

October 28, 2019

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

Total amount awarded for the month of September was \$9,176,954

Fiscal Year To Date Total: \$21,197,657

Award Title	Amount	Investigators	PI Dept.	Sponsors
"Faculty for the Future" Fellowship from the Schlumberger Foundation - Soybean Pest Resistance	\$46,912	Principal Investigator (PI): Song, Bao-Hua	Biological Sciences	Sponsor: Schlumberger Foundation
2018-2019 UNC Charlotte Collegiate Recovery Community (CRC) Project	\$16,000	Principal Investigator (PI): Dooley, Beau	Center for Wellness Promotion	Sponsor: University of North Carolina System Office (UNC SysOff) Prime Sponsor: NCDHHS Division of Mental Health, Developmental Disabilities and Substance Abuse Services (MHDDSAS)
2019-2020 Charlotte-Mecklenburg Quality of Life Study (County)	\$20,000	Principal Investigator (PI): Simmons, Laura	Urban Institute	Sponsor: Mecklenburg County Managers Office
2019-2020 Coaching, Mentoring, Performance Evaluation and Professional Development for BK Licensed Teachers Employed in Mecklenburg County Universal Pre-K Class	\$420,460	Principal Investigator (PI): Lambert, Richard	Educational Leadership	Sponsor: Mecklenburg County Smart Start Partnership for Children
A multi-method study of firearm-related behavior, entrapment and suicide risk among active duty service member outpatients	\$59,985	Principal Investigator (PI): Cramer, Robert	Public Health Sciences	Sponsor: DOD Department of the Navy (DN)
Bridges Fellow Program: Promoting Undergraduate Success and Graduation in Biomedical Sciences	\$319,354	Principal Investigator (PI): Richardson, Christine Co-PIs: Stearns, Mary; Bates, Tonya	Biological Sciences	Sponsor: National Institutes of Health (NIH)

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Building Healthy Lifestyles from All Directions	\$122,395	Principal Investigator (PI): Racine, Elizabeth	Public Health Sciences	Sponsor: Cabarrus Partnership for Children
Building Leadership for Change through School Immersion: English Language Teachers	\$536,432	Principal Investigator (PI): Ladenheim, Rachel Co-PIs: Davin, Kristin; Kinter, Lauren; Kissau, Scott; Meyer, Sheryl	Intercultural Outreach	Sponsor: Saudi Arabian Cultural Mission (SACM) Prime Sponsor: Kingdom of Saudi Arabia Ministry of Education
CAPER Enhancement - EHP-06-PD - Workshop: Basics of Distribution System Modeling and Power Flow	\$7,150	Principal Investigator (PI): Cecchi, Valentina Co-PI: Chowdhury, Badrul	Electrical and Computer Engineering	Sponsor: Duke Energy Corporation
CAREER: Integrative Approaches to Uncovering Complex Genotype-Phenotype Relationships in High Dimensional Genomics Data	\$114,364	Principal Investigator (PI): Shi, Xinghua	Bioinformatics and Genomics	Sponsor: National Science Foundation (NSF)
CFD Analysis and Optimization of IC Engine Valvetrains	\$16,488	Principal Investigator (PI): Uddin, Mesbah	Mechanical Engineering and Engineering Science	Sponsor: Vaztec Engine Venture, LLC
cGAS-Mediated Glial Responses to DNA Damage: A Pilot Study	\$71,428	Principal Investigator (PI): Richardson, Christine Co-PI: Marriott, Ian	Biological Sciences	Sponsor: National Institutes of Health (NIH)
Characterization of Various Multifunctional Nucleic Acid Nanoparticles and Understanding Their Immunotoxicity	\$348,277	Principal Investigator (PI): Afonin, Kirill	Chemistry	Sponsor: National Institutes of Health (NIH)
Chemoenzymatic Preparation of Tagged Bactoprenyl Diphosphate Linked Sugar Probes for in Vitro and Cellular Elucidation of Complex Bacterial Polysaccharides	\$33,762	Principal Investigator (PI): Troutman, Jerry	Chemistry	Sponsor: National Institutes of Health (NIH)

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CNS Core: Small: Collaborative Research: MAC Layer Failure Control and Avoidance in Cognitive Radio Networks	\$300,000	Principal Investigator (PI): Xie, Jiang	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)
CNS Core: Small: Towards Seamless Mobility in Mobile Edge Computing Networks	\$300,000	Principal Investigator (PI): Xie, Jiang	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)
Coordinated Entry Evaluation	\$91,544	Principal Investigator (PI): Thomas, Marye Co-PIs: Hochwalt, Bridget; Kulkarni, Shanti	Urban Institute	Sponsor: United Way of Central Carolinas
CPS: Small: Worker-in-the-loop Real Time Safety System for Short-Duration Highway Work Zones	\$500,000	Principal Investigator (PI): Tabkhivayghan, Hamed Co-PI: Shoghli, Omidreza	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)
CPS: Synergy: Collaborative Research: Towards Effective and Efficient Sensing-Motion Co-Design of Swarming Cyber-Physical Systems	\$38,316	Principal Investigator (PI): Wang, Pu	Computer Science	Sponsor: University of Texas at Arlington Prime Sponsor: National Science Foundation (NSF)
CRII: SaTC: Image Publication With Differential Privacy	\$174,967	Principal Investigator (PI): Fan, Liyue	Computer Science	Sponsor: National Science Foundation (NSF)
Cross-Platform and Graphical Software Tool for Adaptive LC/MS and GC/MS Metabolomics Data Preprocessing	\$560,045	Principal Investigator (PI): Du, Xiuxia	Bioinformatics and Genomics	Sponsor: National Institutes of Health (NIH)
Evaluating the Effectiveness of Green Dot to Prevent Multiple Forms of Violence Among High School Youth who Have Been Exposed to Family Violence	\$109,296	Principal Investigator (PI): Mennicke, Annelise	School of Social Work	Sponsor: Centers for Disease Control and Prevention (CDC)

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Hybrid Si and SiC based battery inverter	\$225,420	Principal Investigator (PI): Zhao, Tiefu Co-PI: Manjrekar, Madhav; Zhao, Tiefu	Electrical and Computer Engineering	Sponsor: North Carolina State University (NCSSU) Prime Sponsor: Department of Energy (DOE)
Intensive Needs Teachers and Counselor Training Project	\$247,773	Principal Investigator (PI): Anderson, Kelly Co-PI: Foxx, Sejal	Special Education and Child Development	Sponsor: US Department of Education (DOED)
Mechanism of APE1 in DNA Damage Response	\$14,528	Principal Investigator (PI): Yan, Shan	Biological Sciences	Sponsor: National Institutes of Health (NIH)
MPA Public Service Fellowship for Charlotte Works	\$26,361	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Charlotte Works
NC Strategic Partnership	\$93,607	Principal Investigator (PI): Wickliff, Alisa	Center for STEM Education	Sponsor: Battelle Prime Sponsor: DOD DA Research, Development, and Engineering Command (RDECOM)
Near-Roadway and Ambient Air Pollution Exposure and the Gut Microbiome: Implications for Obesity and Insulin Resistance in Adolescence	\$27,720	Principal Investigator (PI): Fodor, Anthony	Bioinformatics and Genomics	Sponsor: University of Colorado Boulder Prime Sponsor: National Institutes of Health (NIH)
Optimization of BioProcessing for Dry Preservation of GVs	\$75,500	Principal Investigator (PI): Elliott, Gloria	Mechanical Engineering and Engineering Science	Sponsor: Smithsonian Institution (SI) Prime Sponsor: National Institutes of Health (NIH)

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Power Electronics Teaching Lab Incorporating WBG Semiconductor Switches and Circuits	\$50,000	Principal Investigator (PI): Parkhideh, Babak Co-PI: Cox, Robert	Electrical and Computer Engineering	Sponsor: North Carolina State University (NCSSU) Prime Sponsor: Department of Energy (DOE)
Process for Surface Finish Measurement in X-Ray Computed Tomography	\$59,599	Principal Investigator (PI): Smith, Stuart	Mechanical Engineering and Engineering Science	Sponsor: DOE Lawrence Livermore National Laboratory (LLNL) Prime Sponsor: Department of Energy (DOE)
Project IMPACT: Inclusion Made Practical for All Children and Teachers	\$356,396	Principal Investigator (PI): Wakeman, Shawnee Co-PI: Pennington, Robert	Special Education and Child Development	Sponsor: US Department of Education (DOED)
RAISE: C-Accel Pilot - Track B2 (National Talent Ecosystem): Smart Platform of Personalized Learning, Assessment and Prediction for Future Career Training of Skilled Workers	\$999,938	Principal Investigator (PI): Lu, Aidong Co-PIs: Fenwick, Abbey; Donovan, Luke; Wang, Pu; Wang, Weichao	Computer Science	Sponsor: National Science Foundation (NSF)
RAISE: C-Accel Pilot: Track A1, Open Knowledge Network: Building the Federalism Data and Advanced Statistics Hub (F-DASH)	\$1,000,000	Principal Investigator (PI): Windett, Jason Co-PIs: Hull, Gordon; Shaikh, Samira; Smith, Stephanie	Political Science and Public Administration	Sponsor: National Science Foundation (NSF)
SBIR: Advanced Nanometer Coordinate Metrology for Freeform and Large Optics	\$31,000	Principal Investigator (PI): Evans, Christopher Co-PI: Morse, Edward	Mechanical Engineering and Engineering Science	Sponsor: OptiPro Systems Prime Sponsor: NASA Goddard Space Flight Center

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SBIR: Chromatic Interferometric Probe	\$25,000	Principal Investigator (PI): Evans, Christopher Co-PI: Morse, Edward	Mechanical Engineering and Engineering Science	Sponsor: OptiPro Systems Prime Sponsor: NASA Goddard Space Flight Center
SBIR: Fringe Projection for Metal Additive Manufacturing (Phase II)	\$180,000	Principal Investigator (PI): Falaggis, Konstantinos	Mechanical Engineering and Engineering Science	Sponsor: Universal Technology Corporation Prime Sponsor: National Aeronautics and Space Administration (NASA)
Secondary Transition Assessment: Development and Validation of a Student and Teacher College and Career Readiness Measure	\$57,833	Principal Investigator (PI): Mazzotti, Valerie	Special Education and Child Development	Sponsor: University of Connecticut (UCONN) Prime Sponsor: US Department of Education (DOED)
Securing American Manufacturing (SAM) - Task Order GFY20 to BOA IPF 17-0176	\$403,429	Principal Investigator (PI): Browne, Aidan Co-PIs: Moyer, Thomas; Williams, Wesley;	Engineering Technology and Construction Management	Sponsor: Consolidated Nuclear Security, LLC (CNS) Prime Sponsor: Department of Energy (DOE)
Shared Administrative Support Funding for NSF IUCRC Phase II Center for Metamaterials	\$30,091	Principal Investigator (PI): Aggarwal, Ishwar	Physics and Optical Science	Sponsor: Clarkson University Prime Sponsor: National Science Foundation (NSF)
Standard: Establishing Norms of Data Ethics in Citizen Science	\$9,412	Principal Investigator (PI): Rasmussen, Lisa	Philosophy	Sponsor: North Carolina State University (NCSU) Prime Sponsor: National Science Foundation (NSF)
Support for Publishing Fumie Kato's Book	\$3,400	Principal Investigator (PI): Kato, Fumie	Languages and Culture Studies	Sponsor: Japan Foundation

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Tailoring Mg-Alloy System Through Composition/Microstructure/Severe Plastic Deformation for Army Extreme Dynamic Environment Applications	\$9,651	Principal Investigator (PI): Wei, Qiuming	Mechanical Engineering and Engineering Science	Sponsor: Johns Hopkins University Prime Sponsor: DOD DA Army Research Laboratory (ARL)
The Efficacy of Using Learning Assistants in Undergraduate Higher Education to Improve High DFW Rates	\$71,999	Principal Investigator (PI): Westine, Carl	Educational Leadership	Sponsor: University of North Carolina System Office (UNC SysOff) Prime Sponsor: Laura and John Arnold Foundation
The Role of the Microbiome in Metabolic Osteoarthritis	\$34,919	Principal Investigator (PI): Fodor, Anthony	Bioinformatics Research Center	Sponsor: University of North Carolina at Chapel Hill (UNC-CH) Prime Sponsor: Arthritis Foundation
UNC Charlotte PhD Program in Special Education with a Specialty in Multi-Tiered Interventions	\$125,002	Principal Investigator (PI): Wood, Charles Co-PI: Lo, Ya-yu	Special Education and Child Development	Sponsor: US Department of Education (DOED)
UNC Charlotte Teacher Residency Program	\$566,569	Principal Investigator (PI): Petty, Teresa Co-PIs: McCulloch, Allison; Polly, Andrew; McIntyre, Ellen; Fitchett, Paul; Kissau, Scott	Deans Office College of Education	Sponsor: US Department of Education (DOED)
UNC Charlotte's PhD Program in Special Education	\$244,632	Principal Investigator (PI): Pennington, Robert Co-PIs: Campbell-Whatley, Kristen; Mazzotti, Valerie	Special Education and Child Development	Sponsor: US Department of Education (DOED)