal & Food Sciences
Hy-Line Layers

37) Kathryn Ellwood, ANFS (S&E)
Carl Schmidt, Animal & Food Sciences
Impact of Heat Stress on Human Embryonic Kidney Cell Balance

ENTOMOLOGY & WILDLIFE ECOLOGY

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

42) Alec Nixon, Wildlife Ecology & Conservation (CANR Unique Strengths)
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
Determing 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)
Assessmesnt 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) Adaeze 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 Gleghorn, Biomedical Engineering
Understanding the Role of the Physical Extracellular Microenvironment in Leukemic Stem Cell Quiescence

17) Laurel Schappell, Biomedical Engineering (INBRE)
Jason Gleghorn, 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 Adaption

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)
Cathrine 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) Moujhuri 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, Mechnical 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

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
Elucidating 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 Procak, 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 Coflin, 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

85) Christopher McMahon, Mechanical Engineering (S&E)
Ioannis Poulakakis, Mechanical Engineering
Optimization and ROS Simulation of SPEAR Robotic Leg

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

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

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

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

90) Theressa 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

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

MATERIALS SCIENCE & ENGINEERING

92) 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

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

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

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

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

97) 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, Linguistics & Cognitive Science, Computer & Information Sciences, Electrical & Computer Engineering, Mathematical Sciences, Physics & Astronomy)

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)
Mary Dozier, 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 Walzl, 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 Circuitry 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
TBA

53) Ryan Geary, Computer Engineering (S&E)
Mark Mirotznik, Electrical & Computer Engineering
Additive Manufacturing of Pharmaceuticals

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 Makrogiannis, 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 DiIorio, 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 Chimsuti, 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 Mision 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

Amanda Binning, Robert Kuntz & Emma Ruggiero, Landscape Architecture (SLS)
Jules Bruck, Plant & Soil Sciences
Rural Community Revitalization Through Green Infrastructure Design & SITES Assessment

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, Womens 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

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

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, Mechnical 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 Populace

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

CHANGING POLITICAL FUTURES (ROOM 215)

Moderator: Marie Laberge, Women's Studies

Andrew Casper, Political Science (AHSS)
Flavio Hickel, Political Science & International Relations
Rhetoric & The American Presidency

Rachel Evans, Womens Studies (GPS)
Marie Laberge, Women's Studies
One Nation Under God?: The Evangelical Embrace of a Higher Political Power

Eden Negusse, Political Science (McNair)
Anne Boylan, History
Defining Incorrigibility: The Legacy of Delaware's Delinquent Black Girls, and the Professional Black Women Who Worked to Reform Them

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 Wolfle, 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-García, Art Conservation
Art Rules! Art and Science Outreach at Winterthur Museum and Salvation Army, Wilmington

Erica Haas, Tristan Leung, Danny Pineyro & 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

DONORS AND CONTRIBUTORS

University of Delaware

Alfred Lerner College of Business and Economics
Catalysis Center for Energy Innovation
Center for Biomechanical Engineering Research
Center for Composite Materials
Center for Food Systems & Sustainability
Center for Community Research & Service
College of Agriculture & Natural Resources
College of Arts & Sciences
College of Earth, Ocean & Environment
College of Education & Human Development
College of Engineering
College of Health Sciences
Community Engagement Initiative
Delaware Biotechnology Institute
Delaware Energy Institute
Delaware Environmental Institute
Department of Animal & Food Sciences
Department of Anthropology
Department of Art & Design
Department of Behavioral Health & Nutrition
Department of Biological Sciences
Department of Business Administration
Department of Chemical & Biomolecular Engineering
Department of Chemistry & Biochemistry
Department of Civil & Environmental Engineering
Department of Computer & Information Sciences
Department of Economics
Department of Electrical & Computer Engineering
Department of Entomology y & Wildlife Ecology
Department of Fashion & Apparel Studies
Department of Human Development & Family Studies
Department of Kinesiology & Applied Physiology
Department of Linguistics & Cognitive Science
Department of Marine Studies
Department of Mathematical Sciences
Department of Mechanical Engineering
Department of Medical Laboratory Sciences
Department of Physics & Astronomy
Department of Plant & Soil Sciences
Department of Psychological & Brain Sciences
Department of Sociology & Criminal Justice
Institute for Global Studies
Institute for Public Administration
Office of Graduate & Professional Education
Office of the Provost
Office of the Vice Provost for Research
Student Support Services Program
Undergraduate Research Program
UDairy Creamery
Unidel Foundation
University of Delaware Cooperative Extension
University of Delaware Environmental Institute
University of Delaware Research Foundation
University Honors Program

Other Contributors

Joan Bennett Scholarship
Chemistry Alumni Fellowships
Delaware Governor's Biotechnology Fellowship
Delaware Community Foundation
Delaware Rehabilitation Institute
E.I. DuPont de Nemours & Co
Ethel and Donald Hofmann Scholars Endowment
General Electric Foundation
David M. Heitzer Award
IDeA Networks of Biomedical Research Excellence program (INBRE)
Ronald E. McNair Post-Baccalaureate Scholars Program
Burnaby Munson
National Science Foundation Chemistry Research Experience for Undergraduates Program
National Science Foundation's Established Program to Stimulate Competitive Research (EPSCoR)
National Science Foundation Nanotechnology Undergraduate Education
National Institute of General Medical Sciences
Northeastern Chemical Association (NECA)
NUCLEUS
Research Experiences to Advance Chemists in Training (REACT)
Hellen Pattison Scholar Award
David A. Plastino Scholar Award
David Roselle Scholars
Milton H. Stetson Memorial Fellowship
Charles Peter White Fellowship
Vince Baro Scholarship Fund

Publicity

Crystal Felty, Composer, University Printing
Rebecca Ramos, Composer, University Printing
Joellen Rathbun, Copy Center Supervisor, University Printing
Michael Czerepak, Manager, University Printing

Finally, we would like to thank all of the mentors at the University of Delaware, outside universities and institutions and community partners who have been working with and guiding undergraduate students this summer.

COMMUNITY PARTNERS

A.I. duPont Hospital for Children
The Andrew McDonough B+ (Be Positive) Foundation
Career and Life Studies Certificate Program (Summer) (UD)
Center for Disabilities Studies: Summer Career & Life Studies Certificate (Summer CLSC) Program (UD)
The City of Wilmington Department of Parks and Recreation
Clarence Fraim Boys and Girls Club
Colonial School District
Colonial School District Summer Feeding Program at Eisenberg Elementary School
Delaware Association of School Administrators
Delaware Chief School Officer's Association
Delaware Controller General's Office
Delaware Department of Transportation and DelDOT's Delaware Transit Corporation
Delaware General Assembly
Delaware Growers
Delaware Higher Education Office
Delaware Office of Management and Budget
Delaware Office of State Planning Coordination
Delaware River and Bay Authority
Delaware's Senior Centers
Delaware State Fair
The Dual School
The Early Learning Center (UD)
Fresh to You at the Helen Graham Cancer Center
Girls Inc.
Greater Lewes Community Village
Hickory Tree Community Center (Delaware State Housing Authority)
Hispanic Student, Parents and Mentors Association, Sussex County
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
Rick VanStory Resource Center
Ritsona Refugee Camp in Chaldika, Greece (Cross Cultural Solutions)
St. Michael's the Archangel Catholic Church, Georgetown
The Salvation Army Summer Camp
SummerCollab
Sussex County 4-H Afterschool Program
Town of Bridgeville
Town of Laurel
Town of Lewes
Upward Bound Math and Science
The Warehouse Project
Winterthur Museum, Garden and Library
YMCA of Delaware

ACKNOWLEDGEMENTS

Convener: Iain Crawford, Faculty Director, Undergraduate Research Program
Lauren Barsky, Associate Director, Undergraduate Research Program
Sujata Bhatia, Faculty Director, McNair Scholars Program
Stephanie Espie, Program Assistant, Undergraduate Research Program
Diamond Higgin, Program Assistant, McNair Scholars Program
Darian Lawrence, Program Assistant/RA, McNair Scholars Program
Mary Ann Null, Program Coordinator, Undergraduate Research Program
Kelsey Obringer, Senior Program Assistant, McNair Scholars Program
Susan Serra, Assistant Director of Service Learning, Community Engagement Initiative
Jillian Silverman, Program Assistant, Undergraduate Research Program
Judi Smith, Administrative Assistant, Undergraduate Research Program
Victoria Sunnergren, Program Assistant Liaison, Undergraduate Research Program
Kristen Todd, Program Assistant/RA, Undergraduate Research Program
The Alliance of Summer Scholars