BUS TOUR PARTICIPANTS

Oghale (Elijah) Asagbra | asagbrao16@ecu.edu

Health Services and Information Management
College of Allied Health Sciences

Dr. Asagbra's research focuses on health information technology (HIT) and the role patients and community health departments play in its implementation and utilization. Health information technology has been touted to be an important tool in promoting patient engagement. However, without proper adoption and use, the advantage provided by HIT for patient engagement may not be achieved. It is therefore important to understand which functionalities are germane for patient engagement. As such, Asagbra's research proposes to examine consumers' expectations, preferences and aversions, and factors that influence behavior change to stimulate active and consistent utilization. His work also explores county and community level support for the use of HIT for patient engagement.

Linda Bolin | bolinl@ecu.edu

Nursing Science
College of Nursing

Dr. Bolin's research examines the multifaceted variables for self-management in adults with resistant hypertension. The traditional triad management framework consists of medications, complimented with lifestyle modification (increasing physical activity), and decreasing dietary salt intake. Stress management is recommended, but there is limited research incorporating alternative or complementary approaches for stress management. Intervening with alternative therapies could improve symptomatology and quality of life for those with resistant hypertension. Bolin's work focuses on the addition of this fourth prong related to sympathetic dysfunction. She examines the use of heart rate variability biofeedback and baroreflex sensitivity affecting cardiac autonomic tone and blood pressure. Her goal is to provide interventions for this vulnerable population within the eastern portion of our state to ultimately decrease poor health outcomes in adults with resistant hypertension.

John Cavanagh | jcavana@ncsu.edu

Senior Vice President for Discovering Science
RTI International

Dr. Cavanagh's research has led to the development of therapeutics that overcome bacterial resistance. Practically all antibiotics these days are ineffective because bacteria have figured out how to overcome this resistance. Cavanagh's lab has discovered how bacteria do this and has developed compounds to stop them. This means that when the lab's compounds are used in conjunction with conventional antibiotics, those antibiotics work again like they are new. Cavanagh believes that patients can tackle all bacterial infections with these new compounds. Cavanagh will become the chair of the Department of Biochemistry and Molecular Biology in the Brody School of Medicine on April 1, 2019.

Leslie Cofie | cofiel18@ecu.edu

Health Education and Promotion
College of Health and Human Performance

Dr. Cofie's research focuses on cancer health disparities among racial/ethnic minority immigrants living in the U.S. His primary objective is to understand differences in sociocultural and contextual factors associated with cancer preventive behaviors between U.S.-born and foreign-born individuals. Specifically, he examines differences related to breast, cervical, and colorectal cancers between the two groups. Cofie's work includes the use of a mixed methods approach and network analysis to examine how social network characteristics uniquely impact cancer risk and prevention among foreign-born populations. The long-term goal of his work is to develop interventions that would contribute to eliminating the burden of cancers that disproportionately affect foreign-born populations.

Alethia Cook | cooka@ecu.edu

Political Science
Thomas Harriot College of Arts and Sciences

Dr. Cook's research interests focus on complex problems and the challenges they pose to governments, with a recent focus on emergency management, pandemic disease, weapons of mass destruction, and preventing the radicalization of immigrant populations. As the Department of Political Science chair, Cook believes the bus tour's impact will allow her to aid her department's faculty who study relevant issues including rural public health, sustainability, agriculture and food, and local government administration. As a transplant to ECU, she says the trip will dramatically increase her knowledge and understanding of eastern North Carolina and the unique opportunities and challenges therein.

Skip Cummings | cummingsd@ecu.edu

Family Medicine and Center for Health Disparities
Brody School of Medicine

Dr. Cummings is a health disparities researcher investigating factors associated with successful prevention and treatment of Type 2 diabetes, hypertension, and stroke in community and rural primary care settings. He is the Director of Research in Family Medicine, the Research Core Co-Director at ECU's Health Disparities Center, and the Director of ECU's practice-based research network in rural eastern N.C. He has led clinical trials of diabetes interventions and has worked collaboratively with faculty at ECU, UNC-Chapel Hill, Wake Forest University, Cornell Medical Center, and the University of Alabama-Birmingham. His research career has been devoted to understanding the critical factors necessary to optimize the prevention and treatment of, and reduce racial disparities in, diabetes, hypertension, and stroke care, specifically in primary care and community settings. He is experienced in working with community-based staff, training learners and research staff, insuring intervention fidelity, and collecting data in rural practice locations.

Teal Darkenwald | darkenwaldt@ecu.edu

Theatre and Dance
College of Fine Arts and Communication

Ms. Darkenwald is an Associate Professor in ECU's School of Theatre and Dance where she teaches jazz, ballet and modern technique classes, dance composition, and dance science courses. Darkenwald is the founder of UltraBarre®, a barre-based somatic training certification program. She was a guest artist at Ballet Philippines, Visceral Dance Center, Radford University, the University at Buffalo, Glendale Community College, and Salve Regina University. Her dual research focus is in dance science and dances of the African diaspora. She conducts research out of the Innovation Design Lab and collaborates with Dr. Paul DeVita in the ECU Biomechanics Lab and Dr. Alex Durland in ECU Physical Therapy.

Kura Duba | dubak17@ecu.edu

Engineering
College of Engineering and Technology

Dr. Duba's primary research interest includes supercritical fluids-based process development, modeling and optimization for the valorization, separation, and purification of bio-based products, and byproducts from bio-botanical sources. The target applications of the new products Duba studies include foods, pharmaceuticals, cosmetics, nutraceuticals and/or synthesis of bio-based chemicals. He also studies conversion of residual biomass for the above-mentioned processes to bioenergy using hydrothermal processes and upgrade of biofuel through combined conventional and supercritical fluids techniques.

Kathleen Egan | eganka18@ecu.edu

Health Education and Promotion
College of Health and Human Performance

Dr. Egan's research consists of epidemiologic, observational, and intervention studies on multiple substances of abuse — nonmedical prescription drugs, illicit drugs, tobacco, and alcohol — among adolescents and young adults. She is particularly interested in the implementation and evaluation of community-based interventions and policies to prevent substance use problems in communities, especially among adolescents and young adults. While she is broadly interested in substance use, her independent research has focused on nonmedical prescription drug use as it is a serious public health issue in the U.S. Over the past several years, she has focused on examining the disposal of unused prescription medications as a prevention strategy. Ultimately, the goal of her research is to influence the implementation and sustainability of effective strategies to address substance abuse in communities.

Jessica Ellis | ellisje18@ecu.edu

Physiology and East Carolina Diabetes and Obesity Institute
Brody School of Medicine

Dr. Ellis' lab uses biochemical, metabolic flux, molecular biology, and genetically-manipulated mouse model approaches to understand the regulation and importance of cellular fatty acid metabolism. Her lab focuses on the enzymatic regulation of cellular lipid metabolism within the brain and how this metabolism influences neurological function and susceptibility to neurodegenerative diseases. Her research has a special emphasis on the neuroprotective omega-3 fatty acid, docosahexaenoic acid (DHA), and mitochondrial metabolism in the muscle in relation to cardiac hypertrophy, muscle function, energetic homeostasis, obesity, and diabetes. The lab has determined that muscle fatty acid oxidation is critical for maintaining cardiac and skeletal muscle structure, function, and physiological response to stress, such as diet-induced obesity and insulin resistance, and it continues to investigate the mechanisms therein.

Katherine Ford | fordk@ecu.edu

Foreign Languages and Literatures
Thomas Harriot College of Arts and Sciences

Dr. Ford's primary area of research is contemporary Spanish American theater and, in particular, its intersection with performance studies, feminist theory, and gender studies. Her third single-authored monograph, currently in process, examines the adaptations of plays to film in the Spanish-speaking world. Additionally, she is working on a research project that involves engaged research to increase access among young Latino students to higher education and scholarships. Ford's work in her home department and in the Honors College has helped her understand more fully ECU's three commitments and what role she can play in improving student success, serving the public by better connecting and preparing local students to excel at ECU, and transforming the region by increasing access to the university.

Stephanie George | georges@ecu.edu

Engineering
College of Engineering and Technology
Co-Director, Biomaterials Research Cluster

Dr. George's work addresses clinically relevant problems using cardiovascular mechanics, modeling, and imaging techniques to develop solutions that can be translated into clinical practice. Her research agenda has been crafted to promote increasing opportunity and improving health, with specific impact in the region ECU serves. Relevant clinical problems include pulmonary hypertension, heart failure, coronary artery bypass grafts, and lymphedema. In her lab, she applies engineering tools (imaging processing, computational modeling, device design) to address the above clinical issues. Embedded within this work are opportunities for undergraduate research and integration of research into teaching. She has run an NSF-funded REU site for five years, bringing 45 undergraduates to ECU to conduct research with the goal of broadening participation in STEM graduate programs and careers.

Amy Gross McMillan | grossmcmillana@ecu.edu

Physical Therapy
College of Allied Health Sciences

Dr. Gross McMillan's current research involves the effects of maternal exercise and physical activity during pregnancy on the neuromotor development of infants and young children and the potential long-term influence on development of obesity. In addition, she's interested in the effects early physical activity and movement play in the development of obesity during childhood and adolescence. As a department chair, she also represents the research interests and skills of her department's faculty.

Kate Taylor Harcourt | harcourtk14@ecu.edu

Human Development and Family Science
College of Health and Human Performance

Dr. Harcourt believes that children, youth, and families facing adversities and hardships also possess notable strengths that promote resiliency. She is highly motivated to help these families and individuals capitalize on their strengths while empowering them with the additional knowledge and skills necessary to improve their overall quality of life. As such, her research centers on using developmental and family science to advance our understanding of diverse youth and families, and to further the development of programs and practices that promote the well-being of diverse youth and families. Her research examines dynamics of underserved populations, particularly those who were previously incarcerated, and addresses the needs of these families through educational relationship interventions.

Michael Harris | harrismi@ecu.edu

Miller School of Entrepreneurship
College of Business

Dr. Harris' research has focused on entrepreneurial attitudes, intentions, and the business startup process. Focal areas have included measuring the attitudes of young adults and the strategic resources necessary for new venture launch. His previous studies have included samples from multiple universities throughout the U.S. and abroad, including emerging entrepreneurs in rural settings. His more recent research efforts have focused on entrepreneurial pedagogy and the development of comprehensive entrepreneurship programs and accompanying ecosystems. One of his particular research goals is to create a national model for rural entrepreneurship education.

Elizabeth Hodge | hodgee@ecu.edu

Interdisciplinary Professions
College of Education

Dr. Hodge's research is motivated by the use of innovative technological tools to ignite and transform learning. To date, she has produced an array of articles, chapters, and books on immersive education, e-learning, multi-user virtual environments, professional learning communities, and innovative instructional methods. Most of the research she conducts explores how a particular technology tool influences behavioral, environmental, or personal factors in which learning occurs. The primary purpose of her research is to strengthen the empirical and formal connections between educational equity and close the achievement gap among learners. She serves as the Assistant Dean for Innovations and Strategic Initiatives in the College of Education.

Patrick Horn | hornp18@ecu.edu

Biology
Thomas Harriot College of Arts and Sciences

Dr. Horn's research aims to understand the role of lipids, or plant-based oils, in plant growth and development in response to dynamic environmental conditions. His goal is to exploit this knowledge to engineer healthier plants for environmental and human health. His lab aims to understand how cells and organelles are built using these lipid building blocks, how these lipids are synthesized and metabolized, and how the amounts and types of lipids respond to environmental cues in model and N.C.-valuable crop species (e.g. soybean). As plant-based oils are essential for human health (e.g. omega-3 fatty acids) and serve as precursors for valuable bioproducts (e.g. biodiesel, cosmetics, lubricants, etc.), the lab aims to help engineer plants that produce these desired oils.

William (Bill) Irish | irishw17@ecu.edu

Surgery
Brody School of Medicine
Co-Director, Big Data and Analytics Research Cluster

Dr. Irish's major research interests consist of identification of important prognostic factors of disease and clinical outcomes and developing statistical models and assessing their clinical utility. Of interest is evaluating factors that can affect outcomes in individuals who live in rural areas. These individuals are, on average, older with a higher incidence of chronic illnesses such as obesity, diabetes, and heart disease than individuals living in urban areas. Rural residents have less exposure to heath care specialties and, as such, may not seek the necessary medical care or may have delays in treatment. All these factors can result in disparate outcomes among rural versus urban residents. The goal of his research is to design, implement, and evaluate an academic/community coordinated health system strategy to improve health outcomes in the rural community.

Mi Hwa Lee | leemih17@ecu.edu

Social Work
College of Health and Human Performance

Dr. Lee's research focuses on understanding the scope and nature of breast cancer screening disparities in ethnic minority women, as well as develop interventions to increase their screening. She seeks to understand the impact of social, cultural, and physical environment factors on breast cancer screening behavior in ethnic minority women, which will lead to the development of a culturally appropriate community-based intervention to promote breast cancer screenings. Her work represents an intersection of social work/nursing/public health approaches, community-based participatory research, quantitative/qualitative methodologies, and prevention science. The ultimate goal of her research is to inform the development and implementation of relevant public policies and practices for cancer screening behavior changes in ethnic minority women.

Alex Manda | mandaa@ecu.edu

Geological Sciences
Thomas Harriot College of Arts and Sciences
Co-Director, Natural Resources and the Environment Research Cluster

Dr. Manda is interested in exploring water resources (groundwater and surface water), issues (e.g., saltwater intrusion), and the drivers that influence water resources (natural and anthropogenic). He has used a combination of field-based and computer modeling techniques to tackle various research problems in the inner and outer banks regions of eastern North Carolina. He is also interested in improving undergraduate student education in the geosciences and citizen science.

Amy McMillan | mcmillana@ecu.edu

Management
College of Business

Dr. McMillan's research focuses on three main areas including diversity management, corporate social responsibility (CSR), and organizational culture/climate. At the core of her diversity management research is an emphasis on how to harness the strategic benefits of a diverse workforce while mitigating the potential negative effects. This has included examining leadership, strategy, and hiring practices in organizations. Her research into corporate social responsibility has focused on the impact of various CSR practices on stock price as well as differences in such practices between family and non-family firms. Finally, she has studied various types of organizational culture and climate in organizations in order to understand their interaction with variables such as leadership and diversity. Her goal has always been to find ways to help organizations engage in positive organizational behaviors while still remaining profitable.

Merwan Mehta | mehtam@ecu.edu

Technology Systems
College of Engineering and Technology

Dr. Mehta's present research interests are enhancing manufacturing and business processes through Lean principles and theory of constraints and the pursuit of quality and variation control through Six-sigma and design of experiments. Prior to joining academics in 2004, he recorded more than 20 years of experience in business and industry as an owner, vice president, manufacturing manager, project director, industrial engineer, machine tool design engineer, and manufacturing engineer. He has worked as a Lean Six-sigma process improvement consultant helping businesses become more profitable and productive since 2000. He has been an examiner for the Missouri Quality Award based on the Baldrige criteria for three seasons. Mehta conducts workshops in the above subject matter in the U.S. and internationally.

Stephen Moysey | moyseys18@ecu.edu

Geological Sciences and ECU Water Resources Center
Thomas Harriot College of Arts and Sciences

Dr. Moysey's research focuses on creating and transforming novel environmental data, particularly geophysical data, into information for understanding natural and human impacts on the water cycle. While the measurements that sensors provide are important for probing the environment, they don't have meaning until the data is put into a decision-making context using physical or statistical models to support water resources management. Moysey is an active researcher in the areas of STEM education and communication, particularly through the use of technologies – like virtual reality and mobile devices – to engage students and the public in science. He has worked on projects around the world, including the U.S., India, and the Caribbean.

Michelle Oyen | oyenm18@ecu.edu

Engineering
College of Engineering and Technology
Co-Director, Biomaterials Research Cluster

Dr. Oyen, who joined ECU as an Associate Professor in 2018, conducts research in the area of biomaterials and biomechanics. Her work can be described as using engineering tools and techniques to solve real-world problems in medicine and nature. Her main research areas include: 1) trying to rebuild broken body parts using "tissue engineering" to make tissues that can't heal themselves, such as new cartilage for people with arthritis; 2) making biomimetic (nature-imitating) materials to help reduce our human contributions to the global carbon footprint, including possible replacement of steel and concrete with lab-created bone or eggshell; and, 3) slightly more unconventionally, using experimental and computational engineering tools to understand problem pregnancies. Her goal is to make a "virtual placenta" to help develop interventions for premature birth.

David Paquette | paquetted15@ecu.edu

Surgical Sciences
School of Dental Medicine

Dr. Paquette's research examines the relationship between oral (periodontal disease) and systemic conditions like diabetes, cardiovascular disease, and obesity. He is also interested in investigating oral health disparities and novel interventions (preventive, therapeutic, and diagnostic) for periodontal disease. As a dental educator, he is focused on the scholarship of teaching and learning as related to student cultural competency, service, and active learning. He serves as chair, Assistant Dean for Academic Success, and Associate Dean for Research (Interim) in the School of Dental Medicine.

Lok Pokhrel | pokhrell18@ecu.edu

Public Health
Brody School of Medicine

Dr. Pokhrel's research is focused on sustainable development of nanotechnology-based products to solve imminent public health concerns including Zika virus disease, microbial resistance, water quality issues, cancer, and understanding environmental health and safety (nano-EHS) of engineered nanomaterials and nano-based products through toxicity and risk analysis.

Keith Richards | richardsk@ecu.edu

Communication
College of Fine Arts and Communication

Dr. Richard's research examines information seeking, decision making, and intentions related to health decisions. He is particularly interested in how the use of the Internet coupled with interpersonal communication influences health-related intentions and actions. His work in this area has covered a variety of topics such as diabetes, genital human papillomavirus vaccine (HPV), and implantable cardioverter defibrillators. He is currently building upon his HPV work to look at cervical cancer screening in those who are 21 years or older. He is a communication scholar that focuses on how communication and information play an important role in making health decisions. His goal is to provide information that could be utilized in campaigns that would lead to positive health decisions.

Alice Richman | richmana@ecu.edu

Health Education and Promotion
College of Health and Human Performance

Dr. Richman's training is in public health and social science research methods with content emphasis in cancer health disparities, specifically in the areas of access to preventive health services for HPV-related cancers and breast cancer for disadvantaged populations. Her research in cancer health disparities has been focused in two main areas including understanding cancer health disparities and developing and evaluating interventions to address those disparities. She routinely engages the community in research via coalition building, community-based participatory research, and in training and collaborating with community health workers to create sustainable change.

Kamran Sartipi | sartipik16@ecu.edu

Computer Science
College of Engineering and Technology

Dr. Sartipi's research activities are interdisciplinary, consisting of different aspects of an intelligent and secure infrastructure for mined-knowledge driven decision support systems through behavior pattern extraction, constraint clustering, artificial intelligence, complex pattern matching, and big data analytics. Currently, he is working on projects focused on intelligent cybersecurity which assists security administrators of distributed systems to identify malicious user behaviors; clinical decision support systems to assist physicians in underserved regions to access to medical knowledge of specialties; and intelligent homecare for elderly and acute patients to enhance patient care and reduce hospital readmissions. These projects are multi-disciplinary with collaborations among experts in computer science, electrical engineering, medicine, nursing, biostatistics, and behavior economics.

Aimee Smith | smithaim18@ecu.edu

Psychology
Thomas Harriot College of Arts and Sciences

Dr. Smith's research works to transform approaches to pediatric chronic illness, medication adherence, and health care transition using principles of health behavior change. Her work focuses on adolescents and young adults who are at greatest risk for poor adherence (the primary cause of treatment failure in chronic illnesses) due to developmental and neurobiological processes. She specializes in health care transition — the move from pediatric to adult providers — which further impairs adherence. Her interests include barriers to and facilitators of transition and adherence and she examines longitudinal trajectories of adherence to understand how barriers change over time, particularly during transition. Her ultimate goal is to improve health care practices and quality of life for youth with chronic illness during their most vulnerable and underserved stage.

Rebecca Snyder | rsnyder@ghs.org

Surgery
Brody School of Medicine

Dr. Snyder is a gastrointestinal surgical oncologist, with a clinical interest in colorectal, liver, and pancreatic cancers. Her research background is in health services research, specifically cancer care delivery. She is most interested in disparities in treatment delivery for colorectal cancer among rural and underserved populations. She has experience with large administrative datasets and focuses on leveraging data to inform addressing disparities in colorectal cancer treatment.

Sinan Sousan | sousans18@ecu.edu

Public Health
Brody School of Medicine

Dr. Sousan is researching occupational exposure to particulate matter, toxic gases, noise, and extreme temperatures that are associated with adverse health effects. Short- and long-term exposure risk is affected by various factors that require different prevention methods to decrease exposure. Workers are at a higher exposure risk, compared to environmental exposure, especially in indoor operations. His research focuses on low-cost direct reading sensors that provide high-temporal and spatial resolution. Low-cost sensors have become increasingly popular, where institutions and companies are providing sensors that are rigid, portable, and lightweight, including small form factor devices that can provide area or personal exposure. Tracking worker exposure will help Sousan identify exposure risk at any time and location, allowing him to implement engineering solutions that can be put in place to decrease these exposures.

Michael Stellefson | stellefsonm17@ecu.edu

Health Education and Promotion
College of Health and Human Performance

Dr. Stellefson's research focuses on developing and evaluating patient-centered technology to improve patient self-management in chronic disease, primarily for patients living with Chronic Obstructive Pulmonary Disease (COPD). His two main research goals aim to develop, deliver, and evaluate web-based educational tools for COPD self-management and measure and promote eHealth literacy among COPD patients and their caregivers. He assesses eHealth literacy and patient use of the Internet and social media for chronic disease self-management information and support. To conduct his research, Stellefson uses a combination of web-based interventions and surveys, technology usability testing procedures, multimedia content analyses, and qualitative interviews.

T. Robert Tempel | tempelt18@ecu.edu

Extramural Clinical Practices
School of Dental Medicine

Dr. Tempel's research interests are founded on the premise that achieving health is a team effort which can be greatly enhanced through community involvement. Rural North Carolina must attract quality health care providers who work collaboratively with each other and community leaders in order to develop sustainable systems for health. His interests are not only in the improved health outcomes that can be achieved though medical and dental team collaboration, but how communities can get involved in supporting recruitment of providers and care for underserved populations. In addition, he would like to study efforts to develop leadership skills in health care learners and recent graduates interested in serving in eastern North Carolina.

Ali Vahdati | vahdatia18@ecu.edu

Engineering
College of Engineering and Technology

Dr. Vahdati's research lies at the nexus of engineering, biology, and medicine. His work utilizes computer modeling (virtual experiments) and experimental techniques to study the interaction of implants and tissue-engineered constructs with native tissue and to predict the outcome of various surgeries that interrupt the natural mechanical environment of the cells and tissues in the human body. Ultimately, his research aims at finding solutions and developing technologies for prevention and early diagnosis of soft and calcified tissue pathologies and improving and predicting the outcome of various surgeries.

Michael Wheeler | wheelerm@ecu.edu

Nutrition Science
College of Allied Health Sciences

Dr. Wheeler's research examines the role of nutrient availability and nutrient "sensing" on immune cell function, using animal genetics and "-omics" approaches. The interaction between nutrient metabolism and immunity has important implications in metabolic diseases as well as cancer development. The long-term goal of this research is to identify "targetable" pathways that can be exploited by drug therapies for the prevention or treatment of chronic diseases. He is serving as chair (interim) of his department.

Nancy Winterbauer | winterbauern@ecu.edu

Public Health
Brody School of Medicine

Dr. Winterbauer takes a participatory and mixed-method approach to research. She has a particular, but not exclusive, interest in diabetes prevention and management. Recent work includes a diabetes awareness campaign based on recent lessons from the field of entertainment education. Proposed work includes elaboration of photovoice methods, that are suited to low literacy population groups. She is also interested in health services delivery and treatment informed from the patient perspective.

Wanda Wright | wrightwa15@ecu.edu

Foundational Sciences and Research
School of Dental Medicine

Dr. Wright's research interests include health disparities, oral health-related quality of life, and tobacco cessation. Her work involves examining factors associated with the development of a tobacco cessation program at the ECU School of Dental Medicine from the patient and provider perspectives. She also completed the development and psychometric testing of the Teen Oral Health Related Quality of Life Instrument. Most recently, she has been examining factors associated with access to dental service in rural North Carolina and measuring the level of cultural competency of dental students before and after didactic instruction.

Rui Wu | wur18@ecu.edu

Computer Science
College of Engineering and Technology

Dr. Wu's research interests focus on data mining and data visualization. He has worked with hydrological scientists for the last four years. One of his projects focuses on improving a physically-based parameter-distributed hydrological model. The original model requires abundant time to calibrate (e.g. 3 years). His proposed method is able to generate equivalent quality results in a much shorter time frame (e.g. 1 day). The key idea is to use data mining techniques to find out possible connections between model outputs and inputs. He would like to work with anyone who is interested in environmental parameter prediction or classification models, such as fire models and streamflow prediction models.

Jie Yang | yangji18@ecu.edu

Social Work
College of Health and Human Performance

Dr. Yang's research focuses broadly on healthy aging. In particular, she is interested in productive engagement and social isolation among older adults. Both areas have recently been identified as one of the 12 grand challenges in social work. She has researched the aging workforce, the unemployed, and senior LGBT adults. She is interested in identifying social and environmental risk and protective factors that can help to provide evidence and insights for future intervention development. Yang also specializes in longitudinal analyses and looks forward to the collaboration with scholars of similar interests.

REDE LEADERSHIP

Jay Golden | goldenj17@ecu.edu

Dr. Golden was named the Vice Chancellor for ECU's Division of Research, Economic Development and Engagement (REDE) in 2017. Golden came to ECU from Duke University where he served as the Associate Vice Provost for Research and directed the university's corporate relations office. Golden received his doctorate in engineering from the University of Cambridge where he also earned his master's in environmental engineering and sustainable development as part of a joint program with the Massachusetts Institute of Technology. As Vice Chancellor, Golden oversees the REDE initiatives of ECU, while promoting the university's research accomplishments, centers and institutes to a national audience.

Mary Farwell | farwellm@ecu.edu

Dr. Farwell serves as the Assistant Vice Chancellor for Academic Affairs, Director of Undergraduate Research, and Professor of Biology at ECU. Farwell received her doctorate in biochemistry from the University of California, Berkeley. Farwell's research interests include mitochondrial regulation of cell death in cancer cells and student success in STEM.

Jim Menke | menkej@ecu.edu

Retired U.S. Navy Master Chief Petty Officer Menke is the Director of National Security Initiatives in the Office of National Security and Industry Initiatives. Menke spent 30 years in the Navy, reaching the branch's highest enlisted rank. He holds both master's and bachelor's degree in health sciences and previously served ECU as the Director of Military Research Partnerships. He is committed to strengthening ECU connections with military and federal partners, increasing research development opportunities and connecting researchers with national security projects. These partnerships allow ECU faculty to examine aspects of U.S. national security, while assisting the university as it introduces new programs and services that help protect the nation from attack.

Sharon Paynter | paynters@ecu.edu

Dr. Paynter is the Assistant Vice Chancellor for Community Engagement and Research. She also serves as an Associate Professor of Political Science at ECU. Paynter joined the ECU faculty in 2009. She received her doctorate in public administration from North Carolina State University, her master's from the University of Denver, and her MPA and bachelor's degrees from UNC-Chapel Hill. Paynter's research interests include hunger, poverty, and public policy.

Kathryn Verbanac | verbanack@ecu.edu

Dr. Verbanac serves as the Assistant Vice Chancellor for Health Sciences Research, Director of Postdoctoral Affairs, and Professor of Surgery at ECU. Verbanac received her doctorate in biochemistry from the University of Iowa. Verbanac's current breast cancer research focuses on the tissue microenvironment and immune signatures at metastatic sites.

Mark Wdowik | wdowikm18@ecu.edu

Mr. Wdowik joined REDE in 2018 after being named the inaugural Executive Director for the newly created Office of Innovation and New Ventures at East Carolina University. He joins ECU after a 20-plus-year career in innovation development in higher education with extensive experience with technology transfer, commercialization, economic development, investment funds, industry partnerships, new product development, and startups. Wdowik oversees the university's rapidly expanding efforts to discover, develop and commercialize ideas and inventions cultivated by ECU's students, faculty and partners.

Keith Wheeler | wheelerch18@ecu.edu

Retired U.S. Navy Capt. Wheeler serves as ECU's Executive Director of National Security and Industry Initiatives. The Manteo native has held numerous leadership positions in the Navy, including commanding officer of U.S.S. McInerney where he led the Navy's first at-sea autonomous flight tests of the Fire Scout unmanned aerial vehicle, as well as a daring night capture of a self-propelled semi-submersible drug sub off the coast of Central America. Wheeler plays a critical role in supporting REDE's mission to actively grow ECU's research enterprise with federal agencies and industry partners.

REDE STAFF

Cassie Keel | keelc15@ecu.edu

Ms. Keel is the University Program Support Associate for the Office of Community Engagement and Research (OCER). She received her bachelor's in psychology from East Carolina University. She manages the SECU Public Fellows Internship program and supports other OCER efforts.

Matt Smith | smithmatt17@ecu.edu

Mr. Smith spent seven years in the newspaper industry before joining the division as REDE's Communication Specialist. Smith earned his master's in digital media from UNC-Chapel Hill. Smith oversees REDE's communication efforts with internal and external media outlets, while operating the division's online presence.