

November 19, 2018 – Revised Report, December 19, 2018

The Office of Research and Economic Development is pleased to announce awards received by UNC Charlotte Researchers in the month of October, 2018

Total amount awarded for the month of October was \$4,455,519

Fiscal Year To Date Total: \$25,337,134

Award Title	Amount	Investigators	PI Dept.	Sponsors
2016-2017 Charlotte-Mecklenburg Quality of Life Study (City)	\$56,000	Principal Investigator (PI): Simmons, Laura Co-PI: Zager, Kathryn	Urban Institute	Sponsor: City of Charlotte
Advanced modeling and simulation of thermal kinetics in additive manufacturing	\$598,562	Principal Investigator (PI): Schmitz, Tony Co-PIs: El-Ghannam, Ahmed; Cherukuri, Harischandra	Mechanical Engineering and Engineering Science	Sponsor: DOD DA Army Research Office (ARO)
Analyze adsorbable fluorine contents in samples from CDM Smith/APTIM	\$600	Principal Investigator (PI): Sun, Mei	Civil and Environmental Engineering	Sponsor: CDM Smith Prime Sponsor: Department of Defense (DOD)
CERDEC Energy Management System Technical Support	\$42,994	Principal Investigator (PI): Mazzola, Michael	Energy Production and Infrastructure Center	Sponsor: Hyperion Technology Group, Inc Prime Sponsor: CACI Technologies, Inc.
CIS GAANN Fellows	\$248,750	Principal Investigator (PI): Shin, Min Co-PIs: Shehab, Mohamed; Ras, Zbigniew	Computer Science	Sponsor: US Department of Education (DOED)
Computational Model for Spacecraft/Habitat Volume	\$25,000	Principal Investigator (PI): Hsiang, Simon Co-PI: Lim, Churlzu	Systems Engineering and Engineering Management	Sponsor: NASA Johnson Space Center
Construction of in vitro platforms: 3D co-culture of neuron-astrocyte- microglia to study pathological pathways and biosensor to discover causes of dementia	\$132,494	Principal Investigator (PI): Cho, Hansang	Mechanical Engineering and Engineering Science	Sponsor: Korea Institute of Science Technology (KIST)

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Cross-Platform and Graphical Software Tool for Adaptive LC/MS and GC/MS Metabolomics Data Preprocessing	\$347,796	Principal Investigator (PI): Du, Xiuxia Co-PI: Smirnov, Aleksandr	Bioinformatics and Genomics	Sponsor: National Institutes of Health (NIH)
Deciphering Helicobacter pylori's glycode: uncovering & harnessing drug targets	\$36,232	Principal Investigator (PI): Troutman, Jerry	Chemistry	Sponsor: Bowdoin College Prime Sponsor: National Institutes of Health (NIH)
Development and Operation of the Web GIS-enabled Data Management System for the Santee Experimental Forest	\$8,800	Principal Investigator (PI): Tang, Wenwu	Geography and Earth Sciences	Sponsor: USDA Forest Service Southern Research Station
DMD Advanced Visualization and Management of Data	\$23,111	Principal Investigator (PI): Cho, Isaac Co-PIs: Cecchi, Valentina; Wartell, Zachary	Computer Science	Sponsor: Electric Power Research Institute (EPRI)
Duke Energy SOW 26: Protection and Control	\$121,773	Principal Investigator (PI): Manjrekar, Madhav Co-PIs: Shoubaki, Ehab; Cecchi, Valentina	Electrical and Computer Engineering	Sponsor: Duke Energy Corporation
Engage With Age: A partnership between Southminster, UNC Charlotte and Renaissance West Community Initiative to promote Successful Aging	\$200,833	Principal Investigator (PI): Montoro-Rodriguez, Julian	Deans Office College of Health and Human Services	Sponsor: Southminster Inc.
Extended Development, Verification, and Validation of a Blast Dynamics Simulator for Post-Blast Forensic Investigations	\$46,526	Principal Investigator (PI): Whelan, Matthew	Civil and Environmental Engineering	Sponsor: DOJ National Institute of Justice (NIJ)
Fabrication of large space-qualified reflective freeform optics for imaging systems	\$144,295	Principal Investigator (PI): Davies, Matthew Co-PI: Owen, Joseph	Mechanical Engineering and Engineering Science	Sponsor: University of Rochester Prime Sponsor: DOD DAF Air Force Research Laboratory (AFRL)

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Genomic Dissecting Natural Variation of Important Phytoalexins in Wild Soybeans	\$56,807	Principal Investigator (PI): Song, Bao-Hua	Biological Sciences	Sponsor: NCSU Plant Pathways Elucidation Project (P2EP)
Implementation of Performance Engineered Concrete Mixtures	\$69,942	Principal Investigator (PI): Cavalline, Tara Co-PI: Tempest, Brett	Engineering Technology and Construction Management	Sponsor: North Carolina Department of Transportation (NCDOT)
Integration of Current and Previous P2EP data into the P2EP Knowledgebase	\$35,426	Principal Investigator (PI): Reid, Robert Co-PI: Jay, Jeremy	Bioinformatics and Genomics	Sponsor: NCSU Plant Pathways Elucidation Project (P2EP)
Knight-Niantic Fellows Program 2018 - Charlotte Events Planning	\$15,000	Principal Investigator (PI): Lee, Ming-Chun	School of Architecture	Sponsor: The Miami Foundation
Marginal Social Groups and Modernity: Bridging Historical Scholarship on Asia in Japan, Europe, and the United States	\$36,425	Principal Investigator (PI): Ehlers, Maren	History	Sponsor: Osaka City University Prime Sponsor: Japan Society for the Promotion of Science
Metrology of large space-qualified reflective freeform optics for TMA systems	\$144,295	Principal Investigator (PI): Evans, Christopher	Mechanical Engineering and Engineering Science	Sponsor: University of Rochester Prime Sponsor: National Science Foundation (NSF)
Parent Empowerment (2018-2019)	\$15,000	Principal Investigator (PI): Gavarkavich, Diane	Urban Institute	Sponsor: ScherMCo
Project Early Childhood Special Education Leaders (ECSEL)	\$250,000	Principal Investigator (PI): Smith, Jane Co-PI: McCorkle, Laura	Special Education and Child Development	Sponsor: US Department of Education (DOED)
Project IMPACT: Inclusion Made Practical for All Children and Teachers	\$340,408	Principal Investigator (PI): Wakeman, Shawnee Co-PI: Pennington, Robert	Special Education and Child Development	Sponsor: US Department of Education (DOED)

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Research on multiphysical modeling methodology of lithium-ion battery	\$151,000	Principal Investigator (PI): Xu, Jun	Mechanical Engineering and Engineering Science	Sponsor: Beijing Ivy-cirrus Science Technology Co. Ltd.
SBIR: GoWrite Duns (028855716)	\$25,657	Principal Investigator (PI): Pennington, Robert	Special Education and Child Development	Sponsor: Attainment Company Prime Sponsor: US Department of Education (DOED)
Solution for Curbside-Charging Electric Vehicles for Planned Urban Growth	\$426,181	Principal Investigator (PI): Mazzola, Michael Co-PIs: Young, David; Thill, Jean-Claude; Manjrekar, Madhav; Cox, Robert	Energy Production and Infrastructure Center	Sponsor: Department of Energy (DOE)
STTR: IR Scatter of nonlinear optical surfaces.	\$46,048	Principal Investigator (PI): Poutous, Menelaos	Physics and Optical Science	Sponsor: Nanohmics, Inc. Prime Sponsor: Department of Defense (DOD)
Sustainability of PROVIDER 360 Phase V	\$50,376	Principal Investigator (PI): Richardson, Sonyia	School of Social Work	Sponsor: Cardinal Innovations Healthcare Solutions
The Vaginal Microbiome and Racial Disparity in Preterm Delivery	\$15,510	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)
Translating Evidence to Support Transitions: Improving Outcomes of Youth in Transition with Psychiatric Disabilities by Use and Adoption of Best Practice Transition Planning	\$20,000	Principal Investigator (PI): Test, David	Special Education and Child Development	Sponsor: University of Massachusetts Medical School Prime Sponsor: Department of Health and Human Services (DHHS)

Award Title	Amount	Investigators	PI Dept.	Sponsors
UNC Charlotte PhD Program in Special Education with a Specialty in Multi-tiered Interventions	\$124,998	Principal Investigator (PI): Wood, Charles Co-PI: Lo, Ya-yu	Special Education and Child Development	Sponsor: US Department of Education (DOED)
What Feeds Firestorms of Emotion? Emotion Regulation, Emotion Contagion, and Collective Behavior in Socio-Political Events	\$598,680	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)