September 26, 2019

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

Total amount awarded for the month of August was $5,181,658   *Fiscal Year To Date Total: $12,020,703*

Award Title	Amount	Investigators	PI Dept.	Sponsors
2016-2017 Charlotte-Mecklenburg Quality of Life Study (City)	$40,000	**Principal Investigator (PI):** Simmons, Laura	Urban Institute	**Sponsor:** City of Charlotte
A Research Study on Literacy Instruction in Educator Preparation and Practice	$99,693	**Principal Investigator (PI):** Pilonieta, Paola **Co-PIs:** Whittingham, Colleen; McIntyre, Ellen	Reading and Elementary Education	**Sponsor:** University of North Carolina at Chapel Hill (UNC-CH) **Prime Sponsor:** University of North Carolina System Office (UNC SysOff)
Acquisition of the Microscale Thermophoresis Instrument	$142,650	**Principal Investigator (PI):** Nesmelova, Irina	Physics and Optical Science	**Sponsor:** National Institutes of Health (NIH)
Arclin Fire Resistant Coatings: Experimental Fire Testing	$33,785	**Principal Investigator (PI):** Braxtan, Nicole **Co-PI:** Weggel, David	Civil and Environmental Engineering	**Sponsor:** Arclin, Inc.
Assessment of African American Preferences in a Peer Support Program for People with Type 2 Diabetes	$5,000	**Principal Investigator (PI):** Okoro, Florence	School of Nursing	**Sponsor:** Sigma Theta Tau International Honor Society of Nursing
CIS GAANN Fellows	$250,405	**Principal Investigator (PI):** Shin, Min **Co-PIs:** Shehab, Mohamed; Ras, Zbigniew	Computer Science	**Sponsor:** US Department of Education (DOED)

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Clinical Site Development Proposal	$9,500	**Principal Investigator (PI):** Anderson, Heather	School of Nursing	**Sponsor:** NC Carolina Area Health Education Center (NC AHEC)
Collaborative Research: AGEP Transformation Alliance: A Department-Led Model for Increasing Diversity from the Doctorate to the Professoriate	$303,689	**Principal Investigator (PI):** Huet, Yvette **Co-PI:** Merriweather, Lisa	Advance Fado	**Sponsor:** National Science Foundation (NSF)
Collaborative Research: Discoveries in Multiphase Detonations: Fuel Droplet Processing at Extreme Conditions	$200,000	**Principal Investigator (PI):** Ramaprabhu, Praveen	Mechanical Engineering and Engineering Science	**Sponsor:** National Science Foundation (NSF)
Collaborative Research: Engineered Water Repellency to Mitigate Frost Susceptibility: Decoupling Osmotic and Matric Potential	$335,315	**Principal Investigator (PI):** Daniels, John	Civil and Environmental Engineering	**Sponsor:** National Science Foundation (NSF)
Computer Based Training Application for Remote Visual Examination	$125,000	**Principal Investigator (PI):** Shin, Min	Computer Science	**Sponsor:** Electric Power Research Institute (EPRI)
Confidential	$40,000	**Principal Investigator (PI):** Brouwer, Cory	Bioinformatics and Genomics	**Sponsor:** Confidential
Deep Learning Reliability Awareness of Converters at the Edge	$150,000	**Principal Investigator (PI):** Parkhideh, Babak **Co-PIs:** Tabkhivayghan, Hamed; Mazzola, Michael; Cox, Robert	Electrical and Computer Engineering	**Sponsor:** DOD DA Army Research Laboratory (ARL)

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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)
Dispersal, Connectivity and Local Adaptation Along an Extreme Environmental Gradient	$798,798	**Principal Investigator (PI):** Reitzel, Adam	Biological Sciences	**Sponsor:** National Science Foundation (NSF)
DoD CySP at UNC Charlotte	$88,774	**Principal Investigator (PI):** Chu, Bei-Tseng	Software and Information Systems	**Sponsor:** DOD National Security Agency (NSA)
Dynamic Modeling of Recurrent Events and Its Applications	$139,868	**Principal Investigator (PI):** Sun, Yanqing	Mathematics and Statistics	**Sponsor:** National Science Foundation (NSF)
Enhancing Bilateral Control of Space Telerobots using Trust-Based Shared Control Paradigms	$20,000	**Principal Investigator (PI):** Ghasemi, Amirhossein	Mechanical Engineering and Engineering Science	**Sponsor:** North Carolina Space Grant Consortium (NC Space Grant) **Prime Sponsor:** National Aeronautics and Space Administration (NASA)
Enhancing Doctoral Training While Addressing Disparities in Health Care Access: Incorporating Substance/Opioid Use Disorder (SUD/OUD) Treatment into Clinical Health Psychology and Integrated Behavioral Healthcare (IBH)	$248,395	**Principal Investigator (PI):** Peterman, Amy	Psychological Science	**Sponsor:** DHHS Health Resources and Services Administration (HRSA)

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Error Sources in XCT Systems	$52,134	**Principal Investigator (PI):** Morse, Edward	Mechanical Engineering and Engineering Science	**Sponsor:** DOC National Institute of Standards and Technology (NIST)
Evaluating Corrosive Site Performance and Policy with Concrete Admixtures	$5,500	**Principal Investigator (PI):** Tempest, Brett **Co-PI:** Cavalline, Tara	Civil and Environmental Engineering	**Sponsor:** North Carolina Department of Transportation (NCDOT) **Prime Sponsor:** US Department of Transportation (DOT)
External Versus Internal Feedback on Biomechanics and Self-Reported Function in Patients with Chronic Ankle Instability	$57,458	**Principal Investigator (PI):** Donovan, Luke **Co-PI:** Fenwick, Abbey	Kinesiology	**Sponsor:** National Athletic Trainers' Association (NATA)
Fabrication of Large Space-Qualified Reflective Freeform Optics for Imaging Systems	$92,499	**Principal Investigator (PI):** Davies, Matthew	Mechanical Engineering and Engineering Science	**Sponsor:** University of Rochester **Prime Sponsor:** DOD DAF Air Force Research Laboratory (AFRL)
GA: Assist the City of Charlotte's Planning, Design and Development Department with the Development of the Charlotte Future 2040 Comprehensive Plan.	$26,674	**Principal Investigator (PI):** Thomas, Deborah	Geography and Earth Sciences	**Sponsor:** City of Charlotte Planning, Design Development Department
Generation of 3D Point Clouds from Multiple Line-Data Sensors	$10,602	**Principal Investigator (PI):** Morse, Edward	Mechanical Engineering and Engineering Science	**Sponsor:** Vantage Corporation
Japanese Languages Materials Research at Regenstein Library, University of Chicago	$500	**Principal Investigator (PI):** Kaffen, Philip	Languages and Culture Studies	**Sponsor:** University of Chicago

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Mecklenburg County Senior Citizen Health Risk Assessment Testing Outreach Program	$222,513	**Principal Investigator (PI):** Moore-Harrison, Trudy	Kinesiology	**Sponsor:** Sharon Towers Retirement Community
Metrology for Additive Manufacturing: Technical Proposal	$30,000	**Principal Investigator (PI):** Evans, Christopher	Mechanical Engineering and Engineering Science	**Sponsor:** DOC National Institute of Standards and Technology (NIST)
Metrology of Large Space-Qualified Reflective Freeform Optics for TMA Systems	$87,658	**Principal Investigator (PI):** Evans, Christopher	Mechanical Engineering and Engineering Science	**Sponsor:** University of Rochester **Prime Sponsor:** National Science Foundation (NSF)
MPA Public Service Fellowship with the Mayfield Memorial Community Development Corporation	$22,495	**Principal Investigator (PI):** Barth, Thomas	Political Science and Public Administration	**Sponsor:** Mayfield Memorial Community Development Corporation
Multiscale and Multiphysical Modeling Methodology of Lithium-Ion Battery and Its Utilization in Failure Analysis	$100,000	**Principal Investigator (PI):** Xu, Jun	Mechanical Engineering and Engineering Science	**Sponsor:** Zhuhai CosMX Battery Co., Ltd.
National Science Foundation Graduate Research Fellowship Program	$5,000	**Principal Investigator (PI):** Reynolds, Thomas	Graduate School	**Sponsor:** National Science Foundation (NSF)
NSF Center for Metamaterials Phase II	$155,177	**Principal Investigator (PI):** Aggarwal, Ishwar **Co-PI:** Hofmann, Tino	Physics and Optical Science	**Sponsor:** National Science Foundation (NSF)
Nurse Anesthesia Traineeship, UNC Charlotte	$30,183	**Principal Investigator (PI):** Langford, David	School of Nursing	**Sponsor:** DHHS Health Resources and Services Administration (HRSA)

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Occupancy-Based Control of Variable-Air-Volume Terminal Boxes	$4,100	**Principal Investigator (PI):** Wang, Weimin	Engineering Technology and Construction Management	**Sponsor:** American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
Phase II I/UCRC UNC Charlotte: Center for Freeform Optics	$190,773	**Principal Investigator (PI):** Suleski, Thomas **Co-PI:** Falaggis, Konstantinos	Physics and Optical Science	**Sponsor:** National Science Foundation (NSF)
Promoting Self-Determination for Youth with Disabilities: A Goal-Setting Challenge App	$161,169	**Principal Investigator (PI):** Mazzotti, Valerie	Special Education and Child Development	**Sponsor:** University of Kansas **Prime Sponsor:** US Department of Education (DOED)
Religion & Sex Abuse	$3,300	**Principal Investigator (PI):** Brintnall, Kent	Religious Studies	**Sponsor:** University of California at Riverside (UCR) **Prime Sponsor:** Henry Luce Foundation
SHF: Small: Collaborative Research: A Parallel Graph-Based Paradigm for HPC Parallel File System Checkers	$49,946	**Principal Investigator (PI):** Dai, Dong	Computer Science	**Sponsor:** National Science Foundation (NSF)
Structural and Functional Characteristics of Scots Pine Defensins as Candidates for use in Control of Crop Diseases	$15,000	**Principal Investigator (PI):** Nesmelova, Irina	Physics and Optical Science	**Sponsor:** CRDF Global
The Economic Halo Effect of Rural United Methodist Churches in North Carolina	$70,000	**Principal Investigator (PI):** Thomas, Marye **Co-PI:** Zager, Kathryn	Urban Institute	**Sponsor:** Partners for Sacred Places
Toward a Framework of Inclusive STEM Transfer Culture	$48,424	**Principal Investigator (PI):** Dika, Sandra	Educational Leadership	**Sponsor:** Spencer Foundation

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Two-Phase Sampling with Interval-Censored Data	$120,000	**Principal Investigator (PI):** Zhou, Qingning	Mathematics and Statistics	**Sponsor:** National Science Foundation (NSF)
UNC Charlotte-German Campus Week 2019Fall of the Berlin Wall: 1989-2019	$4,476	**Principal Investigator (PI):** Aliaga-Buchenau, Ana-Isabel	Languages and Culture Studies	**Sponsor:** Embassy of the Federal Republic of Germany
University of North Carolina at Charlotte Culturally Responsive Teaching (UNCC CResT)	$335,415	**Principal Investigator (PI):** Fernandes, Anthony **Co-PI:** Pugalee, David	Mathematics and Statistics	**Sponsor:** National Science Foundation (NSF)
Using Real Options for Making Sustainment Decisions within Complex Integrated Engineering-Management Acquisition Systems Under Outcome-Based Contracts	$120,000	**Principal Investigator (PI):** Goudarzi, Navid	Engineering Technology and Construction Management	**Sponsor:** DOD Washington Headquarters Services (WHI)
VDOT Statewide Maintenance Consultant and Augmentation	$79,790	**Principal Investigator (PI):** Shoghli, Omidreza **Co-PI:** Tabkhivayghan, Hamed	Engineering Technology and Construction Management	**Sponsor:** Leidos Holdings, Inc. **Prime Sponsor:** Virginia Department of Transportation