

September 18, 2020

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

Total amount awarded for the month of August was \$4,642,855

Fiscal Year To Date Total: \$9,284,530

Award Title	Amount	Investigators	PI Dept.	Sponsors
2016-2017 Charlotte-Mecklenburg Quality of Life Study (City)	\$40,000	Principal Investigator (PI): Zager, Kathryn	Urban Institute	Sponsor: City of Charlotte
2020-2021 Coaching, Mentoring, Performance Evaluation and Professional Development for BK Licensed Teachers Employed in Mecklenburg County Universal Pre-K Class	\$537,781	Principal Investigator (PI): Lambert, Richard	Educational Leadership	Sponsor: Mecklenburg County Smart Start Partnership for Children
2020-2021 UNC Charlotte CRC Project	\$60,000	Principal Investigator (PI): Dooley, Beau	Center for Wellness Promotion	Sponsor: University of North Carolina System Office (UNC SysOff) Prime Sponsor: Substance Abuse and Mental Health Services Administration (SAMHSA)
5E Model Professional Development in Science Education for Special Educators	\$83,608	Principal Investigator (PI): Wakeman, Shawnee Co-PI: Pugalee, David	Special Education and Child Development	Sponsor: University of Kansas Prime Sponsor: US Department of Education (DOED)
An Air Depolluting System for Indoor VOC Reduction	\$50,000	Principal Investigator (PI): Wu, Chengde	School of Architecture	Sponsor: National Science Foundation (NSF)
CAREER: Programming the Existing and Emerging Memory Systems for Extreme-Scale Parallel Performance	\$114,172	Principal Investigator (PI): Yan, Yonghong	Computer Science	Sponsor: National Science Foundation (NSF)
CGAS-Mediated Glial Responses to DNA Damage: A Pilot Study	\$71,204	Principal Investigator (PI): Richardson, Christine Co-PI: Marriott, Ian	Biological Sciences	Sponsor: National Institutes of Health (NIH)

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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)
Charlotte Biology and Biotechnology EG-AY20-21	\$4,500	Principal Investigator (PI): Yan, Shan	Biological Sciences	Sponsor: North Carolina Biotechnology Center (NCBC)
Charlotte Venture Challenge Exchange Group	\$1,625	Principal Investigator (PI): Collins, Devin	Ventureprise	Sponsor: North Carolina Biotechnology Center (NCBC)
CHEM101 (North Carolina Research Campus)	\$3,000	Principal Investigator (PI): Brouwer, Cory	Bioinformatics and Genomics	Sponsor: North Carolina Biotechnology Center (NCBC)
Collaborative Research: Exploiting Upper Layer Spectrum Sensing and Directionality to Access the Hidden Available Spectrum	\$220,000	Principal Investigator (PI): Xie, Jiang	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)
Collaborative Research: SaTC: CORE: Medium: DeepDetect - A Self-Learning and Self-Evolving Detector that Prevents the Deepfake Crisis for National Security	\$611,811	Principal Investigator (PI): Fan, Jianping	Computer Science	Sponsor: National Science Foundation (NSF)
Collaborative: The STARS Aligned: How the STARS Computing Corps Broadens Participation in Computing	\$105,104	Principal Investigator (PI): Rorrer, Audrey	Computer Science	Sponsor: National Science Foundation (NSF)
Cross-Platform and Graphical Software Tool for Adaptive LC/MS and GC/MS Metabolomics Data Preprocessing	\$338,976	Principal Investigator (PI): Du, Xiuxia	Bioinformatics and Genomics	Sponsor: National Institutes of Health (NIH)

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Design and Development of a Novel Parallel-Stream Counter-Rotating Darrieus Turbine System for Offshore Energy Extraction in Coastal North Carolina	\$75,561	Principal Investigator (PI): Hewlin, Rodward Co-PI: Williams, Wesley	Engineering Technology and Construction Management	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Federated Architecture for Secure and Transactive Distributed Energy Resource Management Solutions (FAST-DERMS)	\$65,000	Principal Investigator (PI): Chowdhury, Badrul Co-PI: Kamalasadan, Sukumar	Electrical and Computer Engineering	Sponsor: DOE National Renewable Energy Laboratory (NREL) Prime Sponsor: Department of Energy (DOE)
Human Health Exposure Analysis Resource (HHEAR): Untargeted Exposure Analysis Laboratories	\$354,291	Principal Investigator (PI): Du, Xiuxia	Bioinformatics and Genomics	Sponsor: Research Triangle Institute (RTI International) Prime Sponsor: National Institutes of Health (NIH)
Identifying Collateral Sensitivity Networks and Associated Genetic Markers in Burkholderia Species	\$25,765	Principal Investigator (PI): Steck, Todd Co-PI: Sung, Shian	Biological Sciences	Sponsor: Cystic Fibrosis Foundation
Identifying Microbial, Epithelial and Immune Cell Interactions that Mediate Mucosal Homeostasis and Determine IBD Phenotypes	\$59,500	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)
Implementing a Social-Ecological Suicide Prevention Program (SESPP) at Old Dominion University (ODU)	\$5,000	Principal Investigator (PI): Cramer, Robert	Public Health Sciences	Sponsor: Old Dominion University Prime Sponsor: Substance Abuse and Mental Health Services Administration (SAMHSA)
Innovative Framework for Electric Power Engineering Curriculum Based on Situative Pedagogy and Data-Driven Analytical Approaches	\$179,964	Principal Investigator (PI): Cecchi, Valentina Co-PIs: Smith-Orr, Courtney; Kamalasadan, Sukumar	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)

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Integration of Marine Renewable Generation into Power Grid and Value Proposition Development for Economics and Resilience	\$50,044	Principal Investigator (PI): Bai, Linquan	Systems Engineering and Engineering Management	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Intelligent Power Stages	\$50,000	Principal Investigator (PI): Parkhideh, Babak Co-PIs: LeClair, Andrew; Gafford, James	Electrical and Computer Engineering	Sponsor: DOE Oak Ridge National Laboratories Prime Sponsor: Department of Energy (DOE)
Internal Wave Generation from Ocean Current Turbine Operation	\$53,248	Principal Investigator (PI): Ramaprabhu, Praveen	Mechanical Engineering and Engineering Science	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Models for Equitable Minority Inclusion in Institutional Research	\$3,400	Principal Investigator (PI): Hull, Gordon Co-PI: Rasmussen, Lisa	Philosophy	Sponsor: North Carolina Biotechnology Center (NCBC)
MPA Public Service Fellowship for Charlotte Works	\$21,680	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Charlotte Works
MPA Public Service Fellowship with Mecklenburg County Finance Department	\$20,200	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Mecklenburg County Finance Department
MPA Public Service Fellowship with the Mayfield Memorial Community Development Corporation	\$22,526	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Mayfield Memorial Community Development Corporation
NC-49 Widening Project Study: Impacts, Alternatives, and Future Visions	\$25,000	Principal Investigator (PI): Lee, Ming-Chun Co-PIs: Papanikolaou, Dimitrios; Pulugurtha, Srinivas	School of Architecture	Sponsor: University City Partners

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NSF Center for Metamaterials Phase II	\$45,000	Principal Investigator (PI): Aggarwal, Ishwar Co-PI: Hofmann, Tino	Physics and Optical Science	Sponsor: National Science Foundation (NSF)
Optical Diagnostic Platform for Acute Phase COVID-19 Detection	\$19,987	Principal Investigator (PI): De Silva Indrasekara, Agampodi	Chemistry	Sponsor: North Carolina Biotechnology Center (NCBC)
Performance Testing of an Integrated Magnetic Power Take-Off: DoE Cost Share Year 2	\$18,766	Principal Investigator (PI): Williams, Wesley	Engineering Technology and Construction Management	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Phase II IUCRC UNC Charlotte Site: Center for Visual and Decision Informatics (CVDI)	\$54,126	Principal Investigator (PI): Dou, Wenwen	Computer Science	Sponsor: National Science Foundation (NSF)
Process for Surface Finish Measurement in X-Ray Computed Tomography	\$15,958	Principal Investigator (PI): Smith, Stuart	Mechanical Engineering and Engineering Science	Sponsor: DOE Lawrence Livermore National Laboratory (LLNL) Prime Sponsor: Department of Energy (DOE)
PROMoting Geoscience Research, Education, and Success (PROGRESS)	\$160,889	Principal Investigator (PI): Clinton, Sandra	Geography and Earth Sciences	Sponsor: National Science Foundation (NSF)
Public Service Fellowship Arts and Science Council	\$22,525	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Arts and Science Council (ASC)
Recycling Options for Plastic Packaging Waste: Phase 1, Literature Review and Proof of Concept	\$18,070	Principal Investigator (PI): Tempest, Brett	Civil and Environmental Engineering	Sponsor: Sealed Air Corporation

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Senior Design Program Fee Funding for Small and Disadvantage Business Participation	\$50,000	Principal Investigator (PI): Hartman, James	Student Development and Success	Sponsor: North Carolina State University (NCSU) Prime Sponsor: Department of Commerce (DOC) National Institute of Standards and Technology (NIST)
Shaping Experiential Research for Veteran Education (SERVE)	\$96,867	Principal Investigator (PI): Dahlberg, Jerry	Mechanical Engineering and Engineering Science	Sponsor: University of Tennessee at Knoxville (UTK) Prime Sponsor: DOD Department of Navy (DN) Office of Naval Research (ONR)
Standard: Establishing Norms of Data Ethics in Citizen Science	\$6,025	Principal Investigator (PI): Rasmussen, Lisa	Philosophy	Sponsor: North Carolina State University (NCSU) Prime Sponsor: National Science Foundation (NSF)
Statistical Methods for Efficacy Trials of Vaccines and Monoclonal Antibodies Against Genetically-Diverse Pathogens	\$99,997	Principal Investigator (PI): Sun, Yanqing	Mathematics and Statistics	Sponsor: Fred Hutchinson Cancer Research Center Prime Sponsor: National Institutes of Health (NIH)
Sugar Creek Charter School TIMS Computerized Bus Routing Project 2020-2021	\$1,882	Principal Investigator (PI): York, Phillip	Urban Institute	Sponsor: Sugar Creek Charter School
Universal Power Gateway for Tactical Microgrids	\$160,621	Principal Investigator (PI): Gafford, James	Energy Production and Infrastructure Center	Sponsor: Hyperion Technology Group, Inc Prime Sponsor: Department of Defense (DOD)
University of North Carolina at Charlotte Culturally Responsive Teaching (UNCC CResT)	\$210,906	Principal Investigator (PI): Fernandes, Anthony Co-PI: Pugalee, David	Mathematics and Statistics	Sponsor: National Science Foundation (NSF)

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Ventureprise Charlotte Launch Program	\$59,999	Principal Investigator (PI): Collins, Devin	Ventureprise	Sponsor: National Science Foundation (NSF)