

2024 RESEARCH & CREATIVE ACHIEVEMENT WEEK AWARDS

ECU Research and Creative Achievement Week provides students with an excellent opportunity to practice their presentation skills and meet other innovative scholars at ECU with similar interests.

East Carolina University undergraduate, graduate, and postdoctoral scholars are invited to present their research to fellow students, scholars, colleagues, faculty, and the local community in a professional, conference-style setting. We define research as an original systematic investigation and/or original creative activity designed to develop or contribute to general knowledge or culture.

Students and scholars may present their research in any one of the following categories.

Biomedical Sciences
Business
Community Engagement
Education
Engineering, Technology, & Computer Science
Fine Arts, Visual Art, and Design
Human Health
Humanities
Interdisciplinary Innovation
Natural Sciences
Social Sciences

GRADUATE STUDENT AWARDS

Podium Presentation Awards

Biomedical Sciences & Human Health

Lauren Jung

Mentor: Dr. Elizabeth Ables

“Ecdysone signaling in the *Drosophila* germline regulates a stem cell transcriptional program”

Education & Social Sciences

Daniel Stickel

Mentor: Dr. Jeannie Golden

“Adverse Childhood Experiences, Risk Taking, and Protective Factors”

Engineering, Technology, and Computer Sciences

Colby Sawyer

Mentor: Dr. David Hart

“Evolving PITON: AI-Driven Simplification of IoT Data Access”

Fine Arts, Visual Arts, and Design

Katelyn Brewer

Mentor: Dr. Angela Wells

“Exploring Tourette Syndrome with Analog Photography”

Natural Sciences

Elnaz Pezeshki

Mentor: Dr. Stephen Moysey

“Using electrical resistivity tomography (ERT) to investigate the role of artificial channels on saltwater transport, Hyde County, NC”

GRADUATE STUDENT AWARDS

Poster Awards

Biomedical Sciences

Connor B. Cribb

Mentor: Dr. Roy Roop

“Investigating the role the polar autotransporter adhesin genes encoded by *Brucella* have on crossing mucosal barriers and virulence”

Education

Stephanie Wood

Mentor: Dr. Kristen Gregory

“Parents’ and Teachers’ Perceptions of the Effectiveness of Preschool in Terms of Mathematical Kindergarten Readiness”

Engineering, Technology, and Computer Science

Gabrielle Stein

Mentor: Dr. Nic Herndon

“The Perils of Generative Model Inbreeding: Evaluating the Consequences of Cross-Model Training in Large Language Models”

Human Health

Ben Brisard

Mentor: Dr. Cameron Schmidt

“Unveiling Sperm Capacitation Dynamics:
A Novel Spectral Flow Cytometry and Stochastic Modeling Approach”

Social Sciences

Emilia N. Rose

Mentor: Dr. James E. Loudon

“Using stable carbon and nitrogen isotope values to estimate exposure to agricultural chemicals among green monkeys (*Chlorocebus sabaeus*) in St. Kitts”

Natural Sciences

Jahiem Hill

Mentor: Dr. Robert Hughes

“OptoProfilin: A Single Component Biosensor of Cellular Stress”

UNDERGRADUATE STUDENT AWARDS

Podium Presentation Awards

Biomedical Sciences

Nandini Vishwakarma

Mentors: Dr. Laxmansa Katwa and Dr. Srinivas Sriramula

“Discovering the Mysterious Effects of Intracardiac Dopamine Receptor Signaling”

Engineering, Technology, and Computer Sciences

Heath Faircloth

Mentor: Dr. Teresa Ryan

“Material Property Investigation of Common 3D Printer Filaments”

Multidisciplines

Jade McNeill

Mentor: Dr. Roshaunda Breeden

“Amplifying Our Voices: Exploring Black Women Student Leaders
Experiences at East Carolina University”

Natural Sciences

Victoria Gonzalez Mundarain

Mentor: Dr. Nathan Hudson

“Examining Human Fibrinogen's Molecular Structure Using Electron Microscopy”

Social Sciences

Cassidy Fitz-Randolph

Mentor: Dr. Scott Walfield

“Rape Myth Adherence Among University Students”

UNDERGRADUATE STUDENT AWARDS

Poster Awards

Biomedical Sciences

Lucas Boldt

Mentor: Dr. Li Yang

“MADCAM-1 and TNF- α Expression Reduced in GPR4 Knockout
Mice Given Immune Checkpoint Inhibitor Immunotherapy”

Education

Dhwani Hada

Co-Presenters: Kailee Ann Grubbs, Jameson Johnson Gerdts,
Aliah Mikelle Spencer, Stephanie Marie Stewart

Mentor: Dr. Yilei Huang

“Enhancing Electrical Systems Technology Education:
A Study on Virtual and Augmented Reality Integration in Community Colleges”

Engineering

Josey Wilson

Mentor: Dr. Daniel Perrucci

“Using the Critical Path Method (CPM) for Evaluating
Allocation Potential of Temporary Housing Unit Design”

Human Health

Daniel Walker

Co-Presenter: Amelia Tart

Mentor: Dr. Sinan Sousan

“The Effects of Commercial Grade E-Cigarette Chemical Ratios and Nicotine
Strength on the Gravimetric Filter Correction Factors and Real-Time Measurements”

Interdisciplinary Innovation

Joanna Mathew

Co-Presenter: Yanni Pavlikianidis

Mentor: Dr. William Godwin

“Innovation in Medical Education: Crafting a 3D Printed Female Pelvic Model”

Multidisciplines

Jack Meltsner

Mentor: Dr. Glenn Hubbard

“Eternal Light: Two Holocaust Survivors' Stories Of Perseverance”

Natural Sciences

Soham Patel

Mentor: Dr. Adam Offenbacher

“Kinetic Investigations of Solvent Effects on
Human Epithelial 15-Lipoxygenase-2 (15-LOX-2)”

Social Sciences

Katelynn Teli

Mentor: Dr. Aimee W. Smith

“Predictors of Cognitive Functioning in Infants Visiting
the NICU Follow-Up Clinic”

CAPTURE 180 RESEARCH CHALLENGE

Grand Finalist

Rachana Charla

Mentor: Dr. Kristen Myers

“Emotional Laboring Through Birth: Insights From Doula Volunteers”

People’s Choice Awards

Sophie Arruza

Mentor: Dr. Teresa Ryan

“Tracking Cloud Coverage in Matlab”

Madison Nay

Mentor: Dr. Jon Kirchoff

“Sustainable Transformation of Fast Fashion Supply Chains:
Challenges, Innovations, and Ethical Imperatives”