

October 21, 2020

The Office of Research and Economic Development is pleased to announce awards received by UNC Charlotte Researchers in the month of September, 2020.

*Total amount awarded for the month of September was \$11,227,404      Fiscal Year To Date Total: \$20,511,934*

<b>Award Title</b>	<b>Amount</b>	<b>Investigators</b>	<b>PI Dept.</b>	<b>Sponsors</b>
<b>2020 Fulbright U.S. Program Pre-Departure Orientation - East Asia and the Pacific</b>	\$78,182	<b>Principal Investigator (PI):</b> Kinter, Lauren <b>Co-PIs:</b> Hoff, Joseph; Ladenheim, Rachel; Meyer, Sheryl	Intercultural Outreach	<b>Sponsor:</b> Institute of International Education, Inc. (IIE) <b>Prime Sponsor:</b> US Department of State (DOS)
<b>AirEdge: Robust Airborne Wireless Edge Computing Network using Swarming UAVs</b>	\$333,439	<b>Principal Investigator (PI):</b> Han, Tao <b>Co-PI:</b> Wang, Pu	Electrical and Computer Engineering	<b>Sponsor:</b> National Science Foundation (NSF)
<b>Analyze Adsorbable Fluorine Contents in Samples from Battelle</b>	\$1,000	<b>Principal Investigator (PI):</b> Sun, Mei	Civil and Environmental Engineering	<b>Sponsor:</b> Battelle
<b>ARSS Shims for Fiber Stamping</b>	\$10,000	<b>Principal Investigator (PI):</b> Hutchens, Thomas	Physics and Optical Science	<b>Sponsor:</b> IRflex Corporation
<b>Beyond the Top Hit: Mining Unknown Structural Information from Hybrid Similarity Search Hit Lists</b>	\$35,138	<b>Principal Investigator (PI):</b> Cooper, Brian	Chemistry	<b>Sponsor:</b> DOC National Institute of Standards and Technology (NIST)
<b>Blue Ridge Myth and Memory: Tracing Appalachian Identity Through Scottish Foodways</b>	\$30,250	<b>Principal Investigator (PI):</b> Stokes, Ashli	Communication Studies	<b>Sponsor:</b> Fulbright Scholar Program
<b>Bridges Fellow Program: Promoting Undergraduate Success and Graduation in Biomedical Sciences</b>	\$319,354	<b>Principal Investigator (PI):</b> Richardson, Christine <b>Co-PIs:</b> Stearns, Mary; Bates, Tonya	Biological Sciences	<b>Sponsor:</b> National Institutes of Health (NIH)

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<b>Building Healthy Lifestyles from All Directions</b>	\$104,035	<b>Principal Investigator (PI):</b> Racine, Elizabeth <b>Co-PIs:</b> Ledford, Meredith; Moore, Shauna	Public Health Sciences	<b>Sponsor:</b> Cabarrus Partnership for Children
<b>Caper Enhancement: Comparative Power Flow Analysis and Power Flow Quality Criteria - Phase 2</b>	\$45,000	<b>Principal Investigator (PI):</b> Cecchi, Valentina <b>Co-PIs:</b> Chowdhury, Badrul; Cecchi, Valentina	Electrical and Computer Engineering	<b>Sponsor:</b> Duke Energy Corporation
<b>CIS GAANN Fellows</b>	\$302,220	<b>Principal Investigator (PI):</b> Shin, Min <b>Co-PIs:</b> Wilson, Dale-Marie; Lipford, Heather; Shehab, Mohamed; Akella, Srinivas; Ras, Zbigniew	Computer Science	<b>Sponsor:</b> US Department of Education (DOED)
<b>Community Survey and Evaluation of 'Two Million Masks' Campaign in the Greater Charlotte Area</b>	\$29,300	<b>Principal Investigator (PI):</b> Venkitasubramanian , Kailas <b>Co-PI:</b> Anderson, Bridget	Urban Institute	<b>Sponsor:</b> Foundation For The Carolinas (FFTC) <b>Prime Sponsor:</b> Atrium Health (Formerly Carolinas HealthCare System)
<b>Cross-Platform and Graphical Software Tool for Adaptive LC/MS and GC/MS Metabolomics Data Preprocessing</b>	\$200,000	<b>Principal Investigator (PI):</b> Du, Xiuxia	Bioinformatics and Genomics	<b>Sponsor:</b> National Institutes of Health (NIH)
<b>Developing a Safe and Cost-Effective Physics-Based Flight Control Methodology for a UAV-Enabled Bridge Inspection</b>	\$23,824	<b>Principal Investigator (PI):</b> Cavalline, Tara	Engineering Technology and Construction Management	<b>Sponsor:</b> North Carolina Agricultural and Technical State University (NCAT) <b>Prime Sponsor:</b> North Carolina Department of Transportation (NCDOT)

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<b>Developing and Implementing Healthy Food Guidelines for UNC Charlotte Fast Food Vendors</b>	\$50,000	<b>Principal Investigator (PI):</b> Racine, Elizabeth <b>Co-PI:</b> Coffman, Maren	Public Health Sciences	<b>Sponsor:</b> North Carolina Department of Health and Human Services (NCDHHS) <b>Prime Sponsor:</b> Centers for Disease Control and Prevention (CDC)
<b>DoD Cybersecurity Scholarship and Capacity Building</b>	\$208,920	<b>Principal Investigator (PI):</b> Chu, Bei-Tseng	Software and Information Systems	<b>Sponsor:</b> DOD National Security Agency (NSA)
<b>Engaging Future Generation War Fighters and Civilians in Research to Understand Cyber and Electronic Warfare, Cyber Defense, and Data Driven Modeling Tools</b>	\$150,000	<b>Principal Investigator (PI):</b> Uddin, Mesbah <b>Co-PIs:</b> Janies, Daniel; Shaikh, Samira	Mechanical Engineering and Engineering Science	<b>Sponsor:</b> DOD Department of Navy (DN) Office of Naval Research (ONR)
<b>Facility Management Performance Benchmarking</b>	\$37,168	<b>Principal Investigator (PI):</b> Smithwick, Jake	Engineering Technology and Construction Management	<b>Sponsor:</b> Simplar Foundation
<b>FMNet: Future Manufacturing: A Network for Cybermanufacturing in Machining</b>	\$499,999	<b>Principal Investigator (PI):</b> Schmid, Steven <b>Co-PI:</b> Mullany, Brigid	Mechanical Engineering and Engineering Science	<b>Sponsor:</b> National Science Foundation (NSF)
<b>Generating EM Waves with Time-Varying Media</b>	\$10,000	<b>Principal Investigator (PI):</b> Mencagli, Mario Junior	Electrical and Computer Engineering	<b>Sponsor:</b> Office for Science and Technology at the Embassy of France
<b>iLEAP: Informal Learning Personalized to Enable Increased STEM Career Exploration and Engagement for Elementary School Girls</b>	\$50,000	<b>Principal Investigator (PI):</b> Maher, Mary	Software and Information Systems	<b>Sponsor:</b> National Science Foundation (NSF)

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<b>Intensive Needs Teachers and Counselor Training Project</b>	\$249,016	<b>Principal Investigator (PI):</b> Anderson, Kelly <b>Co-PI:</b> Foxy, Sejal	Special Education and Child Development	<b>Sponsor:</b> US Department of Education (DOED)
<b>Mechanism of APE1 in DNA Damage Response</b>	\$32,306	<b>Principal Investigator (PI):</b> Yan, Shan	Biological Sciences	<b>Sponsor:</b> National Institutes of Health (NIH)
<b>Mechanisms of Gut Microbiota-Driven Paneth Cell Regulation</b>	\$16,000	<b>Principal Investigator (PI):</b> Fodor, Anthony	Bioinformatics and Genomics	<b>Sponsor:</b> University of North Carolina at Chapel Hill (UNC-CH) <b>Prime Sponsor:</b> National Institutes of Health (NIH)
<b>National Technical Assistance Center on Transition</b>	\$4,099,950	<b>Principal Investigator (PI):</b> Fowler, Catherine <b>Co-PI:</b> Mazzotti, Valerie	Special Education and Child Development	<b>Sponsor:</b> US Department of Education (DOED)
<b>NSF Center for Metamaterials Phase II</b>	\$308,644	<b>Principal Investigator (PI):</b> Aggarwal, Ishwar	Physics and Optical Science	<b>Sponsor:</b> National Science Foundation (NSF) Directorate for Engineering (ENG)
<b>Optimization of BioProcessing for Dry Preservation of GVs</b>	\$75,500	<b>Principal Investigator (PI):</b> Elliott, Gloria	Mechanical Engineering and Engineering Science	<b>Sponsor:</b> Smithsonian Institution (SI) <b>Prime Sponsor:</b> National Institutes of Health (NIH)
<b>Passive Samplers for Per- and Polyfluoroalkyl Substances with Innovative Sorbents</b>	\$130,820	<b>Principal Investigator (PI):</b> Sun, Mei	Civil and Environmental Engineering	<b>Sponsor:</b> Department of Defense (DOD) Strategic Environmental Research and Development Program (SERDP)
<b>Phase II I/UCRC UNC Charlotte: Center for Freeform Optics</b>	\$106,893	<b>Principal Investigator (PI):</b> Suleski, Thomas <b>Co-PI:</b> Falaggis, Konstantinos	Physics and Optical Science	<b>Sponsor:</b> National Science Foundation (NSF)

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<b>Phase II IUCRC University of North Carolina Charlotte: Center for Cybersecurity Analytics and Automation CCAA</b>	\$128,178	<b>Principal Investigator (PI):</b> Lipford, Heather <b>Co-PI:</b> Cukic, Bojan	Software and Information Systems	<b>Sponsor:</b> National Science Foundation (NSF)
<b>Photon++ Evaluation Project</b>	\$18,819	<b>Principal Investigator (PI):</b> Essakiappan, Somasundaram <b>Co-PI:</b> Manjrekar, Madhav	Energy Production and Infrastructure Center	<b>Sponsor:</b> YVI-Labs, Inc.
<b>Project IMPACT: Inclusion Made Practical for All Children and Teachers</b>	\$388,743	<b>Principal Investigator (PI):</b> Wakeman, Shawnee <b>Co-PI:</b> Pennington, Robert	Special Education and Child Development	<b>Sponsor:</b> US Department of Education (DOED)
<b>Promoting Self-Determination for Youth with Disabilities: A Goal-Setting Challenge App</b>	\$177,888	<b>Principal Investigator (PI):</b> Mazzotti, Valerie	Special Education and Child Development	<b>Sponsor:</b> University of Kansas <b>Prime Sponsor:</b> US Department of Education (DOED)
<b>Promoting Teacher Use of the Support Intensity Scale-Children's Version to Engage in Supports Planning to Enhance Access to the General Education Curriculum for Children with Intellectual Disability</b>	\$94,871	<b>Principal Investigator (PI):</b> Walker, Virginia	Special Education and Child Development	<b>Sponsor:</b> University of Kansas <b>Prime Sponsor:</b> US Department of Education (DOED)
<b>Replication of The Paradox of Family Structure and Plans After Work: Why Single Childless Employees May Be the Least Absorbed at Work, (Dumas &amp; Perry-Smith, 2018, AMJ)</b>	\$10,000	<b>Principal Investigator (PI):</b> Gooty, Janaki	Management	<b>Sponsor:</b> Center for Open Science <b>Prime Sponsor:</b> Department of Defense (DOD) Defense Advanced Research Projects Agency (DARPA)
<b>ROI - North Carolina Consortium for Self-Aware Machining and Metrology (CSAM)</b>	\$287,256	<b>Principal Investigator (PI):</b> Cherukuri, Harischandra <b>Co-PI:</b> Falaggis, Konstantinos	Mechanical Engineering and Engineering Science	<b>Sponsor:</b> University of North Carolina System Office (UNC SysOff)

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<b>SBA Federal SBTDC Budget for the 2020-21 Program Year</b>	\$44,671	<b>Principal Investigator (PI):</b> McIntire, Robin	Small Business Technology Development Center (SBTDC)	<b>Sponsor:</b> North Carolina Small Business and Technology Development Center (NC SBTDC) <b>Prime Sponsor:</b> US Small Business Administration (SBA)
<b>Serving Seniors During COVID-19</b>	\$25,200	<b>Principal Investigator (PI):</b> Anderson, Bridget	Urban Institute	<b>Sponsor:</b> Southminster Inc.
<b>SHF: MEDIUM: COLLABORATIVE RESEARCH: PHOTONIC NEURAL NETWORK ACCELERATORS FOR ENERGY-EFFICIENT HETEROGENEOUS MULTICORE ARCHITECTURES</b>	\$143,004	<b>Principal Investigator (PI):</b> Bunescu, Razvan	Computer Science	<b>Sponsor:</b> Ohio University <b>Prime Sponsor:</b> National Science Foundation (NSF)
<b>Smart Start Preschool Impact Evaluation: 2010-2019</b>	\$27,560	<b>Principal Investigator (PI):</b> Lane, Justin	Urban Institute	<b>Sponsor:</b> Mecklenburg County Smart Start Partnership for Children
<b>Subgrade Corrosion Mapping of Steel, Zinc, and Copper in the United States</b>	\$46,254	<b>Principal Investigator (PI):</b> Tang, Wenwu	Geography and Earth Sciences	<b>Sponsor:</b> Electric Power Research Institute (EPRI)
<b>Synthesis and Exploration of Highly Fluorescent Thiazolothiazole Molecular Sensors for Probing Membrane Potential Dynamics</b>	\$462,546	<b>Principal Investigator (PI):</b> Walter, Michael	Chemistry	<b>Sponsor:</b> National Institutes of Health (NIH)
<b>Techno-Economic and Deployment Analysis of Fossil Fuel-Based Power Generation with Integrated Energy Storage</b>	\$499,998	<b>Principal Investigator (PI):</b> Sarunac, Nenad	Energy Production and Infrastructure Center	<b>Sponsor:</b> Department of Energy (DOE) Office of Fossil Energy
<b>The Relatives Impact Study: 2010-2018</b>	\$74,250	<b>Principal Investigator (PI):</b> Lane, Justin	Urban Institute	<b>Sponsor:</b> The Relatives

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<b>TO #1: Advancing Concrete Pavement Technology Solutions - Recycling and Reuse of Waste Products</b>	\$40,000	<b>Principal Investigator (PI):</b> Cavalline, Tara	Engineering Technology and Construction Management	<b>Sponsor:</b> Iowa State University (ISU) <b>Prime Sponsor:</b> Federal Highway Administration (FHWA)
<b>Tracking SARS-CoV-2 in the Wastewater Across a Range of North Carolina Municipalities</b>	\$60,000	<b>Principal Investigator (PI):</b> Munir, Mariya	Civil and Environmental Engineering	<b>Sponsor:</b> University of North Carolina at Chapel Hill (UNC-CH) <b>Prime Sponsor:</b> North Carolina Policy Collaboratory
<b>Transforming City of Charlotte with Immersive Visual Data</b>	\$239,871	<b>Principal Investigator (PI):</b> Lee, Ming-Chun	School of Architecture	<b>Sponsor:</b> John S and James L Knight Foundation
<b>UNC Charlotte GenCyber: Promoting GenCyber with Middle and Secondary Teachers</b>	\$95,665	<b>Principal Investigator (PI):</b> Pugalee, David <b>Co-PIs:</b> Wickliff, Alisa; Mejias, Marlon	Center for STEM Education	<b>Sponsor:</b> Department of Defense (DOD) National Security Agency (NSA)
<b>UNC Charlotte PhD Program in Special Education with a Specialty in Multi-tiered Interventions</b>	\$249,999	<b>Principal Investigator (PI):</b> Wood, Charles <b>Co-PI:</b> Lo, Ya-yu	Special Education and Child Development	<b>Sponsor:</b> US Department of Education (DOED)
<b>UNC Charlotte Teacher Residency Program</b>	\$135,663	<b>Principal Investigator (PI):</b> Petty, Teresa <b>Co-PIs:</b> McCulloch, Allison; Polly, Andrew; Fitchett, Paul; Kissau, Scott	Deans Office College of Education	<b>Sponsor:</b> US Department of Education (DOED)
<b>Understanding ER Chaperone-Mediated RNR Regulation</b>	\$440,010	<b>Principal Investigator (PI):</b> Truman, Andrew	Biological Sciences	<b>Sponsor:</b> National Institutes of Health (NIH)