COLLABORATIVE RESEARCH AND INNOVATION PARTNERSHIPS

2023 UNDERGRADUATE SUMMER RESEARCH AND INNOVATION SYMPOSIUM

And

National Academy of Inventors (NAI) – NJIT Innovation Day

JULY 26-27, 2023

PROGRAM

2023 Undergraduate Summer Research Symposium

July 26-27, 2023
Campus Center, Ballroom A & B

Welcome!

The 2023 NJIT Undergraduate Summer Research and Innovation Symposium integrated with the Innovation Day will be held on July 26-27, 2023, featuring distinguished keynote talks from Robert Cohen, Chair, NJIT Board of Trustees and President, Stryker Digital, Robotics, and Enabling Technology; Dereje Agonafer, Presidential Distinguished Professor at UTA and Member, National Academy of Engineering and The Academy of Medicine, Engineering and Science of Texas, and Fellow of the national Academy of Inventors; and Jamie Renee, Executive Director, National Academy of Inventors. President Teik Lim will open the symposium with welcome remarks. More than 150 undergraduate students will be presenting their summer research and innovation projects at the 2023 Summer Research Symposium. These students are from NJIT through NJIT URI programs and other top national universities through NSF REU sites grants, and the Heritage Institute of Technology, India. Best innovation projects will be awarded the Dr. James Stevenson Innovation Award: first, second and third prizes of $1,000, $750 and $500, respectively, along with 5 honorable mentions of $100 each.

Programs included:

AEOP (Army Educational Outreach Program)
Bergen Community College (BCC) - Chemical and Materials Engineering Dept Collaboration
Heritage Institute of Technology (HIT, India) Summer Research
Honors Summer Research Institute (HSRI)
McNair Scholar Program
New Jersey Innovation Acceleration Program
New Jersey Space Grant Consortium
NSF iCorps NJIT Site Program
NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus
NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention
NSF Research Experience of Undergraduate (REU) Program for Optics and Photonics: Technologies, Systems, and Devices
NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences
URI Provost Summer Research Fellowship Program

2023 Undergraduate Summer Research Symposium

and

National Academy of Inventors (NAI) – NJIT Innovation Day

Agenda

July 26, 2023: Ballroom A&B, Student Campus Center

8.30 AM – 9.00 AM:	Registration and Breakfast
9.00 AM – 9.30 AM:	Welcome Remarks Teik Lim, President Atam Dhawan, Interim Provost and Senior Executive Vice President
9.30 AM – 9.45 AM:	Introductions of URI External Advisory Board Members
9.45 AM - 11.00 AM:	URI Summer Research Symposium Session - 1 Bioscience and Bioengineering - 1
11.00 AM – 11.20 AM:	Coffee Break
11.20 AM – 12.15 PM:	URI Summer Research Symposium Session -2 Bioscience and Bioengineering – 2
12.15 PM – 1.00 PM:	Lunch and Networking
1.00 PM – 2.30 PM:	URI Summer Research Symposium Session -3 Bioscience and Bioengineering – 3 Data Science and Management
2.30 PM – 2.45 PM:	Coffee Break
2.45 PM – 4.00 PM:	URI Summer Research Symposium Session -4 Material Science and Engineering

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July 27, 2023, Ballroom A&B, Student Center

8.30 AM – 9.00 AM:	Registration and Breakfast
9.00 AM - 9.10 AM:	Introduction to the NAI-NJIT Workshop and Welcome Remarks Teik Lim, President Atam Dhawan, Interim Provost and Senior Executive Vice President

2023 Undergraduate Summer Research Symposium

Agenda (Continued)

9.10 AM - 9.40 AM:	Distinguished Keynote Presentation -1 Robert Cohen, Chair, Board of Trustees and Inventor President, Stryker Digital, Robotics, and Enabling Technology
9.40 AM - 10.20 AM:	Distinguished Keynote Presentation -2 Dereje Agonafer, Presidential Distinguished Professor, UTA Member, National Academy of Engineering; Member, The Academy of Medicine, Engineering and Science of Texas Fellow: AAAS, ASME and NAI
10.20 AM - 10.30 AM:	Break
10.30 AM - 11.30 AM:	URI Summer Research Symposium Session -5 Robotics and Machine Intelligence
11.30 AM - 1.00 PM:	NAI-NJIT Chapter Launch and Induction Ceremony
	11.30 AM – 11.45 AM: State of the NAI-NJIT Chapter Atam Dhawan, President, NAI-NJIT Chapter
	11.45 AM – 12.15 PM: Distinguished Keynote Presentation -3 Jamie Renee, Executive Director, NAI
	12.15 PM – 12.30 PM: NAI Chapter Induction Ceremony and Closing Remarks
	12.30 PM – 1.00 PM: Networking and Lunch
1.00 PM – 2.00 PM:	URI Summer Research Symposium Session -6 Environment and Sustainability
2.00 PM – 2.15 PM:	Coffee Break
2.15 PM – 3.00 PM:	URI Summer Research Symposium Session -7 Environment and Sustainability
3.00 PM – 3.15 PM:	Break
3.15 PM- 4.00 PM:	Dr. James Stevenson Innovation Awards

Biographical Sketch of Dr. James Stevenson

Jim Stevenson, PhD: Jim Stevenson was a Corporate Fellow at Honeywell International from 1996 until his retirement in March of 2011. His professional work at Honeywell focused on polymer and composite materials and applications for mechanical and electronic structures and enclosures in an aerospace environment. Nine patents and 17 publications followed from this work.

Following a postdoctoral year at Columbia University, Dr. Stevenson joined the Chemical Engineering Department at Cornell University where he earned tenure in 1977. He was a founding member of the Cornell Injection Molding Project, was highly rated for his teaching, and prepared 17 publications. He earned his M.S. and Ph.D. degrees in Chemical Engineering at the University of Wisconsin, Madison and a B.S.Ch.E. from Rensselaer Polytechnic Institute.

Prior to joining Honeywell, Dr. Stevenson was Director of Research at Trexel, a start-up company near Boston commercializing microcellular foam technology. He proposed injection molding as the preferred foaming process, a result that led to nine patents. For the previous 19 years Dr. Stevenson served in technical and management positions with GenCorp, Inc. in Akron, OH. One development of the Extrusion Laboratory, which he supervised, was curved extrusion technology. While at GenCorp, Dr. Stevenson received eight patents and published 23 articles, two book chapters, and a book *Innovation in Polymer Processing: Molding*.

After retirement from Honeywell, Dr. Stevenson founded a consulting company, Stevenson PolyTech LLC, which specializes in polymer material/ process development and industrial short courses with more than 45 presentations worldwide. During his retirement, Dr. Stevenson helped to organize and funded the TechQuest competition which, now in its seventh year, awarded five innovation prizes and fellowships to NJIT undergraduates. He was also instrumental in setting up Innovation Day which celebrates the numerous technical awards won by NJIT undergraduates and hosts electronic presentations of their many innovative projects. Jim served as a member of the URI External Advisory Board and predecessor organizations since 2012. Jim and his wife Steffi also supported endowed undergraduate scholarships for NJIT students primarily from Irvington and Newark high schools. In 2017, Jim received the *Special Friend of the University* award for outstanding contributions by a non-alumnus. He also served on the Board of Directors of the Honeywell retirees association.

Biographical Sketches: Keynote Speakers

Dereje Agonafer, PhD is a Presidential Distinguished Professor in the Department of Mechanical and Aerospace Engineering. He heads two centers and is “Site Director of NSF IUCRC in Energy Efficient Systems” and Director of “Electronics, MEMS and Nanoelectronics Systems Packaging

Dereje Agonafer, PhD (Continued)

Center", and is now building a new center called RAHIS (Reliability Assessment in Heterogenous Integrated Systems). After receiving his PhD at Howard University, he worked for 15 years at IBM

and in 1991, at IBM, he was awarded the "IBM Outstanding Technical Achievement Award in Appreciation for Computer Aided Thermal Modeling." Since joining UTA in 1999, he has graduated over 250 graduate students (a record for the University) including 32 PhDs. Professor Agonafer is currently advising 15 PhDs and several MS students. His current primary research areas are in energy efficiency of data centers, heterogeneous integration, and 3D packaging and cooling. He has served on boards including at Howard University, CU Boulder, CCNY and Princeton University. He has offered numerous keynotes internationally. He has also won several awards including: 2008 Semi-Therm Thermi Award; 2009 InterPACK Excellence Award; 2014 ITHERM Achievement Award; 2014 NSBE Golden Torch Award honoree for Golden Torch Legacy; 1998 Distinguished Alum Award from the University of Colorado Boulder and Distinguished PhD Alum Award from Howard University. In 2019, he received the ASME prestigious Heat Transfer Memorial Award and 2020, he received a Lifetime Achievement Award by the SEMI-THERM Educational Foundation Thermal Hall of Fame. He is a Fellow of AAAS, ASME, and National Academy of Inventors. In 2019, Professor Agonafer was elected to the National Academy of Engineering. https://www.uta.edu/news/news-releases/2019/02/08/dereje-agonafer-elected-nae On March 2020, Professor Agonafer was presented the Howard University Alumni Award for Distinguished Postgraduate Achievement In the field of Engineering at the 153rd Charter Day Dinner.

Professor Agonafer is married to his wife Carolyn and they have two children; a son, Dr. Damena Agonafer who is Associate Professor & Clark Faculty Fellow at University of Maryland, College Park, and a daughter, Dr. Senayet Agonafer, a Regional Chief Radiologist at Lenox Hill Radiology in New York City.

Dr. Agonafer's research expertise areas include Electronic cooling: air, indirect liquid cooling, immersion cooling both single and two phase, thermal and Reliability Assessment in Heterogenous Integrated Systems, consulting - patent litigation as an expert witness/consultant in electronic cooling

Robert Cohen is a pioneer and successful inventor in the field of total knee and hip joint replacement implants and surgery with 29 US and international patents. His leading innovations and inventions revolutionized the orthopedic joint replacement implant concepts and associated surgical preparation procedures. He laid the foundation of the innovative design of joint implants for the construction of artificial knee and hip implants and enabling technologies for proven significant improvements enhancing the success, stability, efficacy, and longevity of implants avoiding the need of revision surgery. His technological inventions have been used in joint replacement knee/hip implants and surgical procedures for more than 4 million patients

Robert Cohen (Continued)

worldwide. He has built an ecosystem of technology innovations and their translation to clinical applications that have and continue to transform the entire global field of orthopedic joint replacement surgery creating a tremendous positive impact on patient mobility, quality of life, and global healthcare. He is a Fellow of the American Institute of Medical and Biological Engineering. He serves as the Chair of the Board of Trustees of the New Jersey Institute of Technology and member of numerous advisory boards including R&D Council of NJ, and American Institute for Medical and Biological Engineering.

Jamie Renee serves as the Executive Director for the National Academy of Inventors (NAI). Before assuming the role as Executive Director, she served for two years as the Senior Advisor to the Academy's Founder and President, Dr. Paul Sanberg, overseeing strategic partnerships, Board engagement, and team development. As Executive Director, she is committed to growing the impact of NAI through strategic partnerships and intentional member engagement and making strides in reaching and involving underrepresented populations in the innovation and invention ecosystem. Jamie has a heart for humanity and a mind for business. Korn Ferry ranked her business acumen in the top 2.5% of executive leaders worldwide. She has more than 25 years of corporate and nonprofit experience, having served in leadership roles within Home Depot, OAI, The Children's Home, United Way, and Habitat for Humanity. An alumna of the University of North Florida, Jamie is certified in Strength-based Professional Coaching from Gallup, Social Responsibility Planning from Yale, and Culture Creation from Harvard.

Before her appointment at the Academy, Jamie founded Good Day Solutions, a consulting firm specializing in strategic planning and culture alignment. Her firm worked with organizations and leaders committed to leveraging best practices that put people first and build a culture of inclusivity, trust, and cohesion. Jamie is passionate about bringing out the best in individuals and teams. She is committed to measuring and celebrating what matters and helps leaders identify and prioritize the key activities aligned with achieving success. She has extensive experience developing and implementing strategic plans, leadership and team coaching, and project implementation. Having overseen multiple mergers and acquisitions, her passion for building cohesive teams and inspiring positive change helps take teams and operations to new levels.

Jamie is an avid life-long learner and loves to teach what she learns. As part of her commitment to "be the good in the world," she founded Engage364, a nonprofit focused on mobilizing business leaders to engage with at-risk youth to help them discover and make a plan for their purpose.

URI External Advisor Board Members and Judges:

Brian Kiernan, Angel Investor, Executive VP and Chief Scientist (ret), InterDigital Communications Corp. (https://www.linkedin.com/in/brian-kiernan-a5636b11/)

Peggy McHale, Serial Entrepreneur | Board Director| Author, (https://www.linkedin.com/in/peggymchale/)

Pallavi Madakasira, Vice President at the Phase Change Solutions, (https://www.linkedin.com/in/pallavi-madakasira-3418aa/)

Alfredo Matos, President and CEO, A Z Matos, LLC (https://www.linkedin.com/in/alfredo-al-matos-bs-msee-mba-47abb627/)

Harry Moore, Jr., Graybeard Solutions LLC

Manish Patel, CEO, TrickyWater LLC (www.trickywater.com) (https://www.linkedin.com/in/manish-patel-innovate/)

Shashi Patel, Manager – Engineering, PSEG (https://www.linkedin.com/in/shashikant-patel-1073161b/)

Govi Rao, Co-Founder, Carbon Group Global (https://carbongroup.global/) (https://www.linkedin.com/in/govirao/)

2023 Undergraduate Summer Research Symposium

July 26, 2023 **Morning Sessions**

First Name	Last Name	Major	Title of Project	Presentation Session	Presentation Time	Co-Presenter
Faith	Adams	Biomedical Engineering	Investigating EDC-Crosslinked Collagen Scaffolds for Use in Skeletal Muscle Regeneration	Bioscience and Bioengineering	9:45 AM	
Bryan	Aguilar	Biochemistry	Protein Engineering Using Directed Evolution for Bioremediation	Bioscience and Bioengineering	9:48 AM	
Marissa	Christenson	Biomedical Engineering	3D Muscle Shape Reconstruction to Establish the Relationship Between Muscle Shape and Function	Bioscience and Bioengineering	9:51 AM	
Evan	Correa	Biology	Investigating the Effect of Optogenetically Activating Dmrt3a in Larval Zebrafish	Bioscience and Bioengineering	9:54 AM	
Anushka	Dixit	Biochemistry	Applying Ultrafast Protein Digestion in Microdroplets to Hydrogen-Deuterium Exchange Mass Spectrometry (HDX-MS)	Bioscience and Bioengineering	9:57 AM	
Chelsea	Garcia	Mechanical Engineering	Accounting for Mechanical Behavior of Skin to Minimize Harvested Skin Area in Skin Grafting	Bioscience and Bioengineering	10:00 AM	
Oliwia	Gorska	Biology	Epigenetic Signatures for Age-At-Death Estimation in Human Remains	Bioscience and Bioengineering	10:03 AM	
Kaylie	Green	Bioengineering/Applied Mathematics	Targeted Drug Delivery: Investigating Protein Corona Behavior	Bioscience and Bioengineering	10:06 AM	
Anushri	Gupta	Biotechnology	Evaluation of Hydrogel Scaffolds for Myocardial Regeneration	Bioscience and Bioengineering	10:09 AM	
George	Hanna	Biomedical Engineering	Extraction of Heart Rate and Respiration Rate from Raw Optical Intensity Signals in Pediatric Populations: An fNIRS Study	Bioscience and Bioengineering	10:12 AM	
Allison	Harbolic	Biology	Identifying the Distribution of Nanoplastics in Mouse Placenta	Bioscience and Bioengineering	10:15 AM	
Elizabeth	Hervias	Chemical Engineering	Electrospun PVDF Nanofibers for Early Cancer Detection via Acoustic Wave Sensing	Bioscience and Bioengineering	10:18 AM	
Ricardo	Inoa	Biology	Exposure Guidelines For Dermal Diffusion of Chemical Warfare Agents	Bioscience and Bioengineering	10:21 AM	
Sriya	Jidugu	Biochemistry	The Order of Madness: Patient Categorization in the Toptasi Asylum	Bioscience and Bioengineering	10:24 AM	Vidhi Dholakia
Mrunmayi	Joshi	Biology, Mathematical Sciences	Dural Electrical Stimulation to Motor Cortex after Fluid Percussion Injury Results in Motor Function Improvement	Bioscience and Bioengineering	10:27 AM	
Haripriya	Kemisetti	Data Science	Inattentional Blindness Paradigm: Can You See the Forest for the Trees?	Bioscience and Bioengineering	10:30 AM	
Daniel	Kidon	Biomedical Engineering	Traumatic Brain Injury Simulating Blasting Device Characterization	Bioscience and Bioengineering	10:33 AM	
Mason	Kovach	Biology	Virtual Analysis of Exoskeletal-Assisted Walking	Bioscience and Bioengineering	10:36 AM	
Peter	Kutuzov	Biochemistry	Determining the Synergistic Effects of ECM Coating on Axonal Growth in Collagen Gel 3D-Model	Bioscience and Bioengineering	10:39 AM	
Robert	Lodge	Biomedical Engineering	Liraglutide for Low-Level Blast TBI Recovery	Bioscience and Bioengineering	10:42 AM	
Priya	Marella	Biology	Role of Collagen in Hair Follicle Regeneration	Bioscience and Bioengineering	10:45 AM	
Resty	Mercado	Biomedical Engineering	Manipulation of Burst Pressure within FRESH Vascularization	Bioscience and Bioengineering	10:48 AM	
Jadhy	Michalowski	Mechanical Engineering	Peptide-Peptide Interactions that Account for Multicomponent Fibrils	Bioscience and Bioengineering	10:51 AM	
Saad	Mohammed	Biology	Establishing An Assay for Visual Desensitization in Larval Zebrafish	Bioscience and Bioengineering	10:54 AM	

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First Name	Last Name	Major	Title of Project	Presentation Session	Presentation Time	Co-Presenter
Rajal	Vyas	Biomedical Engineering	Machine Learning Algorithm to Detect Skin Cancer Boundary	Material Science and Engineering	10:57 AM	
Stuti	Mohan	Biomedical Engineering	Identifying a Novel Concussion Metric through Foot Tapping Measurement	Bioscience and Bioengineering	11:21 AM	
Josuel	Morel	Biomedical Engineering	Combinatorial SAPs with Tunable Anti-Microbial Effect	Bioscience and Bioengineering	11:24 AM	
Aliza	Mujahid	Biomedical Engineering	Enhancing Skin Grafting Efficiency: A New Method for Estimating Skin Expansion Ratio Based on Skin's Geometric and Mechanical Properties	Bioscience and Bioengineering	11:27 AM	
Maira	Nadeem	Biochemistry	Testing the Toxicity of Nanoplastics in the Ovary	Bioscience and Bioengineering	11:30 AM	
Endy	Nava	Mechanical Engineering	Enhanced Biomarker Detection in Microfluidic Biosensing Platforms	Bioscience and Bioengineering	11:33 AM	
Anne	Nong	Chemical Engineering	Assessment of Photobase Generator BODIPY-TMG for Cancer Treatment	Bioscience and Bioengineering	11:36 AM	
Ricardo	Otake	Chemical Engineering	Effects of Electromagnetic Intensity on PME and T47D Cells	Bioscience and Bioengineering	11:39 AM	
Alexis	Palmere	Biochemistry	Probing the Stereospecific Rearrangements of Carbocations	Bioscience and Bioengineering	11:42 AM	
Taylor	Pape	Biology	Smart Biosensors with Machine Learning for Objective Pain Assessment	Bioscience and Bioengineering	11:45 AM	
Suhas	Parise	Biology	The Effect of Immunopeptides on the Triple-Negative Breast Cancer T-Cell Activation Pathway Mediated by CD45	Bioscience and Bioengineering	11:48 AM	
Siya	Patel	Biology	Characterization of Apoptotic Peptides to Attack Triple Negative Breast Cancer	Bioscience and Bioengineering	11:51 AM	
Riya	Patel	Biomolecular Science	Integrated electronics to mimic tumor cell response to electrical stimulations	Bioscience and Bioengineering	11:54 AM	
Disha	Patil	Biomedical Engineering	Using DTI to Study Changes in White Matter Tracts in the Brain to Identify Mild TBI	Bioscience and Bioengineering	11:57 AM	
Matthew	Fleishman	Industrial Engineering	Smartphone Application For Warning Vulnerable Road Users (Bicyclists) of Vehicles in Blind Spots	Material Science and Engineering	12:00 PM	
						Afternoon Sessions
Nicole	Piccininni	Biology	Investigation of Polymer Nanoparticles for Drug Delivery	Bioscience and Bioengineering	1:00 PM	
Alixs	Pujols	Forensic Science in Biology	Impact of Nanoplastics on Ovarian Hormone Production	Bioscience and Bioengineering	1:03 PM	
Areej	Qamar	Biomedical Engineering	A Smart and Portable Peristaltic Pump for Small-Volume Liquid Handling	Bioscience and Bioengineering	1:06 PM	Samuel Landestoy
Juan	Ramirez	Biomedical Engineering	Cloning of Knockout Gene Models to debulk Glycocalyx of Glioblastoma Multiforme	Bioscience and Bioengineering	1:09 PM	
Dinora	Rivas Rodriguez	Molecular Biology	Electromagnetic Field Effects on T47D Cells with 17b-estradiol as Pathway for Improving Drug Delivery Systems Efficiency and Non-invasive Breast Cancer Treatments	Bioscience and Bioengineering	1:12 PM	
Sofia	Ruiz	Chemical Engineering	Utilizing Apoptotic Peptides to Combat Triple Negative Breast Cancer	Bioscience and Bioengineering	1:15 PM	

2023 Undergraduate Summer Research Symposium

First Name	Last Name	Major	Title of Project	Presentation Session	Presentation Time	Co-Presenter
Shalom	Salvi	Mathematical Science	Confined Collective Motion of Bristle-Bots: Modeling and Experiments	Bioscience and Bioengineering	1:18 PM	
Danna Valentina	Sanchez Hernandez	Biomedical Engineering	Long-term, reversible, low-impact bioinspired adhesive attachment for marine mammal biotelemetry applications	Bioscience and Bioengineering	1:21 PM	
Mira	Sapozhnikov	Forensic Science	Assessment of cognitive decline biomarkers in Alzheimer's Disease and substance abuse patients	Bioscience and Bioengineering	1:24 PM	
Vijay	Subramanian	Biology	Does mitochondrial DNA activate immune responses during TB infection?	Bioscience and Bioengineering	1:27 PM	
Dhanya	Sureshbabu	Biology	The Occurrence of Collective Behavior in Astyanax mexicanus	Bioscience and Bioengineering	1:30 PM	
Owen	West	Biomedical Engineering	Designer Peptide Signaling Quantified In Vitro	Bioscience and Bioengineering	1:33 PM	
Edem	Ammamoo	Biology	Use Of Machine Learning Models to Predict Cancer	Data Science and Management	1:36 PM	
Don	Bonifacio, Jr.	Computer Engineering	Tax Fraud Detection Using a Machine Learning Approach	Data Science and Management	1:39 PM	
Kevin	Diggs	Computer Science	Soundly Detecting Memory Leaks in the Linux Kernel	Data Science and Management	1:42 PM	
Fatimah	El-Belkasi	Forensic Science	The Implications of Visual Stimuli on Conferencing Platforms	Data Science and Management	1:45 PM	
Arin	Ghose	Computer Science & Engineering	Large Language Models For Predicting Functional Genetic Variant Candidates	Data Science and Management	1:48 PM	
Subhodeep	Ghosh	Computer Science and Engineering	A RLHF Framework to Promote Proportionate Fairness in LLMs	Data Science and Management	1:51 PM	
Sathvik	Gopu	Biology	Computational Methods for Human-Centered Perceptual Analysis of Work Spaces	Data Science and Management	1:54 PM	
Ricky	Hernandez	Information Technology	Privacy Aspects of Smart Medical Apps	Data Science and Management	1:57 PM	
Hehjun	Lim	Web and Information Systems	Identifying Fashion Trends Utilizing Color Analysis	Data Science and Management	2:00 PM	
Fernando	Mantilla	Computer Science	Shrines in the Ironbound	Data Science and Management	2:03 PM	
Erik	Mattson	Mathematical Sciences	Probabilistic Programming with Linear Systems	Data Science and Management	2:06 PM	
Ellison	O'Grady	Mathematical Sciences	Chaotic Scattering of Vortex Dipoles	Data Science and Management	2:09 PM	
Alex	Patchedjiev	Computer Science	Roman Street Shrine Database and Querying Interface	Data Science and Management	2:12 PM	
Tsewang	Sherpa	Computer Science	VROOM Management System	Data Science and Management	2:15 PM	
Amina	Anowara	Chemical and Biological Engineering	Porous Hydrogels As A Transducer Material In Microfluidic Electrochemical Cells	Material Science and Engineering	2:45 PM	
Shayna	Gentiluomo	Chemistry	Chemical Vapor Deposition as a Method of Synthesis for Titanium-carbide MXenes	Material Science and Engineering	2:48 PM	
Rohan	Ghosh	Electronics and Communication Engineering	Optical Properties of PbS and PbS/CdS Core-Shell Semiconductor Quantum Dots	Material Science and Engineering	2:51 PM	
Geordy	Jomon	Engineering	Computational Models For Liquid Gallium	Material Science and Engineering	2:54 PM	
Ayush	Kashyap	Electronics & Communication Engineering	Simulation And Characterization Of Oxide Based RRAMs	Material Science and Engineering	2:57 PM	

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First Name	Last Name	Major	Title of Project	Presentation Session	Presentation Time	Co-Presenter
Jeongtae	Kim	Computer Science	Cell-Laden Composite Hydrogel Bioinks with Human Bone Allograft Particles to Enhance Stem Cell Osteogenesis Allograft Particles to Enhance Stem Cell Osteogenesis	Material Science and Engineering	3:00 PM	
Sebastian	Mattio-Smith	Chemical Engineering	Stabilization of Lithium-Silicon Battery for Energy Storage	Material Science and Engineering	3:03 PM	
Melissa	Mello	Chemical Engineering	Designing Metal Fuels for Custom Thermite Compositions	Material Science and Engineering	3:06 PM	
Pia	Piazzi	Materials Engineering	Complete Rheological Characterization of Concentrated Emulsions	Material Science and Engineering	3:09 PM	
Maryom	Rahman	Chemical Engineering	Manufacturing a State-of the-Art Selector Valve for a Miniature Peptide Synthesizer	Material Science and Engineering	3:12 PM	
Marina	Sefen	Chemical Engineering	Novel MXene-Based Electrified Surface Coatings for Antiviral Air Filtration	Material Science and Engineering	3:15 PM	
Ana	Sierra-Maldonado	Chemistry	Fabrication of 2D TMDs based FET sensors for the detection of Per- and Polyfluoroalkyl Substances	Material Science and Engineering	3:18 PM	James Abraham
Matthew	Stickles	Chemical Engineering	Molecular Dynamics Simulations of Chemical Warfare Agent Surrogate Mixtures	Material Science and Engineering	3:21 PM	
Manuel	Tabares	Materials Engineering	Contact Angle Measurement	Material Science and Engineering	3:24 PM	
Idalia	Warren	Chemical Engineering	Viscosity and surface tension measurements of chemical warfare agent surrogates using acoustic levitation	Material Science and Engineering	3:27 PM	
Ritvik	Bordoloi	Electrical and Computer Engineering	Characterization Of Rram Devices for Neuromorphic Computations	Material Science and Engineering	3:30 PM	
Sahil	Molla	Mechanical Engineering	On-Chip Blood Plasma Self-Separation for Point-of-Care (POC) Devices	Material Science and Engineering	3:33 PM	
Shriyans	Roy	Electronics and Communication Engineering	Design and Evaluation of High-performance and Energy-efficient Processing in MRAM Accelerators	Material Science and Engineering	3:36 PM	

2023 Undergraduate Summer Research Symposium

July 27, 2023 **Morning Sessions**

First Name	Last Name	Major	Title of Project	Presentation Session	Presentation Time	Co-Presenter
Poulami	Basu	Computer Science Engineering	Traffic Forecasting with Vehicle-Centric Data and Advanced GNN-LSTM Models	Robotics and Machine Intelligence	10:30 AM	
Rituja	Bhattacharya	Electronics and Communication Engineering	Trajectory Clustering Analysis for Modelling Human Hand Motion Skills in Robotics	Robotics and Machine Intelligence	10:33 AM	
Sagnik	Chowdhury	Cyberpsychology	The Effect of Deepfakes on College Students' Political Opinions	Robotics and Machine Intelligence	10:36 AM	
Yousuf	Kanan	Computer Science	Enhancing Graph Features for Improved Roadway Speed Prediction Using GNN and LSTM with Vehicle-Connected Data	Robotics and Machine Intelligence	10:39 AM	
Jeremy	Kurian	Computer Science	Simulating Patient Behavior with Machine Learning Algorithms: The Case of an Ottoman Mental Institution	Robotics and Machine Intelligence	10:42 AM	Ari Kamat
Vignesh	Nethrapalli	Computer Science + Math	Improving Caption Data Diversity via Mood-Amplification for Audio-Language Tasks	Robotics and Machine Intelligence	10:45 AM	
Sohom	Sen	Computer Science and Engineering	Live SMPLX Model Control and Its Applications	Robotics and Machine Intelligence	10:48 AM	
Dylan	Ton-That	Computer Science	Real-Time Temperature Profile Forecasting in Metal Additive Manufacturing	Robotics and Machine Intelligence	10:51 AM	Salma Ghazi and Haley Patel
Roberto	Torres	Mechanical Engineering	Wall-Climbing Robotic System for Light and Shadow-Base Interactions	Robotics and Machine Intelligence	10:54 AM	
						Afternoon Sessions
Omar	Al-Zaman	Biology	Synthesis and Characterization of Ruthenium Based Photosensitizer Compounds	Environment and Sustainability	1:00 PM	
Colin	Arcaro	Electrical Engineering	Understanding the Impact of Solar, Magnetospheric, and Terrestrial Weather on the Ionosphere	Environment and Sustainability	1:03 PM	
Rafiatou	Bikienga	Medicinal biochemistry	Role of Granulosa Cells in phthalates toxicity	Environment and Sustainability	1:06 PM	
Melisa	Bilgili	Chemical Engineering	Computational Analysis of N8 Stabilized Isolated Single Metal Atom Catalysts for Electrochemical Reduction of CO2	Environment and Sustainability	1:09 PM	
Leah-Marie	Boake	Industrial Design	Space-Time-Studio: Interdisciplinary Collaboration in Studio Between Designers and Engineers	Environment and Sustainability	1:12 PM	
Robert	Bush	Physics	Sunquakes and Extreme Ultraviolet (EUV) waves	Environment and Sustainability	1:15 PM	
XingZhi (Gigi)	Chen	Chemistry	Investigation of Electrochemical Degradation of PFOA Using High Surface Area Electrodes	Environment and Sustainability	1:18 PM	
Austin	Dalton	Applied Physics	Analysis of Environmental Dependance of the HODI Instrument Calibrations	Environment and Sustainability	1:21 PM	
Annalyse	Dickinson	Physics	Investigation of the Relationship Between Mini-Filament Eruptions, Small-Scale Magnetic Flux Ropes, and Coronal Ejections, and Their Distribution in Relation to Coronal Holes	Environment and Sustainability	1:24 PM	
Nikita	Dubinin	Financial Technology	Blockchain Technology and its Applications in Plastic Recycling Industry Supply Chain	Environment and Sustainability	1:27 PM	
Joel	Duzha	Chemistry	Reversible Adsorption of Atmospheric Oxidized Mercury for Its Quantitative Chemically-Resolved Analysis	Environment and Sustainability	1:30 PM	
Sabastian	Fernandes	Applied Physics	Doppler Residuals on High Frequency Radio Signals	Environment and Sustainability	1:33 PM	
Joel	Florim	Civil Engineering	Monitoring Water Conductivity from Vehicle Splash and Spray to Optimize Road Salt Use	Environment and Sustainability	1:36 PM	

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First Name	Last Name	Major	Title of Project	Presentation Session	Presentation Time	Co-Presenter
Oluwanifemi	Fuwa	Biology	Algae Separation Using Recoverable Magnetic Particles	Environment and Sustainability	1:39 PM	
Saketh	Golla	Computer Science	Studying the Effects of Cholera on the Mentally Ill in the Ottoman Empire	Environment and Sustainability	1:42 PM	
Steven	Habeb	Biology	The Effect of Perfluorooctanesulfonic Acid (PFOS) on the Ovary	Environment and Sustainability	1:45 PM	
Michelle	Jojy	Biology	Effects of Nanoplastics on Gene Expression in the Placenta	Environment and Sustainability	1:48 PM	
Nathaniel	Kapleau	Physics and Computer Science	Magnetohydrodynamic Simulation of Coronal Magnetic Field Evolution and Eruption	Environment and Sustainability	1:51 PM	
Rahul	Laha	Electronics and Communication	Renewable Energy Systems Monitoring using IoT-Sensing and Digital Twin Platform	Environment and Sustainability	1:54 PM	
Adam	Leszczynski	Chemical Biology	Adsorption Behavior of PFAS to Microplastics	Environment and Sustainability	1:57 PM	
Emily	Luo	Computer Science	Predicting Solar Flare Indices from SHARP Parameter Dynamics using Convolutional Neural Networks	Environment and Sustainability	2:00 PM	
Arman	Manookian	Physics	Solar Prominences	Environment and Sustainability	2:15 PM	
Laila	Nashir	Chemistry	Reactivity of Gaseous Mercuric Bromide with Solid and Liquid Interfaces	Environment and Sustainability	2:18 PM	
Huu Minh Triet	Nguyen	Dual Mathematical Science and Applied Physics	Magnetohydrodynamic Simulation of Solar Magnetic Field Eruptions Triggered by Small Emerging Flux	Environment and Sustainability	2:21 PM	
Naya	Pared	Applied Physics	Trigger Mechanisms for Solar Flares	Environment and Sustainability	2:24 PM	
Jaiman	Parekh	Applied Physics and Computer Science	Nonlinear water waves: Theory & Experiment	Environment and Sustainability	2:27 PM	
Varsha Rao	Rayasam	Biology	Nanobubbles-enabled foam fractionation for efficient algal removal	Environment and Sustainability	2:30 PM	
Isaiah	Rejouis	Biology	Studying Xylemic Parameters for Drought Simulations	Environment and Sustainability	2:33 PM	
Hannah	Shahinian	Environmental Science	Mercury Sorption in Propanotrophs	Environment and Sustainability	2:36 PM	
Simona	Sotiri	Computational Physics	Exploring Solar Flares with the SolarDB Cyberinfrastructure	Environment and Sustainability	2:39 PM	
Luke	Thomas	Science/Engineering Transfer Pathway	Tracing Energetic Electrons in the Solar Corona	Environment and Sustainability	2:42 PM	
Carolyn	Toledo	Digital Design	Developing An Interactive VR/AR Museum Experience to Contextualize Van Gogh's Artwork	Environment and Sustainability	2:45 PM	
Mallory	Wickline	Meteorology and Atmospheric Science	"Jets" on the Sun: Joint Radio and Extreme Ultraviolet Observations	Environment and Sustainability	2:48 PM	
Kathryn	Wulf	Biochemistry	Uncovering the Function of Group-6 Propane Monooxygenases in Mycobacterium sp. DT1	Environment and Sustainability	2:51 PM	
Quentin	Young	Biology	RuPd Bimetallic Nanoparticle Catalyst for Electrochemical Degradation of 1,4-dioxane	Environment and Sustainability	2:54 PM	

NOTE: All times are TENTATIVE. If you are scheduled before lunch on Wednesday, you are expected to be there until the lunch break. If you are scheduled on Wednesday after lunch, you are expected to be there all afternoon. If you are scheduled on Thursday you are expected to be there until the end of the presentations.

****Students, please rehearse your presentations to meet the 3 minutes time limit. It will be strictly enforced.**

Schedule of Presentations

Research Presentation Area

Bioscience and Bioengineering

Name: Faith Adams **Department**: Department of Biomedical Engineering **Project Title**: Investigating EDC-Crosslinked Collagen Scaffolds for Use in Skeletal Muscle Regeneration **Faculty Advisor**: Dr. Jonathan Grasman **URI Program**: McNair Scholar Program	**Name**: Bryan Aguilar **Department**: Department of Chemistry and Environmental Science **Project Title**: Protein Engineering Using Directed Evolution for Bioremediation **Faculty Advisor**: Dr. Edgardo Farinas **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus
Name: Marissa Christenson **Department**: Biomedical Engineering **Project Title**: 3D Muscle Shape Reconstruction to Establish the Relationship Between Muscle Shape and Function **Faculty Advisor**: Jongsang Son **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Evan Correa **Department**: Biological Sciences **Project Title**: Investigating the Effect of Optogenetically Activating Dmrt3a in Larval Zebrafish **Faculty Advisor**: Dr. Kristen Severi **URI Program**: URI Provost Summer Research Fellowship Program

2023 Undergraduate Summer Research Symposium

Name: Vidhi Dholakia **Department**: Albert Dorman Honors College **Project Title**: The Order of Madness: Patient Categorization in the Toptasi Asylum **Faculty Advisor**: Dr. Burçak Özlüdil **URI program**: Honors Summer Research Institute (HSRI)	**Name**: Anushka Dixit **Department**: Chemistry and Environmental Science **Project Title**: Applying Ultrafast Protein Digestion in Microdroplets to Hydrogen-Deuterium Exchange Mass Spectrometry (HDX-MS) **Faculty Advisor**: Dr. Hao Chen **URI program**: Honors Summer Research Institute (HSRI)
Name: Chelsea Garcia **Department**: Department of Mechanical and Industrial Engineering **Project Title**: Accounting for Mechanical Behavior of Skin to Minimize Harvested Skin Area in Skin Grafting **Faculty Advisor**: Dr. Farid Alisafaei **URI Program**: McNair Scholar Program	**Name**: Oliwia Gorska **Department**: Forensic Science **Project Title**: Epigenetic Signatures for Age-At-Death Estimation In Human Remains **Faculty Advisor**: Sara Casado Zapico **URI Program**: Honors Summer Research Institute (HSRI)
Name: Kaylie Green **Department**: Chemical & Materials Engineering **Project Title**: Targeted Drug Delivery: Investigating Protein Corona Behavior **Faculty Advisor**: Dr. Kathleen McEnnis **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Anushri Gupta **Department**: Biomedical Engineering **Project Title**: Evaluation of Hydrogel Scaffolds for Myocardial Regeneration **Faculty Advisor**: Dr. Vivek A. Kumar **URI Program**: Heritage Institute of Technology (HIT) Summer Research
Name: George Hanna **Department**: Biomedical Engineering **Project Title**: Extraction of Heart Rate and Respiration Rate from Raw Optical Intensity Signals in Pediatric Populations: An fNIRS Study **Faculty Advisor**: Dr. Bharat Biswal **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Allison Harbolic **Department**: Chemistry and Environmental Science **Project Title**: Identifying the Distribution of Nanoplastics in Mouse Placenta **Faculty Advisor**: Dr. Genoa Warner **URI Program**: URI Provost Summer Research Fellowship Program
Name: Elizabeth Hervias **Department**: Mechanical and Industrial Engineering **Project Title**: Electrospun PVDF Nanofibers for Early Cancer Detection via Acoustic Wave Sensing **Faculty Advisor**: Dr. Lin Dong **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Ricardo Inoa **Department**: Chemical and Materials Engineering Department **Project Title**: Exposure Guidelines for Dermal Diffusion of Chemical Warfare Agents **Faculty Advisor**: Dr. Laurent Simon **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention
Name: Sriya Jidugu **Department**: Albert Dorman Honors College **Project Title**: The Order of Madness: Patient Categorization in the Toptasi Asylum **Faculty Advisor**: Dr. Burcak Ozludil **URI Program**: Honors Summer Research Institute (HSRI)	**Name**: Mrunmayi Joshi **Department**: Biomedical Engineering **Project Title**: Dural Electrical Stimulation to Motor Cortex after Fluid Percussion Injury Results in Motor Function Improvement **Faculty Advisor**: Dr. Ying Li **URI Program**: URI Provost Summer Research Fellowship Program
Name: Haripriya Kemisetti **Department**: Humanities and Social Sciences **Project Title**: Inattentional Blindness Paradigm: Can You See the Forest for the Trees? **Faculty Advisor**: Dr. Kaplan Yelda Semizer **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Daniel Kidon **Department**: BME **Project Title**: Traumatic Brain Injury Simulating Blasting Device Characterization **Faculty Advisor**: Dr. Pfister **URI Program**: URI Provost Summer Research Fellowship Program

2023 Undergraduate Summer Research Symposium

Name: Mason Kovach **Department**: Biomechanical Engineering **Project Title**: Virtual Analysis of Exoskeletal- Assisted Walking **Faculty Advisor**: Dr. Saikat Pal **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Peter Kutuzov **Department**: Biomedical Engineering **Project Title**: Determining the Synergistic Effects of ECM Coating on Axonal Growth in Collagen Gel 3D-Model **Faculty Advisor**: Dr. Grasman **URI Program**: Honors Summer Research Institute (HSRI)
Name: Robert Lodge **Department**: Biomedical Engineering **Project Title**: Liraglutide for Low-Level Blast TBI Recovery **Faculty Advisor**: Ying Li **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Priya Marella **Department**: Chemistry and Environmental Science **Project Title**: Role of Collagen in Hair Follicle Regeneration **Faculty Advisor**: Dr. Yuanwei Zhang **URI Program**: URI Provost Summer Research Fellowship Program
Name: Resty Mercado **Department**: Biomedical Engineering **Project Title**: Manipulation of Burst Pressure within FRESH Vascularization **Faculty Advisor**: Swaprakash Yogeshwaran **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Jadhy Michalowski **Department**: Department of Physics **Project Title**: Peptide-Peptide Interactions that Account for Multicomponent Fibrils **Faculty Advisor**: Dr. Cristiano Dias **URI Program**: URI Provost Summer Research Fellowship Program
Name: Saad Mohammed **Department**: Federated Department of Biological Sciences **Project Title**: Establishing an Assay for Visual Desensitization in Larval Zebrafish **Faculty Advisor**: Dr. Kristen Severi	**Name**: Stuti Mohan **Department**: BME/SAET **Project Title**: Identifying a Novel Concussion Metric through Foot Tapping Measurement **Faculty Advisor**: Chang Yaramothu **URI Program**: URI Provost Summer Research Fellowship Program
Name: Josuel Morel **Department**: Biomedical Engineering **Project Title**: Combinatorial SAPs with Tunable Anti-Microbial Effect **Faculty Advisor**: Dr. Vivek Kumar **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Aliza Mujahid **Department**: Mechanical Engineering **Project Title**: Enhancing Skin Grafting Efficiency: A New Method for Estimating Skin Expansion Ratio Based on Skin's Geometric and Mechanical Properties **Faculty Advisor**: Dr. Farid Alisafaei **URI Program**: Honors Summer Research Institute (HSRI)
Name: Maira Nadeem **Department**: Chemistry and Environmental Science **Project Title**: Testing the Toxicity of Nanoplastics in the Ovary **Faculty Advisor**: Dr. Genoa Warner **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Endy Nava **Department**: Mechanical and Industrial Engineering **Project Title**: Enhanced Biomarker Detection in Microfluidic Biosensing Platforms **Faculty Advisor**: Dr. Eon Soo Lee **URI Program**: McNair Scholar Program
Name: Anne Nong **Department**: Department of Chemistry and Environmental Science **Project Title**: Assessment of Photobase Generator BODIPY-TMG for Cancer Treatment **Faculty Advisor**: Yuanwei Zhang **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus	**Name**: Ricardo Otake **Department**: Biomedical Engineering **Project Title**: Effects of Electromagnetic Intensity on PME and T47D Cells **Faculty Advisor**: Luis Medina **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention

Name: Alexis Palmere **Department**: Department of Chemistry and Environmental Science **Project Title**: Probing the Stereospecific Rearrangements Of Carbocations **Faculty Advisor**: Dr. Pier Alexandre Champagne **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Taylor Pape **Department**: Chemistry and Environmental Science **Project Title**: Smart Biosensors with Machine Learning for Objective Pain Assessment **Faculty Advisor**: Dr. O. Sadik **URI Program**: McNair Scholar Program
Name: Suhas Parise **Department**: Federated Department of Biological Sciences **Project Title**: The Effect of Immunopeptides on the Triple-Negative Breast Cancer T-Cell Activation Pathway Mediated by CD45 **Faculty Advisor**: Dr. Horacio G. Rotstein **URI Program**: Honors Summer Research Institute (HSRI)	**Name**: Siya Patel **Department**: Biomedical Engineering **Project Title**: Characterization of Apoptotic Peptides to Attack Triple Negative Breast Cancer **Faculty Advisor**: Vivek Kumar **URI Program**: URI Provost Summer Research Fellowship Program
Name: Riya Patel **Department**: Biomedical Engineering **Project Title**: Integrated Electronics to Mimic Tumor Cell Response to Electrical Stimulations **Faculty Advisor**: Dr. Amir K. Miri **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Disha Patil **Department**: Biomedical Engineering **Project Title**: Using DTI to Study Changes in White Matter Tracts in the Brain to Identify Mild TBI **Faculty Advisor**: Dr. Bharat Biswal **URI Program**: Honors Summer Research Institute (HSRI)
Name: Nicole Piccininni **Department**: Chemical and Materials Engineering **Project Title**: Investigation of Polymer Nanoparticles for Drug Delivery **Faculty Advisor**: Dr. Kathleen McEnnis **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Alixs Pujols **Department**: Chemistry and Environmental Science **Project Title**: Impact of Nanoplastics on Ovarian Hormone Production **Faculty Advisor**: Dr. Genoa Warner **URI Program**: URI Provost Summer Research Fellowship Program
Name: Areej Qamar **Department**: Department of Biomedical Engineering **Project Title**: A Smart and Portable Peristaltic Pump for Small-Volume Liquid Handling **Faculty Advisor**: Dr. Amir K. Miri **URI Program**: URI Provost Summer Research Fellowship Program	**Name**: Juan Ramirez **Department**: Biomedical Engineering **Project Title**: Cloning of Knockout Gene Models to debulk Glycocalyx of Glioblastoma Multiforme **Faculty Advisor**: Alexander Buffone **URI Program:** McNair Scholar Program
Name: Dinora Rivas Rodriguez **Department**: Senior University Lecturer Chemical & Materials Engineering **Project Title**: Electromagnetic Field Effects on T47D Cells with 17b-estradiol as Pathway for Improving Drug Delivery Systems Efficiency and Non-invasive Breast Cancer Treatments **Faculty Advisor**: Nellone E Reid **URI Program:** Bergen Community College (BCC) - Chemical and Materials Engineering Dept Collaboration	**Name**: Sofia Ruiz **Department**: Biomedical Engineering **Project Title**: Utilizing Apoptotic Peptides to Combat Triple Negative Breast Cancer **Faculty Advisor**: Vivek Kumar **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention

Name: Shalom Salvi **Department**: College of Science and Liberal Arts **Project Title**: Confined Collective Motion of Bristle-Bots: Modeling and Experiments **Faculty Advisor**: Lushi Enkeleida **URI Program: URI** Provost Summer Research Fellowship Program	**Name**: Danna Valentina Sanchez Hernandez **Department**: Biological Sciences **Project Title**: Long-Term, Reversible, Low-Impact Bioinspired Adhesive Attachment for Marine Mammal Biotelemetry Applications **Faculty Advisor**: Brooke Flammang **URI Program**: URI Provost Summer Research Fellowship Program
Name: Mira Sapozhnikov **Department**: Chemistry and Environmental Science **Project Title**: Assessment of cognitive decline biomarkers in Alzheimer's Disease and Substance Abuse Patients **Faculty Advisor**: Dr. Sara Casado Zapico **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus	**Name**: Vijay Subramanian **Department**: Biology **Project Title**: Does Mitochondrial DNA Activate Immune Responses During TB Infection? **Faculty Advisor**: Mary Konsolaki **URI Program:** URI Provost Summer Research Fellowship Program
Name: Dhanya Sureshbabu **Department**: Biological Sciences **Project Title**: The Occurrence of Collective Behavior in Astyanax mexicanus **Faculty Advisor**: Dr. Daphne Soares **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Rajal Vyas **Department**: Electrical and Computer Engineering Technology **Project Title**: Machine Learning Algorithm to Detect Skin Cancer Boundary **Faculty Advisor**: Dr. Xuan Liu **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Optics and Photonics: Technologies, Systems, and Devices
Name: Owen West **Department**: Biomedical Engineering **Project Title**: Designer Peptide Signaling Quantified In Vitro **Faculty Advisor**: Dr. Vivek A. Kumar **URI Program:** URI Provost Summer Research Fellowship Program	

Research Presentation Areas

Data Science and Management

Name: Edem Ammamoo **Department**: Chemicals and Materials Engineering **Project Title**: Use of Machine Learning Models to Predict Cancer **Faculty Advisor**: Dr. Joshua Young **URI Program:** Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Don Bonifacio, Jr. **Department**: Martin Tuchman School of Management **Project Title**: Tax Fraud Detection Using a Machine Learning Approach **Faculty Advisor**: Ming F. Taylor **URI Program:** Honors Summer Research Institute (HSRI)

2023 Undergraduate Summer Research Symposium

Name: Kevin Diggs **Department:** Computer Science **Project Title:** Soundly Detecting Memory Leaks in the Linux Kernel **Faculty Advisor:** Martin Kellogg **URI Program:** URI Provost Summer Research Fellowship Program	**Name:** Fatimah El-Belkasi **Department:** Department of Humanities and Social Sciences **Project Title:** The Implications of Visual Stimuli on Conferencing Platforms **Faculty Advisor:** Dr. Yelda Semizer **URI Program:** Honors Summer Research Institute (HSRI)
Name: Arin Ghose **Department**: Computer Science **Project Title**: Large Language Models for Predicting Functional Genet ic Variant Candidates **Faculty Advisor**: Dr. Zhi Wei **URI Program:** Heritage Institute of Technology (HIT) Summer Research	**Name**: Subhodeep Ghosh **Department**: Computer Science **Project Title**: A RLHF Framework to Promote Proportionate Fairness in LLMs **Faculty Advisor**: Senjuti Basu Roy **URI Program:** Heritage Institute of Technology (HIT) Summer Research
Name: Sathvik Gopu **Department**: Department of Humanities & Social Science **Project Title**: Computational Methods for Human-Centered Perceptual Analysis of Work Spaces **Faculty Advisor**: Dr. Yelda Semizer **URI Program: Honors** Summer Research Institute (HSRI)	**Name**: Ricky Hernandez **Department**: Ying Wu College of Computing **Project Title**: Privacy Aspects of Smart Medical Apps **Faculty Advisor**: Dr. Shantanu Sharma **URI Program:** McNair Scholar Program
Name: Hehjun Lim **Department**: Department of Informatics **Project Title**: Identifying Fashion Trends Utilizing Color Analysis **Faculty Advisor**: Adam Spryszynski **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Fernando Mantilla **Department**: History Department **Project Title**: Shrines in the Ironbound **Faculty Advisor**: Dr. Louis Hamilton **URI Program: URI** Provost Summer Research Fellowship Program
Name: Erik Mattson **Department**: Mathematical Sciences **Project Title**: Probabilistic Programming with Linear Systems **Faculty Advisor**: Sundar Subramanian **URI Program:** URI Provost Summer Research Fellowship Program	**Name**: Ellison O'Grady **Department**: Mathematical Sciences **Project Title**: Chaotic Scattering of Vortex Dipoles **Faculty Advisor**: Roy Goodman **URI Program:** URI Provost Summer Research Fellowship Program
Name: Alex Patchedjiev **Department**: Computer Science **Project Title**: Roman Street Shrine Database and Querying Interface **Faculty Advisor**: Vincent Oria **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Tsewang Sherpa **Department**: Department of Informatics, and Computer Science **Project Title**: VROOM Management System **Faculty Advisor**: Dr. James Geller and Dr. Margarita Vinnikov **URI Program:** McNair Scholar Program

Research Presentation Area

Material Science and Engineering

Name: Amina Anowara **Department**: Chemical and Materials Engineering **Project Title**: Porous Hydrogels as A Transducer Material in Microfluidic Electrochemical Cells **Faculty Advisor**: Dr. Sagnik Basuray **URI Program: NSF** Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Matthew Fleishman **Department**: Civil Engineering **Project Title**: Smartphone Application for Warning Vulnerable Road Users (Bicyclists) of Vehicles in Blind Spots **Faculty Advisor**: Branislav Dimitrijevic **URI Program:** URI Provost Summer Research Fellowship Program
Name: Shayna Gentiluomo **Department**: Otto H. York Department of Chemical & Materials Engineering **Project Title**: Chemical Vapor Deposition as a Method of Synthesis for Titanium-carbide MXenes **Faculty Advisor**: Dr. Mengqiang (Mark) Zhao **URI Program:** Bergen Community College (BCC) - Chemical and Materials Engineering Dept Collaboration	**Name**: Rohan Ghosh **Department**: Electrical and Computer Engineering **Project Title**: Optical Properties of PbS and PbS/CdS Core-Shell Semiconductor Quantum Dots **Faculty Advisor**: Dr. Leonid Tsybeskov **URI Program:** Heritage Institute of Technology (HIT) Summer Research
Name: Geordy Jomon **Department**: Department of Chemical and Materials Engineering **Project Title**: Computational Models for Liquid Gallium **Faculty Advisor**: Gennady Gor **URI Program**: Bergen Community College (BCC) - Chemical and Materials Engineering Dept Collaboration	**Name**: Ayush Kashyap **Department**: Electrical and Computer Engineering **Project Title**: Simulation and Characterization of Oxide Based RRAMs **Faculty Advisor**: Hieu P. Nguyen **URI Program**: Heritage Institute of Technology (HIT) Summer Research
Name: Jeongtae Kim **Department**: Department of Biomedical Engineering, **Project Title**: Cell-Laden Composite Hydrogel Bioinks With Human Bone Allograft Particles to Enhance Stem Cell Osteogenesis **Faculty Advisor**: Murat Guvendiren **URI Program**: Bergen Community College (BCC) – Chemical and Materials Engineering Dept Collaboration	**Name:** Sebastian Mattio-Smith **Department:** Chemical and Materials Engineering **Project Title:** Stabilization of Lithium-Silicon Battery for Energy Storage **Faculty Advisor:** Mengqiang Zhao **URI Program:** Bergen Community College (BCC) – Chemical and Materials Engineering Dept Collaboration
Name: Melissa Mello **Department:** Otto H. York Department of Chemical and Materials Engineering **Project Title:** Designing Metal Fuels for Custom Thermite Compositions **Faculty Advisor:** Kerri-Lee Chintersingh **URI Program:** URI Provost Summer Research Fellowship Program	**Name:** Pia Piazzi **Department:** Chemical & Materials Engineering **Project Title:** Complete Rheological Characterization of Concentrated Emulsions **Faculty Advisor:** Dr. David Venerus **URI Program:** URI Provost Summer Research Fellowship Program
Name: Maryom Rahman **Department**: Chemical and Materials Engineering **Project Title**: Manufacturing a State-of the-Art Selector Valve for a Miniature Peptide Synthesizer **Faculty Advisor**: Sagnik Basuray **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Cancer Diagnosis and Therapeutic Intervention	**Name**: Marina Sefen **Department**: Chemical & Material Engineering **Project Title**: Novel MXene-Based Electrified Surface Coatings for Antiviral Air Filtration **Faculty Advisor**: Mengqiang (Mark) Zhao **URI Program:** McNair Scholar Program

Name: Ana Sierra-Maldonado **Department**: Otto H. York Department of Chemical and Materials Engineering **Project Title**: Fabrication Of 2D Tmds Based FET Sensors for The Detection of Per- And Polyfluoroalkyl Substances **Faculty Advisor**: Mengqiang Zhao **URI Program:** Bergen Community College (BCC) - Chemical and Materials Engineering Dept Collaboration	**Name**: Matthew Stickles **Department**: Department of Chemical and Materials Engineering **Project Title**: Molecular Dynamics Simulations of Chemical Warfare Agent Surrogate Mixtures **Faculty Advisor**: Dr. Gennady Gor **URI Program:** URI Provost Summer Research Fellowship Program
Name: Manuel Tabares **Department**: Physics Department **Project Title**: Contact Angle Measurement **Faculty Advisor**: Professor S. Chung **URI Program:** Bergen Community College (BCC) - Chemical and Materials Engineering Dept Collaboration	**Name**: Rajal Vyas **Department**: Electrical and Computer Engineering Technology **Project Title**: Machine Learning Algorithm to Detect Skin Cancer Boundary **Faculty Advisor**: Dr. Xuan Liu **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Optics and Photonics: Technologies, Systems, and Devices
Name: Idalia Warren **Department**: Department of Chemical and Materials Engineering **Project Title**: Viscosity and surface tension measurements of chemical warfare agent surrogates using acoustic levitation **Faculty Advisor**: Edward Dreizin **URI Program:** McNair Scholar Program	**Name**: Ritvik Bordoloi **Department**: Electrical and Computer Engineering **Project Title**: Characterization of Rram Devices for Neuromorphic Computations **Faculty Advisor**: Prof. (Dr) Durgamadhab Misra **URI Program:** Heritage Institute of Technology (HIT) Summer Research
Name: Sahil Molla **Department**: Mechanical and Industrial Engineering **Project Title**: On-Chip Blood Plasma Self-Separation for Point-of-Care (POC) Devices **Faculty Advisor**: Prof. Eon Soo Lee **URI Program:** Heritage Institute of Technology (HIT) Summer Research	**Name**: Shriyans Roy **Department**: Electrical and Computer Engineering **Project Title**: Design and Evaluation of High-performance and Energy-efficient Processing in MRAM Accelerators **Faculty Advisor**: Dr. Shaahin Angizi **URI Program:** Heritage Institute of Technology (HIT) Summer Research

Research Presentation Area

Robotics and Machine Intelligence

Name: Poulami Basu **Department**: Department of Electrical and Computer Engineering **Project Title**: Traffic Forecasting with Vehicle-Centric Data and Advanced GNN-LSTM Models **Faculty Advisor**: Prof Dr. Abdallah Khreishah **URI Program**: Heritage Institute of Technology (HIT) Summer Research	**Name**: Rituja Bhattacharya **Department**: Electrical and Computer Engineering **Project Title**: Trajectory Clustering Analysis for Modelling Human Hand Motion Skills in Robotics **Faculty Advisor**: Dr. Cong Wang **URI Program:** Heritage Institute of Technology (HIT) Summer Research
Name: Sagnik Chowdhury **Department**: Department of Humanities and Social Sciences **Project Title**: The Effect of Deep Fakes on College Students' Political Opinions **Faculty Advisor**: Dr. John Wolf **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Salma Ghazi **Department**: Department of Mechanical & Industrial Engineering **Project Title**: Real-Time Temperature Profile Forecasting in Metal Additive Manufacturing **Faculty Advisor**: Bo Shen **URI Program:** Honors Summer Research Institute (HSRI)

Name: Ari Kamat **Department**: Albert Dorman Honors College **Project Title**: Simulating Patient Behavior with Machine Learning Algorithms: The Case of an Ottoman Mental Institution **Faculty Advisor**: Burcak Ozludil **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Yousuf Kanan **Department**: Electrical Engineering and Computer Engineering **Project Title**: Enhancing Graph Features for Improved Roadway Speed Prediction Using GNN and LSTM with Vehicle-Connected Data **Faculty Advisor**: Mahmoud Nazal **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Optics and Photonics: Technologies, Systems, and Devices
Name: Jeremy Kurian **Department**: Albert Dorman Honors College **Project Title**: Simulating Patient Behavior with Machine Learning Algorithms: The Case of an Ottoman Mental Institution **Faculty Advisor**: Burcak Ozludil Altin **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Vignesh Nethrapalli **Department**: Department of Informatics **Project Title**: Improving Caption Data Diversity via Mood-Amplification for Audio-Language Tasks **Faculty Advisor**: Mark Cartwright **URI Program:** Honors Summer Research Institute (HSRI
Name: Sohom Sen **Department**: Electronics and Computer Engineering **Project Title**: Live SMPLX Model Control and Its Applications **Faculty Advisor**: Dr. Tao Han **URI Program:** Heritage Institute of Technology (HIT) Summer Research	**Name**: Dylan Ton-That **Department**: Department of Mechanical and Industrial Engineering **Project Title**: Real-Time Temperature Profile Forecasting in Metal Additive Manufacturing **Faculty Advisor**: Dr. Bo Shen **URI Program:** Honors Summer Research Institute (HSRI)
Name: Roberto Torres **Department**: Mechanical and Industrial Engineering Department **Project Title**: Wall-Climbing Robotic System for Light and Shadow-Base Interactions **Faculty Advisor**: Dr. Petras Swissler **URI Program:** URI Provost Summer Research Fellowship Program	

Research Presentation Area

Environment and Sustainability

Name: Omar Al-Zaman **Department**: Chemistry & Environmental Science **Project Title**: Synthesis and Characterization of Ruthenium Based Photosensitizer Compounds **Faculty Advisor**: Dr. Michael Eberhart **URI Program:** Honors Summer Research Institute (HSRI)	**Name**: Colin Arcaro **Department**: Department of Physics **Project Title**: Understanding the Impact of Solar, Magnetospheric, and Terrestrial Weather on the Ionosphere **Faculty Advisor**: Lindsay Goowin **URI Program:** URI Provost Summer Research Fellowship Program
Name: Rafiatou Bikienga **Department**: Chemistry and Environmental science **Project Title**: Role of Granulosa Cells in phthalates toxicity **Faculty Advisor**: Dr. Genoa Warner **URI Program:** NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus	**Name**: Melisa Bilgili **Department**: Chemical and Materials Engineering **Project Title**: Computational Analysis of N8 Stabilized Isolated Single Metal Atom Catalysts for Electrochemical Reduction of CO2 **Faculty Advisor**: Joshua Young **URI Program:** URI Provost Summer Research Fellowship Program

2023 Undergraduate Summer Research Symposium

Name: Leah-Marie Boake **Department**: School of Art and Design **Project Title**: Space-Time-Studio: Interdisciplinary Collaboration in Studio Between Designers and Engineers **Faculty Advisor**: Gabrielle Esperdy **URI Program:** URI Provost Summer Research Fellowship Program	**Name**: Robert Bush **Department**: Physics **Project Title**: Sunquakes and Extreme Ultraviolet (EUV) waves **Faculty Advisor**: John T Stefan **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences
Name: XingZhi (Gigi) Chen **Department:** Chemistry and Environmental Studies **Project Title**: Investigation of Electrochemical Degradation of PFOA Using High Surface Area Electrodes **Faculty Advisor:** Hao Chen **URI Program:** NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus	**Name**: Austin Dalton **Department**: Physics Department, Center for Solar- Terrestrial Research, Institute for Space Weather Science **Project Title**: Analysis of Environmental Dependance of the HODI Instrument Calibrations **Faculty Advisor**: Hyomin Kim **URI Program:** URI Provost Summer Research Fellowship Program
Name: Annalyse Dickinson **Department**: Physics **Project Title**: Investigation of the Relationship Between Mini-Filament Eruptions, Small-Scale Magnetic Flux Ropes, and Coronal Ejections, and Their Distribution in Relation to Coronal Holes **Faculty Advisor**: Haimin Wang **URI Program:** NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences	**Name**: Nikita Dubinin **Department**: Martin Tuchman School of Management **Project Title**: Blockchain Technology and its Applications in Plastic Recycling Industry Supply Chain **Faculty Advisor**: Junmin (Jim) Shi **URI Program:** URI Provost Summer Research Fellowship Program
Name: Joel Duzha **Department**: Chemistry and Environmental Science **Project Title**: Reversible Adsorption of Atmospheric Oxidized Mercury for Its Quantitative Chemically-Resolved Analysis **Faculty Advisor**: Dr. Alexei Khalizov **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus	**Name**: Sabastian Fernandes **Department**: Department of Physics; Center for Solar-Terrestrial Physics **Project Title**: Doppler Residuals on High Frequency Radio Signals **Faculty Advisor**: Gareth Perry **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences
Name: Joel Florim **Department**: Civil and Environmental Engineering **Project Title**: Monitoring Water Conductivity from Vehicle Splash and Spray to Optimize Road Salt Use **Faculty Advisor**: William Pennock **URI Program**: Honors Summer Research Institute (HSRI)	**Name**: Oluwanifemi Fuwa **Department**: Civil and Environmental Engineering **Project Title**: Algae Separation Using Recoverable Magnetic Particles **Faculty Advisor**: Dr Wen Zhang **URI Program**: Honors Summer Research Institute (HSRI)
Name: Saketh Golla **Department**: Albert Dorman Honors College **Project Title**: Studying the Effects of Cholera on the Mentally Ill in the Ottoman Empire **Faculty Advisor**: Dr. Ozludil **URI Program**: Honors Summer Research Institute (HSRI)	**Name**: Steven Habeb **Department**: Department of Chemistry and Environmental science **Project Title**: The Effect of Perfluorooctanesulfonic Acid (PFOS) on the Ovary **Faculty Advisor**: Dr. Genoa Warner **URI Program**: Honors Summer Research Institute (HSRI)

Name: Michelle Jojy **Department**: Department of Chemistry and Environmental Science **Project Title**: Effects of Nanoplastics on Gene Expression in the Placenta **Faculty Advisor**: Genoa Warner **URI Program**: Honors Summer Research Institute (HSRI)	**Name**: Nathaniel Kapleau **Department**: Physics Department **Project Title**: Magnetohydrodynamic Simulation of Coronal Magnetic Field Evolution and Eruption **Faculty Advisor**: Dr. Satoshi Inoue **URI Program**: URI Provost Summer Research Fellowship Program
Name: Rahul Laha **Department**: Department of Electrical and Computer Engineering **Project Title**: Renewable Energy Systems Monitoring using IoT-Sensing and Digital Twin Platform **Faculty Advisor**: Philip Pong **URI Program**: Heritage Institute of Technology (HIT) Summer Research	**Name**: Adam Leszczynski **Department**: Department of Chemistry and Environmental Science **Project Title**: Adsorption Behavior of PFAS to Microplastics **Faculty Advisor**: Dr. Mengyan Li **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus
Name: Emily Luo **Department**: Mechanical and Industrial Engineering **Project Title**: Predicting Solar Flare Indices from SHARP Parameter Dynamics using Convolutional Neural Networks **Faculty Advisor**: Bo Shen **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences	**Name**: Arman Manookian **Department**: Solar, Terrestrial, and Space Weather Sciences **Project Title**: Solar Prominences **Faculty Advisor**: Vasyl Yurchyshyn **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences
Name: Laila Nashir **Department**: Department of Chemistry and Environmental Science **Project Title**: Reactivity of Gaseous Mercuric Bromide with Solid and Liquid Interfaces **Faculty Advisor**: Dr. Alexei Khalizov **URI Program**: McNair Scholar Program	**Name**: Huu Minh Triet Nguyen **Department**: Department of Physics **Project Title**: Magnetohydrodynamic Simulation of Solar Magnetic Field Eruptions Triggered by Small Emerging Flux **Faculty Advisor**: Inoue Satoshi **URI Program**: URI Provost Summer Research Fellowship Program
Name: Naya Pared **Department**: Physics Department **Project Title**: Trigger Mechanisms for Solar Flares **Faculty Advisor**: Jeongwoo Lee **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences	**Name**: Jaiman Parekh **Department**: Mathematical Sciences **Project Title**: Nonlinear water waves: Theory & Experiment **Faculty Advisor**: Wooyoung Choi **URI Program**: URI Provost Summer Research Fellowship Program
Name: Varsha Rao Rayasam **Department**: Civil and Environmental Engineering **Project Title**: Nanobubbles-Enabled Foam Fractionation for Efficient Algal Removal **Faculty Advisor**: Dr. Wen Zhang **URI Program:** URI Provost Summer Research Fellowship Program	**Name**: Isaiah Rejouis **Department**: Biology **Project Title**: Studying Xylemic Parameters for Drought Simulations **Faculty Advisor**: Xiaonan Tai **URI Program**: URI Provost Summer Research Fellowship Program
Name: Hannah Shahinian **Department**: Department of Chemistry and Environmental Science **Project Title**: Mercury Sorption in Propanotrophs **Faculty Advisor**: Dr. Lijie Zhang **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus	**Name:** Simona Sotiri **Department**: Computer Science **Project Title**: Exploring Solar Flares with the SolarDB Cyberinrfastructure **Faculty Advisor**: Jason Wang **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences

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Name: Luke Thomas **Department**: Institute for Space Weather Sciences **Project Title**: Tracing Energetic Electrons in the Solar Corona **Faculty Advisor**: Sijie Yu **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences	**Name**: Carolyn Toledo **Department**: School of Art and Design **Project Title**: Developing an Interactive VR/AR Museum Experience to Contextualize Van Gogh's Artwork **Faculty Advisor**: Dr Hyejin Hannah Kum-Biocca **URI Program**: URI Provost Summer Research Fellowship Program
Name: Mallory Wickline **Department**: Physics Department **Project Title**: "Jets" on the Sun: Joint Radio and Extreme Ultraviolet Observations **Faculty Advisor**: Dr. Bin Chen **URI Program**: NSF Research Experience of Undergraduate (REU) Program for Solar, Terrestrial, and Space Weather Sciences	**Name:** Kathryn Wulf **Department**: Department of Chemistry and Environmental Science **Project Title**: Uncovering the Function of Group-6 Propane Monooxygenases in Mycobacterium sp. DT1 **Faculty Advisor**: Dr. Mengyan Li **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus
Name: Quentin Young **Department**: Chemistry and Environmental Sciences **Project Title**: RuPd Bimetallic Nanoparticle Catalyst for Electrochemical Degradation of 1,4-dioxane **Faculty Advisor**: Omowunmi Sadik **URI Program**: NSF Research Experience of Undergraduate (REU) Program for BioSensor Materials for Advanced Research and Technology (BIOSMART) at the Environment/Biotechnology Nexus