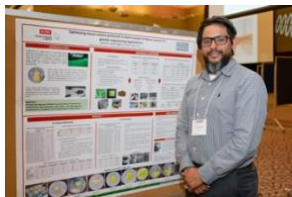
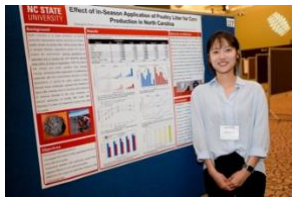
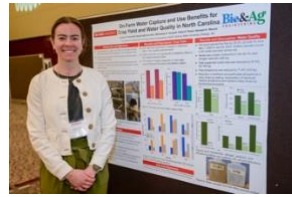






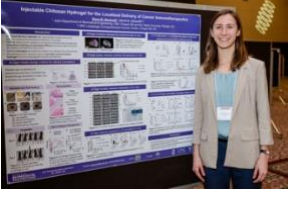

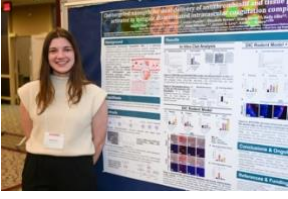
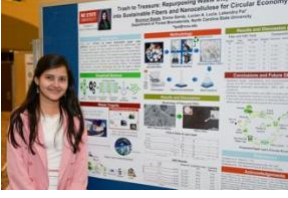

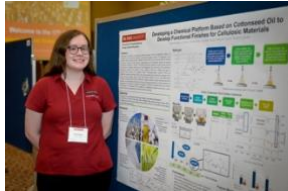
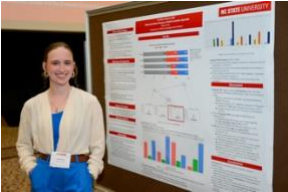


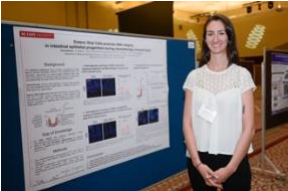
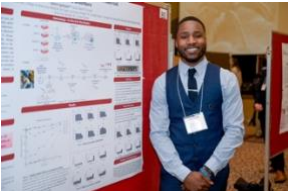


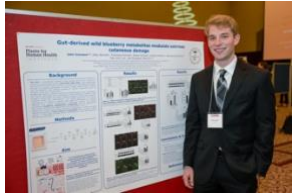
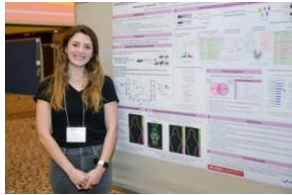
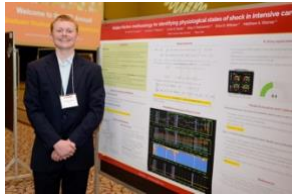
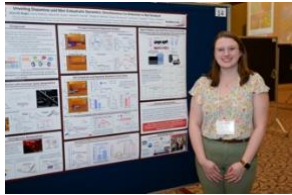



Seventeenth Annual Graduate Student Research Symposium

Congratulations to the winners of the Seventeenth Annual Graduate Student Research Symposium! Each year, the Symposium showcases the outstanding quality and diversity of graduate-level research at NC State. The Symposium was held on April 3, 2024 at the McKimmon Center. First-, second-, and third-place winners have been announced in nine categories.

AGRICULTURAL SCIENCES	
	<p>1st Place: Esdras Carbajal - Crop Science</p> <p>Optimizing Tissue Culture Protocols in Warm-Season Turfgrass Species for Genetic Engineering Applications</p>
	<p>2nd Place: Seongmin Park - Soil Science</p> <p>Effect of In-Season Application of Poultry Litter for Corn Production in North Carolina</p>
	<p>3rd Place: Laurie Pisciotta - Biological and Agricultural Engineering</p> <p>On-Farm Water Capture and Use Benefits for Crop Yield and Water Quality in North Carolina</p>
DESIGN	
	<p>1st Place: Paula León - Industrial Design</p> <p>SUPPORTING MENSTRUAL CUP USE: Improving the experience of cleaning menstrual cups in public settings</p>
	<p>2nd Place: Natalie Thibault - Industrial Design</p> <p>FROM BIO-LEATHER TO BABY STEPS: DESIGNING ENVIRONMENTALLY RESPONSIBLE AND DEVELOPMENTALLY APPROPRIATE TODDLER FOOTWEAR WITH BACTERIAL CELLULOSE</p>
	<p>3rd Place: Maren Parsell - Doctor of Design</p> <p>Design Innovation (DI) Integration</p>

EDUCATION	
	<p>1st Place: Amanda JF Hall - STEM Education</p> <p><u>MENTORING FOR REFORM-ORIENTED SCIENCE TEACHING: Insights from Experienced Mentors Before and After Implementing Educative Mentoring Concepts</u></p>
	<p>2nd Place: Tyler Harper-Gampp - Science Education</p> <p><u>What role and impact does Scale Words VR play on middle school students' scale cognition?</u></p>
	<p>3rd Place: Devan MacKenzie - Teacher Education and Learning Science</p> <p><u>"This is information our students need to know": Mathematics Teachers' Learning and Sensemaking of Culturally Sustaining Pedagogy Amongst Political Strife</u></p>
ENGINEERING	
	<p>1st Place: Siena Mantooth - Biomedical Engineering</p> <p><u>Injectable Chitosan Hydrogel for the Localized Delivery of Cancer Immunotherapeutics</u></p>
	<p>2nd Place: Vinson Williams - Aerospace Engineering</p> <p><u>Underwater Tethered Coaxial Turbines: Modelling, Analysis, and Testing</u></p>
	<p>3rd Place: Ana Sheridan - Biomedical Engineering</p> <p><u>Clot-targeted nanogels for dual-delivery of antithrombinIII and tissue plasminogen activator to mitigate disseminated intravascular coagulation complications</u></p>
ENVIRONMENTAL SCIENCES	
	<p>1st Place: Munmun Basak - Forest Biomaterials</p> <p><u>Trash to Treasure: Repurposing Waste Disposal Paper Cups into Sustainable Fibers and Nanocellulose for Circular Economy</u></p>

	<p>2nd Place: Kazi Md Yasin Arafat - Forest Biomaterials</p> <p>Tuning Microfibrillated Cellulose for High-Barrier Sustainable Packaging Films</p>
	<p>3rd Place: Taylor Kanipe - Forest Biomaterials</p> <p>Developing a Chemical Platform Based on Cottonseed Oil to Develop Functional Finishes for Cellulosic Materials</p>
<p>HUMANITIES</p>	
	<p>1st Place: Allyson Gee - World Languages and Cultures</p> <p>To Fill or Not to Fill? Filled and Silent Pauses in North Carolina Spanish</p>
	<p>2nd Place: Mandy Paige-Lovingood - Public History</p> <p>Exhibiting Turquerie: The Social Lives of Eighteenth-Century French Women's Portraits, (1742-2024)</p>
	<p>3rd Place: Rachel Suffern - History</p> <p>Fitzgerald's Folly: Comedy, Reality, and the Immigration Debate in The Great Gatsby</p>
<p>LIFE SCIENCES</p>	
	<p>1st Place: Chloe Mariant - Comparative Biomedical Sciences</p> <p>Enteric Glial Cells promote DNA integrity in intestinal epithelial progenitors during chemotherapy induced injury</p>
	<p>2nd Place: Glenn Jackson - Comparative Biomedical Sciences</p> <p>Exploiting the Mechanisms of the KIT Receptor in Mast Cell Proliferative Disorders</p>

	<p>3rd Place: John Ivarsson - Nutrition</p> <p>Gut-derived wild blueberry metabolites modulate extrinsic cutaneous damage</p>
<p>MATHEMATICAL AND PHYSICAL SCIENCES</p>	
	<p>1st Place: Melody Hancock - Bioinformatics</p> <p>Identifying molecular targets of CHD7 that mediate CHARGE syndrome phenotypes in a zebrafish model</p>
	<p>2nd Place: Emmett Kendall - Statistics</p> <p>Hidden Markov methodology for identifying physiological states of shock in intensive care units</p>
	<p>3rd Place: Jenna Berger - Chemistry</p> <p>Unveiling Dopamine and Met-Enkephalin Dynamics: Simultaneous Co-Detection in Rat Striatum</p>
<p>SOCIAL SCIENCES</p>	
	<p>1st Place: Daniela Trujillo-Hassan - Anthropology</p> <p>DIET, INEQUALITY, AND ECOLOGICAL CHANGE AT THE NUEVA ESPERANZA ARCHAEOLOGICAL SITE DURING THE LATE MUISCA PERIOD (11TH TO 17TH CENTURY)</p>
	<p>2nd Place: Christopher Boyer - Parks, Recreation and Tourism Management</p> <p>Perceptions of Division I College Student-Athletes on Mental Health Strategies and Support Being Offered by Their Universities</p>
	<p>3rd Place: Yinman Zhong - Public Administration</p> <p>What Makes a Difference: Factors Influencing Nonprofit Hospitals' Provisions of Community Benefits</p>