



**DIVISION OF RESEARCH,
ECONOMIC DEVELOPMENT
& ENGAGEMENT**

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FROM THE OFFICE OF THE **VICE CHANCELLOR**



At East Carolina University, we've made it a goal to increase our research output as part of our mission to become America's next great national university. Research, however, is not confined to a classroom or a lab. It requires our faculty, staff and students to work beyond our campus borders. An important aspect of the Division of Research, Economic Development and Engagement is community engagement, which involves mutually-beneficial,

reciprocal partnerships between ECU and its external partners. The collaborative work ECU does with our community partners allows us to undertake engaged research that truly addresses the issues that matter to us all.

ECU is answering the call to increase its community engagement and research through university programs. ECU's Office of Community Engagement and Research offers a variety of ways for faculty and students to get involved. The university's Engagement and Outreach Scholars Academy, which graduated its first scholars in 2009, provides professional development and project support for faculty and students who conduct community engaged research. Faculty apply and are selected by peers for this competitive program. Student scholars, both graduate and undergraduate, attend a student academy that prepares them to join faculty-led teams that eventually complete a research project with a community partner to solve a mutually-identified need. Past scholars have completed projects in the fields of energy and natural resources, education, health and wellness, arts and humanities, science and economic transformation. ECU's Public Service Fellows Program offers students a chance to work with community partners in a professional internship. Started in 2015 and funded by the State Employees Credit Union Foundation, the PSF provides students an opportunity to develop leadership, analytical, problem-solving, communication and project management skills by working on ventures that build rural capacity. At the same time students gain valuable work experience. Fellows have been placed with community partners including the Windsor-

Bertie Chamber of Commerce, the Pocosin Arts School of Fine Arts and AMEXCAN, among others. These programs are committed to not only solving problems, but working hand-in-hand with community partners.

Over the summer, ECU will expand its community engagement programs, beginning with its Community University Partners Academy. The academy will provide sessions to community partners on engaged research and leadership development, resulting in an outline for a research project that can be used to recruit faculty and students who want to engage with graduates of the academy. In the past, ECU's community partners have indicated that resources at the university can be difficult to access. The Community University Partners Academy offers partners a chance to understand more about university practices, policies and research process. Additionally, ECU launches its Horizon Living Learning Community this fall. The Horizon LLC will provide a cohort of students an opportunity to focus on courses that provide expertise in money management, entrepreneurship and business planning, eventually leading to the launch of new micro-businesses in eastern North Carolina. These micro-businesses will address the needs of our region. The model has seen success at other universities including Stanford University, the University of Chicago, New York University and the University of California-Berkeley. What sets ECU apart from these programs is the integral way that communities will work with students throughout the program.

ECU has a special relationship with those that call eastern North Carolina home. Our research efforts should reflect the issues our community partners face. Read on to learn more about the engaged research being conducted by faculty members at ECU. I welcome anyone that's interested in conducting engaged research to reach out to REDE and the Office of Community Engagement and Research for more information.

Jay



ECU RESEARCH



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COMMUNITY ENGAGEMENT PROJECTS



Local Business Gleaning Success

A local foodstuffs business is making big waves in Pitt County. Glean, the brainchild of four co-founders who formerly worked in fresh produce and agriculture, is putting the clean-living baking industry on notice. The company takes produce that's deemed "too ugly" for store shelves and turns it into usable baking powders, offering three flavors in sweet potato, pumpkin and beet. Glean co-founder Laura Hearn said her

company saw two needs – farmers losing money on quality, but unsellable produce and a desire by consumers for healthy products. Her company found a solution for both.

Glean's path intersected with ECU thanks to the efforts of Melani Duffrin, a professor in the Department of Nutrition Science. Through Glean's relationship with Duffrin, the company has created several partnerships, including the development of recipes using Glean's vegetable powder by nutrition science students; creating marketing and business materials by College of Business students; and Glean's participation in the ideation and commercialization I-Corps@ECU program. ECU assistant professor of marketing and supply chain management Christine Kowalczyk said her department's relationship with Glean has been rewarding. "Glean's products align with our students' goal of working with a sustainable company that gives back to the community," she said. "Our students working with Glean have the opportunity to see product development first hand and are actually participating in the process a product goes through on its way to the marketplace."

Hearn believes that Glean still has work to do, but so far, the alliance developed by this community partner and ECU has been "certified fresh." "It has been mutually beneficial," Hearn said. "The students, faculty and staff at ECU are really a part of our company and they're helping us build this brand. We've been able to help one another out and provide insights that wouldn't have been possible without this collaboration."



Moore Recognized for Community Work

Sharon Rogers Moore, an associate professor in the Department of Health Education and Promotion, was recognized in February as the 2018 Scholarship of Engagement Award recipient. Moore, whose tenure spans 11 years at ECU, symbolizes the relationship ECU has with its local partners through community engagement.

In 2008, a Pitt County high school athlete died after sustaining injuries during football practice despite being cleared to play. His death served as a catalyst for the school system to overhaul its athletic training program. Under Moore's direction, Pitt County Schools put in place an athletic training program in partnership with ECU. Moore developed an extensive operations manual for Pitt County Schools' athletic programs built on evidence-based policies and procedures. These efforts helped Pitt County high schools earn national recognition as Safe Sports Schools, becoming the first system in North Carolina with this distinction. The state was recognized as the safest

for high school athletes to play in by the Korey Stringer Institute in 2017. Moore's work is reflective of engaged scholarship and through her research she is making an impact not only in the Pitt County community, but in the communities that serve as the homes for future scholars molded by her policies, practices and procedures.

COMMUNITY ENGAGEMENT PROJECTS



Evaluating Law Enforcement Programs

Assistant professor of criminal justice Heidi Stone Bonner is in her third year of evaluating the Lethality Assessment Program conducted by the Pitt County Sheriff's Office. The program is designed to prevent domestic violence homicides and serious injuries by allowing law enforcement and community professionals, including health care providers, to identify domestic violence victims and connect them to community-based domestic violence service programs. Bonner's work has led to two grant proposals and spin-off projects. Bonner is using the tools she's learned as a member of the Engagement and Outreach Scholar's Academy to serve the community and the country through this national program.



MATCH Wellness Partners with SECU Foundation

Associate professor Suzanne Lazorick and Tim Hardison, leaders of ECU's MATCH Wellness program, are partnering with the State Employees Credit Union Foundation to expand the program to new locations. MATCH Wellness is a childhood obesity intervention program aimed to prevent obesity and promote wellness in seventh graders. MATCH Wellness secured a grant worth \$200,000 from the foundation to recruit new schools. Thanks to this new partnership, MATCH Wellness will be offered at schools in Yancey and Mitchell counties, bringing the total number of schools participating in the program this fall to 55.



Scholar Releasing New Book

Professor Rebecca Dumlao has a soon-to-be-published book in the works. *A Guide to Collaborative Communication for Service-Learning and Community Engagement Partners* addresses the "hows" of communication processes and practices that can lead to building and maintaining successful campus-community partnerships. A 2009 graduate of the Engagement and Outreach Scholar's Academy, Dumlao provides real-life profile stories of successful community partnerships along with examples, charts, activities and resources to develop communication capacities for on-campus and community partners working together on community-engaged teaching and scholarship.

COMMUNITY ENGAGEMENT MINI PROJECTS



Assistant Professor's Work Published

Assistant professor of English Mark Johnson recently had his study published in the interdisciplinary journal of English language teaching and research, *Dialogues*. Johnson's publication "Teacher decisions in selecting vocabulary for instruction to English language learners" asked teachers to read sample texts to English language learners while selecting vocabulary that they might focus on when working with these learners in the classroom. The study showed that there are differences in vocabulary selection criteria among teacher experience level, presenting a need for integrated vocabulary instruction across subject areas with vocabulary lists chosen through collaboration between mainstream teachers and English language teaching specialists.



Students Introduced to Stress Management

Assistant professor Matthew Fish, a 2015 graduate of the Engagement and Outreach Scholars Academy, has focused his engaged research on stress and its effects on well-being. Fish initiated an international collaboration between ECU, Pitt County Schools and Ireland's The Pip – a stress management biofeedback company. With assistance from undergraduate and graduate students, Fish implemented a stress management program for students at Farmville Middle School with a behavior intervention plan. Students used The Pip, a small biofeedback device that measures students electrodermal activity with three companion apps. The Pip detects attention and relaxation, which influences gameplay in its companion apps. Fish's partnership has led to two peer-reviewed publications, student exposure and support for current grant submissions.

COMMUNITY ENGAGEMENT ANNOUNCEMENTS

Public Service Fellows Placements

The Public Service Fellows Program at ECU was founded in 2015 and is funded by the State Employees Credit Union Foundation. Each year, undergraduate students are placed with community partners and complete projects that address community-identified problems and priorities. Twenty-two students were selected for the PSF program in 2018, serving 21 community partners. Take a look at this year's interns and community partners:

Davis Basden, Hope Restorations	Tristen Newell, Town of Windsor
Jennifer Basil, AMEXCAN	Raquel Nicholson, Boys and Girls Club
Charlie Carcich, Rebuilding Together	Celestial Pigart-Coleman, North Carolina Aquarium at Roanoke Island
Kristen Carita, Green County	Angelica Reed, Sylvan Heights
Liz Garrett, Pocosin Arts and Marketing	Nathan Row, Tyrrell County Water & Soil
Shamin Jamadar, ACES	Jessica Schulte, Council on Aging
Simone Johnson, Kinston Arts Council	Emily Scott, North Carolina Aquarium at Fort Fisher
Cassie Meyer, City of Greenville	William Stanton, Uptown Greenville
Jayln Mills, Pitt County Health Department	Madeline Tripp, North Carolina Coastal Federation
Allen Mills, Sylvan Heights	Hannah Tripp, Pirates Cove Billfish
Aleix Murphy, Pocosin Arts Fab Lab	Tyler Whitley, Arts of Pamlico

Engagement and Outreach Scholars Academy Scholars

The Engagement and Outreach Scholars Academy provides professional development and project support for faculty and students who conduct community-engaged research. Past scholars have completed projects in the fields of energy and natural resources, education, health and wellness, arts and humanities, science and economic transformation. This year's EOSA class includes:

Leigh Atherton	Lester Zeager
Heidi Bonner	Mark Moss
Jennie Ann Cole	Meghan Millea
Katie Ford	Ruby Yeh

ECU Teams with Community Partners

This summer the Office of Community Engagement and Research and the Center for Leadership and Civic Engagement are teaming up with community partners. ECU launches its Community University Partners Academy on May 16. Sharon Rogers Moore will lead this new endeavor along with Dennis McCunney. The academy includes four workshops that provide sessions on community engaged research, leadership development and engaged project creation between ECU faculty, students and community members. The Community University Partners Academy will provide community partners information about university-based resources; assist community partners in learning new skills for data-driven decision making; and generate projects that connect student learning and faculty to real-world problems. For more information on the academy, contact the Office of Community Engagement and Research at communityengagement@ecu.edu.

STUDENT AND FACULTY PUBLICATIONS



The Journal of the American Medical Association

The Brody School of Medicine's Helen M. Johnson and Jan H. Wong were published in February's edition of the *Journal of the American Medical Association*. Their article "When is a little breast tissue too much? Nipple-sparing risk-reducing mastectomy in BRCA carriers" discusses the benefits of risk-reducing surgery extended to patients with known BRCA gene mutations – mutations of tumor suppressing genes that lead to a higher rate of breast and ovarian cancer – who have undergone nipple-sparing mastectomies. While past studies recommended that a total mastectomy was required to protect breast tissue, including the nipple-areolar complex, this new treatment option shows promise to reduce cancer events for BRCA carriers while sparing the nipple.



Toxicological Sciences

A group of researchers, led by ECU postdoctoral scholar Brita Kilburg-Basnyat with mentor Kym Gowdy, were published in Oxford Academic's *Toxicological Sciences*. Their article "Specialized Pro-Resolving Lipid Mediators Regulate Ozone-Induced Pulmonary and Systemic Inflammation" hypothesizes that ozone exposure induces pulmonary inflation, leading to a reduction in pro-resolving lipid mediators that facilitate the resolution of inflammation which regulate the lung's immune response during infection and allergic reactions. The study suggests that ozone exposure contributes to pulmonary inflammation by altering lipid metabolism, leading to an increased risk of cardiopulmonary complications, including decreased lung function, acute lung injury and exacerbation of preexisting heart and lung diseases.

The American Journal of
PATHOLOGY

American Journal of Pathology

An ECU team, led by Brody School of Medicine student Cameron A. Schmidt and mentored by Joseph McClung, saw its article "Strain-Dependent Variation in Acute Ischemic Muscle Injury" published in the May edition of the *American Journal of Pathology*. The article compares the hind limb muscle response after six hours of ischemia – restricted blood flow – in two mouse strains that differ in their postischemic extended recovery. The study found that muscles from both strains were functionally impaired after hind limb ischemia, but greater muscle death and loss of dystrophin-positive immunostaining were observed in BALB/cJ muscle compared with C57BL/6J muscle. The findings may have implications for future development of therapeutic interventions for limb ischemia.

GRANTS AND FELLOWSHIPS



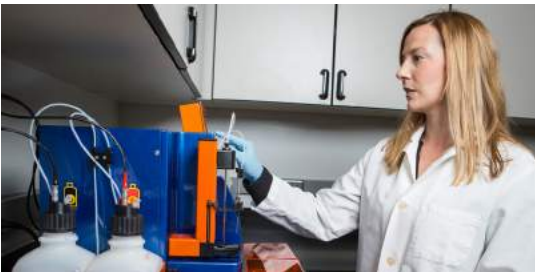
Jacobs Receives Guggenheim Fellowship

In a first for ECU, School of Music Composition and Theory professor Edward Jacobs received a prestigious Guggenheim Foundation Fellowship. The fellowship will support the completion of several commissioned works of original music. Guggenheim Fellowships are awarded to individuals who have demonstrated an exceptional capacity for productive scholarship or exceptional creative ability in the arts.



Department of Defense Project

Professor of anthropology David Griffith and a team of researchers from the University of Florida and Columbia University have received funding for a Department of Defense project from the Multidisciplinary University Research Initiative. The five-year project intends to create a modeling platform that is capable of assessing and predicting relationships between environmental changes and human population movements across different geographical scales, including both short-term (refugees) and long-term migration patterns. ECU and Griffith, a primary investigator for the project, received nearly \$383,000 in funding for their role in the proposal.



National Institute of Environmental Health Sciences Grant Received

Assistant professor of pharmacology Kym Gowdy received a score of 1.1 and was ranked in the 1st percentile for her NIH grant proposal “Novel role for CD163 in ozone induced alterations of pulmonary immunity.” The study focuses on studying CD163, a class B scavenger receptor, and defining the role it plays in mediating ozone-induced adverse health effects.

FUNDING OPPORTUNITIES

UNC Undergraduate Research Program Award

The University of North Carolina Undergraduate Research Program Award is accepting applications for the 2018–2019 fiscal year. This grant mechanism funds faculty development awards in support of undergraduate research within the UNC System to support and enhance undergraduate research. **Initial proposals are due at 5 p.m. on May 16.** Proposals must be submitted by the undergraduate coordinator of the lead institution. For more information, contact Mary Farwell at farwellm@ecu.edu.