

April 18, 2019

The Office of Research and Economic Development is pleased to announce awards received by UNC Charlotte Researchers in the month of March, 2019.

Total amount awarded for the month of March was \$3,687,652

Fiscal Year To Date Total: \$38,028,526

Award Title	Amount	Investigators	PI Dept.	Sponsors
2018-2019 Governor's Institute on Substance Abuse Scholarships	\$10,000	Principal Investigator (PI): Lassiter, Pamela	Counseling	Sponsor: Governors Institute on Alcohol and Substance Abuse
2019 ASC Cultural Life Assessment	\$9,500	Principal Investigator (PI): Hochwalt, Bridget	Urban Institute	Sponsor: Arts and Sciences Council
2019 NC Junior Science and Humanities Symposium Competition	\$21,000	Principal Investigator (PI): Wickliff, Alisa Co-PI: Pugalee, David	Center for STEM Education	Sponsor: National Science Teachers Association (NSTA) Prime Sponsor: Army Research Laboratory (ARL)
2019 NC Junior Science and Humanities Symposium Competition (Supplement)	\$13,634	Principal Investigator (PI): Wickliff, Alisa Co-PI: Pugalee, David	Center for STEM Education	Sponsor: National Science Teachers Association (NSTA) Prime Sponsor: Army Educational Outreach Program (AEOP)
A Nutrimetabolomics Approach to Identify the Biomarkers of Whole Grain Intake	\$341,611	Principal Investigator (PI): Sha, Wei Co-PI: Fodor, Anthony	Bioinformatics and Genomics	Sponsor: North Carolina Agricultural and Technical State University (NCAT) Prime Sponsor: USDA National Institute of Food and Agriculture (NIFA)
Anti-Racist Improvisational Pedagogy in Elementary School Settings: Challenges and Possibilities	\$39,707	Principal Investigator (PI): Miller, Erin	Reading and Elementary Education	Sponsor: Spencer Foundation

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Bronze Age environmental dynamics and agrarian responses in the Southern Levant	\$189,111	Principal Investigator (PI): Falconer, Steven Co-PIs: Fall, Patricia	Anthropology	Sponsor: National Science Foundation (NSF)
Calcium: magnesium balance, microbiota, and necroptosis and inflammation	\$129,256	Principal Investigator (PI): Fodor, Anthony	Bioinformatics and Genomics	Sponsor: Vanderbilt University Medical Center Prime Sponsor: National Institutes of Health (NIH)
CAREER: An Experimentally-Infused Plant and Control Optimization Framework for Airborne Wind Energy Systems	\$84,825	Principal Investigator (PI): Tkacik, Peter	Mechanical Engineering and Engineering Science	Sponsor: North Carolina State University (NCSU) Prime Sponsor: National Science Foundation (NSF)
Center for Gastrointestinal Biology and Disease	\$23,303	Principal Investigator (PI): Fodor, Anthony	Bioinformatics and Genomics	Sponsor: University of North Carolina at Chapel Hill (UNC-CH) Prime Sponsor: National Institutes of Health (NIH)
Collimated beam and water quality testing to be used in UV system evaluation at Sugar Creek and Irwin Creek wastewater treatment plants	\$72,617	Principal Investigator (PI): Keen, Olya	Civil and Environmental Engineering	Sponsor: HDR, Inc. Prime Sponsor: City of Charlotte
CRII: CSR: Partitioning Large Graphs in Deep Storage Architecture	\$7,560	Principal Investigator (PI): Dai, Dong	Computer Science	Sponsor: National Science Foundation (NSF)
Definition of Success Survey	\$9,326	Principal Investigator (PI): Nicholas, Thomas	Engineering Technology and Construction Management	Sponsor: North Carolina State University (NCSU) Prime Sponsor: North Carolina Department of Transportation (NCDOT)
Developing an Outcome Measurement Plan for G.I.R.L. and Economic Mobility	\$20,000	Principal Investigator (PI): Ly, May Ying	Metropolitan Studies and Extended Academic Programs	Sponsor: Girl Scouts Hornets Nest Council

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Developing and Implementing Healthy Food Guidelines for UNC Charlotte Fast Food Vendors	\$50,000	Principal Investigator (PI): Racine, Elizabeth Co-PI: Coffman, Maren	Public Health Sciences	Sponsor: North Carolina Department of Health and Human Services (NCDHHS) Prime Sponsor: Centers for Disease Control and Prevention (CDC)
Displace, Return, and Reconstruct: Population Movement and Resilience to Instability	\$102,630	Principal Investigator (PI): Walsh, James	Political Science and Public Administration	Sponsor: Department of Defense (DOD)
DoS English Language Specialist Award to Tunisia Spring 2019	\$5,165	Principal Investigator (PI): Salas, Spencer	Middle, Secondary and K-12 Education	Sponsor: Georgetown University Prime Sponsor: Department of State (DOS)
First Phase of Development of a Low-Cost, Portable, and RapidNondestructive Inspection Tool for Wood Distribution Poles	\$75,989	Principal Investigator (PI): Whelan, Matthew Co-PIs: Young, David	Civil and Environmental Engineering	Sponsor: Duke Energy Corporation
High-speed manufacturing of monolithic silicon carbide freeform imaging systems	\$31,313	Principal Investigator (PI): Davies, Matthew Co-PIs: Evans, Christopher; Owen, Joseph	Mechanical Engineering and Engineering Science	Sponsor: University of Rochester Prime Sponsor: National Science Foundation (NSF)
How Long Can They Stand it: Evaluating the Effectiveness of Reflexology in Reducing Pain, Fatigue, Anxiety, and Stress of Employees who Stand at Work	\$1,400	Principal Investigator (PI): Shanock, Linda	Psychological Science	Sponsor: Psi Chi International Honor Society in Psychology
Identification of novel QTLs associated with broad resistance to soybean cyst nematodes (SCN)	\$16,681	Principal Investigator (PI): Song, Bao-Hua	Biological Sciences	Sponsor: North Carolina Soybean Producers Association (NCSPA)
In-process turning metrology and data learning	\$223,242	Principal Investigator (PI): Schmitz, Tony Co-PI: Cherukuri, Harischandra	Mechanical Engineering and Engineering Science	Sponsor: DOE Lawrence Livermore National Laboratory (LLNL) Prime Sponsor: Department of Energy (DOE)

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Laser Confocal Microscope for High-Energy Laser Windows	\$150,485	Principal Investigator (PI): Aggarwal, Ishwar	Physics and Optical Science	Sponsor: DOD DN Office of Naval Research (ONR)
Launching The Latin Americanist at UNC Press	\$4,000	Principal Investigator (PI): Weeks, Gregory Co-PI: Buchenau, Jurgen	Deans Office College of Liberal Arts and Sciences	Sponsor: UNC Press Office of Scholarly Publishing Services (OSPS)
Loss of novel end joining factor with dysfunction of BRCA1 contributes to treatment resistance	\$26,197	Principal Investigator (PI): Tomida, Junya	Biological Sciences	Sponsor: National Institutes of Health (NIH)
Lung Diseases among Coal Miners	\$16,714	Principal Investigator (PI): Arif, Ahmed	Public Health Sciences	Sponsor: University of Kentucky (UK) Prime Sponsor: DHHS Health Resources and Services Administration (HRSA)
Machining Process Modeling and Optimization for Mobile Machine	\$53,685	Principal Investigator (PI): Schmitz, Tony	Mechanical Engineering and Engineering Science	Sponsor: Korea Institute of Machinery and Materials (KIMM)
Mechanical Testing of 115 kV T-Pylon Post Insulator Assembly	\$39,196	Principal Investigator (PI): Young, David Co-PIs: Gergely, Ioan	Civil and Environmental Engineering	Sponsor: Electric Power Research Institute (EPRI)
Near-Roadway and Ambient Air Pollution Exposure and the Gut Microbiome: Implications for Obesity and Insulin Resistance in Adolescence	\$18,000	Principal Investigator (PI): Fodor, Anthony	Bioinformatics and Genomics	Sponsor: University of Colorado Boulder Prime Sponsor: National Institutes of Health (NIH)
Neuromuscular and Biomechanical Responses to External Focus of Attention Feedback during Functional Tasks in Individuals with Chronic Ankle Instability	\$500	Principal Investigator (PI): Donovan, Luke	Kinesiology	Sponsor: Mid Atlantic Athletic Trainers Association (MAATA)
Salvation Army of Greater Charlotte: Rapid Rehousing Assessment Year 2	\$12,500	Principal Investigator (PI): Gaines, Angelique	Urban Institute	Sponsor: The Salvation Army, Greater Charlotte Area

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SaTC: CORE: Medium: Implicit One-handed Mobile User Authentication by Induced Thumb Biometrics on Touch-screen Handheld Devices	\$626,030	Principal Investigator (PI): Zhou, Lina Co-PI: Zhang, Dongsong	Business Info Systems/Oper	Sponsor: National Science Foundation (NSF)
SBA Federal SBTDC Budget for the 2019 Program Year	\$384,711	Principal Investigator (PI): McIntire, Robin	Small Business Technology Development Center (SBTDC)	Sponsor: North Carolina Small Business and Technology Development Center (NC SBTDC) Prime Sponsor: US Small Business Administration (SBA)
SBIR: NSF SBIR Phase I: LBO Diffuse Optical Components	\$74,459	Principal Investigator (PI): Poutous, Menelaos	Physics and Optical Science	Sponsor: GAMDAN Optics Inc. Prime Sponsor: National Science Foundation (NSF)
Support for Development of an AIERCI Tool to Ensure Uninterrupted Energy Flow from Cyber Attacks Targeting Essential Forecasting Data for Grid Operations	\$59,924	Principal Investigator (PI): Hong, Tao	Systems Engineering and Engineering Management	Sponsor: DOE Brookhaven National Laboratory Prime Sponsor: Department of Energy (DOE)
Tailoring Mg-alloy System through Composition/Microstructure/Severe Plastic Deformation for Army Extreme Dynamic Environment Applications	\$10,000	Principal Investigator (PI): Wei, Qiuming	Mechanical Engineering and Engineering Science	Sponsor: Johns Hopkins University Prime Sponsor: DoD Department of Army (DA) Army Research Laboratory (ARL)
The association of occupation with mental illnesses and death by suicide.	\$108,490	Principal Investigator (PI): Arif, Ahmed	Public Health Sciences	Sponsor: University of Kentucky (UK) Prime Sponsor: DHHS Health Resources and Services Administration (HRSA)
The Center for Advanced Power Engineering Research (CAPER)	\$68,750	Principal Investigator (PI): Mazzola, Michael	Energy Production and Infrastructure Center	Sponsor: Savannah River Nuclear Solutions Prime Sponsor: DOE Savannah River National Laboratory

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The Center for Advanced Power Engineering Research (CAPER)	\$50,000	Principal Investigator (PI): Mazzola, Michael	Energy Production and Infrastructure Center	Sponsor: Duke Energy Corporation
The Center for Advanced Power Engineering Research (CAPER)	\$95,000	Principal Investigator (PI): Mazzola, Michael	Energy Production and Infrastructure Center	Sponsor: Siemens USA
The Vaginal Microbiome and Racial Disparity in Preterm Delivery	\$158,824	Principal Investigator (PI): Fodor, Anthony	Bioinformatics and Genomics	Sponsor: University of North Carolina at Chapel Hill (UNC-CH) Prime Sponsor: National Institutes of Health (NIH)
Undergraduate Internship in Soil Characterization	\$15,316	Principal Investigator (PI): Clinton, Sandra Co-PI: Eppes, Martha	Geography and Earth Sciences	Sponsor: Electric Power Research Institute (EPRI)
VDOT Statewide Maintenance Consultant and Augmentation	\$100,726	Principal Investigator (PI): Shoghli, Omidreza Co-PI: Tabkhivayghan, Hamed	Engineering Technology and Construction Management	Sponsor: Leidos Holdings, Inc. Prime Sponsor: Virginia Department of Transportation
Ventureprise Launch	\$100,000	Principal Investigator (PI): Collins, Devin	Ventureprise	Sponsor: NC IDEA
Water Quality Monitoring for Tributary 5, McDowell Creek Watershed, Mecklenburg County, N.C Supplement	\$20,611	Principal Investigator (PI): Allan, Craig	Geography and Earth Sciences	Sponsor: City of Charlotte Storm Water Services
What Feeds Firestorms of Emotion? Emotion Regulation, Emotion Contagion, and Collective Behavior in Socio-Political Events	\$5,700	Principal Investigator (PI): Maestas, Cherie Co-PIs: Shaikh, Samira; Levens, Sara; Gallicano, Tiffany; Zadrozny, Wlodek	Political Science and Public Administration	Sponsor: DOD DA Army Research Office (ARO)
What species is that?	\$9,964	Principal Investigator (PI): Reitzel, Adam	Biological Sciences	Sponsor: VWR Charitable Foundation