

March 25, 2021 (revised)

The Office of Research and Economic Development is pleased to announce awards received by UNC Charlotte Researchers in the month of February 2021.

Total amount awarded for the month of February was \$3,636,272

Fiscal Year To Date Total:\$44,347,706

Award Title	Amount	Investigators	PI Dept.	Sponsors
2020-2021 Governor's Institute on Substance Abuse Scholarships	\$10,000	Principal Investigator (PI): Lassiter, Pamela	Counseling	Sponsor: Governors Institute on Alcohol and Substance Abuse Prime Sponsor: Substance Abuse and Mental Health Services Administration (SAMHSA)
A Contactless, Non-Intrusive, Continuous Health Monitoring System Towards Healthy Built Environment	\$50,000	Principal Investigator (PI): Azarbayjani, Mona Co-PI: Tabkhivayghan, Hamed	School of Architecture	Sponsor: National Science Foundation (NSF)
Bystander Intervention for Problematic Alcohol Use Measure (BIPAUM) to Reduce Risky Drinking among Diverse College Students	\$407,249	Principal Investigator (PI): Montanaro, Erika Co-PI: Alyssa; Mennicke	Psychological Science	Sponsor: National Institutes of Health (NIH)
CAREER: Smart Imaging and Metrology Enabled by Liquid Crystals	\$401,334	Principal Investigator (PI): Porras-Aguilar, Rosario	Physics and Optical Science	Sponsor: National Science Foundation (NSF)
Charlotte-Mecklenburg Housing Instability & Homelessness Reports FY21	\$35,000	Principal Investigator (PI): Anderson, Bridget	Urban Institute	Sponsor: Mecklenburg County Community Support Services
Collaborative Research: Engineered Water Repellency to Mitigate Frost Susceptibility: Decoupling Osmotic and Matric Potential	\$67,062	Principal Investigator (PI): Daniels, John	Civil and Environmental Engineering	Sponsor: National Science Foundation (NSF)

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Cost-Effective Rapid Detection of SARS-CoV-2 from Wastewater Using Moore Swabs	\$16,450	Principal Investigator (PI): Schlueter, Jessica Co-PI: Gibas, Cynthia; Lambirth, Kevin; Munir, Mariya	Bioinformatics and Genomics	Sponsor: North Carolina Biotechnology Center (NCBC)
COVID Response: Expansion of Virtual Support for College Students Impacted by COVID-19	\$125,181	Principal Investigator (PI): Rodgers, Kimberly	University Center for Academic Excellence	Sponsor: University of North Carolina System Office (UNC SysOff) Prime Sponsor: Michael and Susan Dell Foundation
Data Mining & Transfer Learning for Modeling COVID	\$9,815	Principal Investigator (PI): Chen, Shi	Public Health Sciences	Sponsor: University of Pittsburgh Prime Sponsor: National Institute of Health (NIH) National Institute of General Medical Sciences (NIGMS)
Domain Specific Computing Enabling Real-Time AI Inference on the Edge for Expeditionary Cyber Missions	\$128,144	Principal Investigator (PI): Tabkhivayghan, Hamed	Electrical and Computer Engineering	Sponsor: Northeastern University Prime Sponsor: DOD Department of Navy (DN) Office of Naval Research (ONR)
Dynamic Illumination Optics	\$69,103	Principal Investigator (PI): Suleski, Thomas Co-PI: Davies, Matthew	Physics and Optical Science	Sponsor: University of Rochester
ETIPP Island and Remote Community Stakeholder Engagement Regional Project Partners	\$25,000	Principal Investigator (PI): Cox, Robert	Energy Production and Infrastructure Center	Sponsor: East Carolina University (ECU) Prime Sponsor: Department of Energy (DOE) National Renewable Energy Laboratory (NREL)

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High-Speed Manufacturing of Monolithic Silicon Carbide Freeform Imaging Systems	\$53,130	Principal Investigator (PI): Davies, Matthew Co-PI: Falaggis, Konstantinos	Mechanical Engineering and Engineering Science	Sponsor: University of Rochester Prime Sponsor: National Science Foundation (NSF)
IIBR Informatics: Accurate Assessment of Protein-DNA Complex Models and Applications	\$673,715	Principal Investigator (PI): Guo, Jun-tao	Bioinformatics and Genomics	Sponsor: National Science Foundation (NSF)
In-Situ Metrology with 3D-Display Deflectometry	\$56,437	Principal Investigator (PI): Falaggis, Konstantinos Co-PI: Davies, Matthew; Porras-Aguilar, Rosario	Mechanical Engineering and Engineering Science	Sponsor: University of Rochester Prime Sponsor: National Science Foundation (NSF)
Intelligent Routing of Multiple UAVs for Power Line Inspection	\$16,000	Principal Investigator (PI): Akella, Srinivas	Computer Science	Sponsor: National Science Foundation (NSF)
Knowledge Graph-Embeddings Based Explainable Artificial Intelligence for Enterprise Performance Management	\$50,000	Principal Investigator (PI): Chen, Zitian Co-PI: Dou, Wenwen	Management	Sponsor: National Science Foundation (NSF)
Mechanism of APE1 in DNA Damage Response	\$21,125	Principal Investigator (PI): Yan, Shan	Biological Sciences	Sponsor: National Institutes of Health (NIH):
Mecklenburg ReCAST Community Trauma Program Evaluation	\$148,598	Principal Investigator (PI): Kulkarni, Shanti Co-PI: Waites Spellman, Cheryl; Crocker, Tianca	School of Social Work	Sponsor: Charlotte Mecklenburg County Prime Sponsor: Substance Abuse and Mental Health Services Administration (SAMHSA)

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Modeling Nutritional Mediators of Childhood Intestinal Infection: The Dualrole of Microbiota on Giardia Pathogenesis	\$75,360	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)
Multi-Layer Resilient Active Cyber Defense	\$60,000	Principal Investigator (PI): Wei, Jinpeng Co-PI: Chu, Bei-Tseng	Software and Information Systems	Sponsor: DOD Department of Army(DA) Army Research Office (ARO)
NCDOT CoE Advanced Transportation Technologies (UNC CH HSRC)	\$80,854	Principal Investigator (PI): Pulugurtha, Srinivas Co-PI: Ghasemi, Amirhossein; Duddu, Venkata Ramana	Civil and Environmental Engineering	Sponsor: University of North Carolina at Chapel Hill (UNC-CH) Prime Sponsor: North Carolina Department of Transportation (NCDOT)
Neurotropic Viral Infection in CNS Aging and Alzheimer's Disease	\$243,918	Principal Investigator (PI): Funk Johnson, Kristen	Biological Sciences	Sponsor: National Institutes of Health (NIH)
SMART NANPs: New Molecular Platform for Communication with Human Immune System and Modulation of Therapeutic Responses	\$141,556	Principal Investigator (PI): Afonin, Kirill	Chemistry	Sponsor: NIH National Institute of General Medical Sciences (NIGMS)
Solution for Curbside-Charging Electric Vehicles for Planned Urban Growth	\$162,196	Principal Investigator (PI): Cox, Robert Co-PI: Young, David; Thill, Jean-Claude; Manjrekar, Madhav; Mazzola, Michael	Electrical and Computer Engineering	Sponsor: Department of Energy (DOE)

Award Title	Amount	Investigators	PI Dept.	Sponsors
SUPPORTING FAMILY CAREGIVERS: Coping with Caregiving -Telecare Program	\$264,953	Principal Investigator (PI): Montoro-Rodriguez, Julian	School of Social Work	Sponsor: Southminster Inc.
TeleView: Low-Cost Holographic TelePresence System	\$50,000	Principal Investigator (PI): Han, Tao Co-PI: Chen, Chen	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)
The Efficacy of Using Learning Assistants in Undergraduate Classrooms	\$13,292	Principal Investigator (PI): Westine, Carl	Educational Leadership	Sponsor: University of North Carolina System Office (UNC SysOff) Prime Sponsor: Educational Credit Management Corporation (ECMC) Foundation
The ISC--Thermal Runaway Multiphysics Model Caused by Particle Defects in LIBs	\$100,000	Principal Investigator (PI): Xu, Jun	Mechanical Engineering and Engineering Science	Sponsor: Contemporary Ampere Technology Co., Limited (CATL)
Ventureprise Innovation Commercialization	\$80,000	Principal Investigator (PI): Collins, Devin	Ventureprise	Sponsor: NC IDEA
Virtual Seminar: Japanese for Professions	\$800	Principal Investigator (PI): Kato, Fumie	Languages and Culture Studies	Sponsor: AAS NorthEast Asia Council (NEAC) Prime Sponsor: Association for Asian Studies (AAS)