

June 15, 2020

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

Total amount awarded for the month of May was \$3,433,209

Fiscal Year To Date Total: \$43,818,132

Award Title	Amount	Investigators	PI Dept.	Sponsors
1799-TRP: Validation of Extrapolation of Performance Rating Test Results for Small Energy Exchangers to Large Exchangers	\$60,149	Principal Investigator (PI): Wang, Weimin	Engineering Technology and Construction Management	Sponsor: Intertek Group PLC Prime Sponsor: American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
Accelerating Development of Vitrification Compositions and Methodology via Quantification and Enhancement of Cryoprotective Solution Penetration Into Tissues	\$55,223	Principal Investigator (PI): Elliott, Gloria	Mechanical Engineering and Engineering Science	Sponsor: Hirsch Foundation
Active Cyber Deception Against Malware	\$140,000	Principal Investigator (PI): Al-Shaer, Ehab Co-PI: Wei, Jinpeng	Software and Information Systems	Sponsor: DOD Department of Navy (DN) Office of Naval Research (ONR)
Archival Visit to UC San Diego to Research Theodor Geisel's Linguistic Expertise	\$1,500	Principal Investigator (PI): Thiede, Ralf	English	Sponsor: Children's Literature Association (ChLA)
Battery Damage and Thermal Heating Under Impact and/or Crash Conditions	\$50,000	Principal Investigator (PI): Xu, Jun	Mechanical Engineering and Engineering Science	Sponsor: Altair Engineering, Inc.
CAREER: Gentrification in Migrant Foodscapes	\$260,000	Principal Investigator (PI): Hammelman, Colleen	Geography and Earth Sciences	Sponsor: National Science Foundation (NSF)
CAREER: Stochastic Forward and Inverse Problems Involving Dynamical Systems	\$85,801	Principal Investigator (PI): McGoff, Kevin	Mathematics and Statistics	Sponsor: National Science Foundation (NSF)

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Collaborative: Carolina Cyber Defender Scholarship	\$542,888	Principal Investigator (PI): Chu, Bei-Tseng Co-PIs: Al-Shaer, Ehab; Lipford, Heather; Shehab, Mohamed; Wang, Weichao; Tolone, William	Software and Information Systems	Sponsor: National Science Foundation (NSF)
Compliance of Regulatory Inspection and Testing Requirements Using Non-Destructive Evaluation (NDE)	\$31,932	Principal Investigator (PI): Cox, Robert Co-PIs: Whelan, Matthew; Mazzola, Michael; Park, Youngjin; Khire, Khire	Energy Production and Infrastructure Center	Sponsor: GE Hitachi Nuclear Energy
Developing a Biomarker Panel to Assess Choline Nutritional Status	\$7,752	Principal Investigator (PI): Sha, Wei	Bioinformatics and Genomics	Sponsor: University of North Carolina at Chapel Hill (UNC-CH) Prime Sponsor: National Institutes of Health (NIH)
Environmental and Genetic Determinants of Dynamics in Gene Body Methylation	\$424,639	Principal Investigator (PI): Reitzel, Adam	Biological Sciences	Sponsor: National Institutes of Health (NIH)
GA: Assist the City of Charlotte's Planning, Design and Development Department with the Development of the Charlotte Future 2040 Comprehensive Plan	\$5,649	Principal Investigator (PI): Thomas, Deborah	Geography and Earth Sciences	Sponsor: City of Charlotte Planning, Design Development Department
Graduate Assistantship with Global Alliance for Behavioral Health and Social Justice	\$55,766	Principal Investigator (PI): Kilmer, Ryan	Psychological Science	Sponsor: Global Alliance for Behavioral Health and Social Justice
Health Policy Training to Address Inequalities Driven by Artificial Intelligence and Climate Change	\$165,000	Principal Investigator (PI): Dulin, Michael	Deans Office College of Health and Human Services	Sponsor: Robert Wood Johnson Foundation (RWJF)

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Image Quality Assessment for Low Light Collision Scene Reconstruction Using UAVs	\$28,741	Principal Investigator (PI): Akella, Srinivas	Computer Science	Sponsor: Research Triangle Institute (RTI International) Prime Sponsor: Department of Homeland Security (DHS)
Liberal Religion and Race in America	\$50,000	Principal Investigator (PI): Cameron, Christopher	History	Sponsor: American Council of Learned Societies (ACLS)
Louis Stokes STEM Pathways and Research Alliance: NCLSAMP for Minority Participation	\$95,150	Principal Investigator (PI): Brown, Banita	Deans Office College of Liberal Arts and Sciences	Sponsor: North Carolina Agricultural and Technical State University (NCAT) Prime Sponsor: National Science Foundation (NSF)
Mental Health and Resilience Among LGBTQ+ College Students with Disabilities	\$2,520	Principal Investigator (PI): Miller, Ryan	Educational Leadership	Sponsor: University of Michigan Ann Arbor
MLWiNS: Democratizing AI Through Multi-Hop Federated Learning Over-the-Air	\$446,667	Principal Investigator (PI): Wang, Pu Co-PIs: Chen, Chen; Lee, Minwoo; Dorodchi, Mohsen	Computer Science	Sponsor: National Science Foundation (NSF)
MLWiNS: Democratizing AI through Multi-Hop Federated Learning Over-the-Air	\$74,444	Principal Investigator (PI): Wang, Pu Co-PIs: Chen, Chen; Lee, Minwoo; Dorodchi, Mohsen	Computer Science	Sponsor: Intel Corporation
MPA Public Service Fellowship with Rebuilding Together of Greater Charlotte	\$22,992	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Rebuilding Together of Greater Charlotte
Multi-Layer Resilient Active Cyber Defense	\$49,459	Principal Investigator (PI): Al-Shaer, Ehab	Software and Information Systems	Sponsor: DOD Department of Army (DA) Army Research Office (ARO)

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Multiphysics Cylindrical Battery Modeling Upon Mechanical Abusive Loading	\$40,000	Principal Investigator (PI): Xu, Jun	Mechanical Engineering and Engineering Science	Sponsor: Dassault Systemes Simulia Corp
NCDOT Center of Excellence on Connected and Autonomous Vehicles	\$31,180	Principal Investigator (PI): Fan, Wei	Civil and Environmental Engineering	Sponsor: North Carolina Agricultural and Technical State University (NCAT) Prime Sponsor: North Carolina Department of Transportation (NCDOT)
Neurotropic Viral Infection in CNS Aging and Alzheimer's Disease	\$244,870	Principal Investigator (PI): Funk, Kristen	Biological Sciences	Sponsor: National Institutes of Health (NIH)
Phase 2 NCAFC Recruitment and Retention Study	\$39,951	Principal Investigator (PI): Kimble, Jeffrey	Engineering Technology and Construction Management	Sponsor: International Association of Fire Chiefs (IAFC) Prime Sponsor: Federal Emergency Management Agency (FEMA)
Phase II CfM Industry Membership Funds	\$45,000	Principal Investigator (PI): Aggarwal, Ishwar	Physics and Optical Science	Sponsor: All Other Business and Industry
Phase II CfM Industry Membership Funds	\$25,000	Principal Investigator (PI): Aggarwal, Ishwar	Physics and Optical Science	Sponsor: All Other Business and Industry
Phase II I/UCRC UNC Charlotte: Center for Freeform Optics	\$5,100	Principal Investigator (PI): Suleski, Thomas	Physics and Optical Science	Sponsor: National Science Foundation (NSF)
Phase II IUCRC UNC Charlotte Site: Center for Visual and Decision Informatics (CVDI)	\$97,984	Principal Investigator (PI): Hadzikadic, Mirsad Co-PIs: Thill, Jean-Claude; Shehab, Mohamed; Dou, Wenwen; Ras, Zbigniew	Software and Information Systems	Sponsor: National Science Foundation (NSF)

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Public Service Fellowship Arts and Science Council	\$13,113	Principal Investigator (PI): Barth, Thomas	Political Science and Public Administration	Sponsor: Arts and Science Council (ASC)
Quantifying California Municipal Wastewater Discharge Contributions to Streams for Pesticide Source Modeling	\$149,916	Principal Investigator (PI): Rice, Jacelyn	Engineering Technology and Construction Management	Sponsor: California Department of Pesticide Regulations Prime Sponsor: United States Environmental Protection Agency (EPA)
Rituals, Runaways, and the Haitian Revolution: African Diaspora Collective Action	\$1,750	Principal Investigator (PI): Eddins, Crystal	Africana Studies	Sponsor: The Consortium in Latin American and Caribbean Studies at the University of North Carolina at Chapel Hill and Duke University Prime Sponsor: US Department of Education (DOED)
SCH: INT: Adaptive Partnership for the Robotic Treatment of Autism	\$7,127	Principal Investigator (PI): Pennington, Robert	Special Education and Child Development	Sponsor: University of Louisville Research Foundation, Inc. Prime Sponsor: National Science Foundation (NSF)
Spencer Foundation Mentor Award	\$10,000	Principal Investigator (PI): Lewis, Chance	Middle, Secondary and K-12 Education	Sponsor: Spencer Foundation
Studying Successful Doctoral Students in Mathematics from Underrepresented Groups	\$21,785	Principal Investigator (PI): Westine, Carl	Educational Leadership	Sponsor: Iowa State University (ISU) Prime Sponsor: National Science Foundation (NSF)
Superresolution Imaging with Wide Field-of-View Through Perfectly Ordered Arrays of High-Index Microspheres Embedded in Coverslips	\$20,000	Principal Investigator (PI): Astratov, Vasily	Physics and Optical Science	Sponsor: North Carolina Biotechnology Center (NCBC)

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Take a Timeout: A Skills-Based Podcast Program for Coping with Mental Health Challenges as a Collegiate Athlete	\$20,000	Principal Investigator (PI): Dahl, Alicia	Public Health Sciences	Sponsor: National Collegiate Athletic Association (NCAA)
UNC Charlotte Get Out The Count Census Support Proposal	\$2,500	Principal Investigator (PI): Johnson, Tamara	Urban Research & Comm Engagement	Sponsor: National League of Cities
Wholesome Wave Project Charlotte	\$1,661	Principal Investigator (PI): Bellar, David Co-PI: Moore-Harrison, Trudy	Kinesiology	Sponsor: Wholesome Wave