

May 20, 2019

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

Total amount awarded for the month of April was \$3,005,017

Fiscal Year To Date Total: \$41,033,543

Award Title	Amount	Investigators	PI Dept.	Sponsors
A Hermetically Sealed Magnetically Geared Marine Hydrokinetic Generator	\$18,333	Principal Investigator (PI): Williams, Wesley	Engineering Technology and Construction Management	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
A Launch-Pad for Biologics Acting in Plants	\$162,434	Principal Investigator (PI): Jacobs, Donald	Physics and Optical Science	Sponsor: New Zealand Institute for Plant and Food Research Limited Prime Sponsor: New Zealand Ministry of Business, Innovation and Employment
Advanced Control, Prognostics and Health Management (PHM) for WEC Systems Using Heterogeneous Underwater Communication Network	\$50,000	Principal Investigator (PI): Zhao, Tiefu Co-PI: Han, Tao	Energy Production and Infrastructure Center	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Almighty Charisma? The effect of Charismatic Leadership on Follower Performance in Face-to-Face, Virtual, and Cross-Cultural Interactions	\$3,500	Principal Investigator (PI): Banks, George	Management	Sponsor: Society for Industrial and Organizational Psychology, Inc.
Building Evaluation Capacity Among Nonprofits To Increase Economic and Social Mobility	\$43,811	Principal Investigator (PI): Cook, James Co-PI: Kilmer, Ryan	Psychological Science	Sponsor: United Way of Central Carolinas
Charlotte Water Environmental and Experiential Learning Services FY18-19	\$33,333	Principal Investigator (PI): Keen, Olya Co-PI: Bowen, James	Civil and Environmental Engineering	Sponsor: City of Charlotte
Developing North Carolina Manufacturing for Source Laminated Steel Parts for use in Magnetic Gear Assemblies	\$30,000	Principal Investigator (PI): Williams, Wesley	Engineering Technology and Construction Management	Sponsor: UNC Coastal Studies Institute (UNC-CSI)

Award Title	Amount	Investigators	PI Dept.	Sponsors
Distributed Voltage Control Using Photovoltaic (PV) Inverters in Distribution Systems with High Solar Penetration	\$50,000	Principal Investigator (PI): Bai, Linquan	Systems Engineering and Engineering Management	Sponsor: DOE Oak Ridge National Laboratories
Dynamic Modeling & Optimal Control of Three-Dimensional Ocean Current Turbine Arrays in Realistic Gulf Stream Turbulence Environments	\$35,000	Principal Investigator (PI): Ramaprabhu, Praveen	Mechanical Engineering and Engineering Science	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Entering the World of Plants	\$5,000	Principal Investigator (PI): McIntosh, Amy	Deans Office College of Liberal Arts and Sciences	Sponsor: City of Charlotte
Evaluating Magnetic Gear Boxes Under Failure Scenarios from Jennette's Pier Wind Turbines	\$40,000	Principal Investigator (PI): Williams, Wesley Co-PI: Goudarzi, Navid	Engineering Technology and Construction Management	Sponsor: UNC Coastal Studies Institute (UNC-CSI)
Evaluation of Alternative Schools in Wake County	\$50,000	Principal Investigator (PI): Westine, Carl	Educational Leadership	Sponsor: Wake County Board of Education
Evaluation of Concrete to Support Hartsfield-Jackson Atlanta International Airport's Pavement Management Program	\$69,256	Principal Investigator (PI): Cavalline, Tara Co-PI: Williams, Wesley	Engineering Technology and Construction Management	Sponsor: Aviation Infrastructure Solutions
Expansion of DNA Databases to Assist with Sexual Assault Investigations and Prosecutions: Collection of Lawfully Owed DNA from Convicted Offenders and Arrestee DNA Collections: Subcontract to Conduct Preliminary Census	\$20,000	Principal Investigator (PI): Lord, Vivian	Criminal Justice and Criminology	Sponsor: Charlotte-Mecklenburg Police Department Prime Sponsor: US Department of Justice (DOJ)
Generation of 3D Point Clouds from Multiple Line-Data Sensors	\$19,583	Principal Investigator (PI): Morse, Edward	Mechanical Engineering and Engineering Science	Sponsor: Vantage Corporation

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GOALI: Exploiting Period-n Bifurcations to Reduce Milling Cost	\$16,000	Principal Investigator (PI): Schmitz, Tony	Mechanical Engineering and Engineering Science	Sponsor: National Science Foundation (NSF)
In Vitro and Cellular Tools for Complex Polysaccharide Biosynthesis	\$274,021	Principal Investigator (PI): Troutman, Jerry	Chemistry	Sponsor: National Institutes of Health (NIH)
Increasing Distribution System Resiliency using Flexible DER and Microgrid Assets Enabled by OpenFMB	\$318,000	Principal Investigator (PI): Manjrekar, Madhav Co-PI: Essakiappan, Somasundaram	Electrical and Computer Engineering	Sponsor: DOE Pacific Northwest National Laboratory (PNNL) Prime Sponsor: Department of Energy (DOE)
Mecklenburg Housing Reports Project 2019	\$35,000	Principal Investigator (PI): Clark, Ashley Co-PI: Hochwalt, Bridget	Urban Institute	Sponsor: Mecklenburg County Community Support Services
Mineta National Transportation Research Consortium (MNTRC)	\$149,990	Principal Investigator (PI): Pulugurtha, Srinivas	Civil and Environmental Engineering	Sponsor: San Jose State University Prime Sponsor: US Department of Transportation (DOT)
National Technical Assistance Center on Increasing Graduation and Improving Transition to Postsecondary Education and Careers for Students with Disabilities	\$400,000	Principal Investigator (PI): Test, David	Special Education and Child Development	Sponsor: US Department of Education (DOED)
Neuron-Specific Nanotherapeutics for Acute Spinal Cord Injury	\$66,000	Principal Investigator (PI): Afonin, Kirill	Chemistry	Sponsor: Clemson University Prime Sponsor: National Institutes of Health (NIH)
PDPI: Brazilian English Language Teachers Program	\$209,757	Principal Investigator (PI): Ladenheim, Rachel Co-PIs: Kinter, Lauren; Meyer, Sheryl	International Programs	Sponsor: Institute of International Education, Inc. (IIE)

Award Title	Amount	Investigators	PI Dept.	Sponsors
Playing in Astrid Lindgren's World: Developing Empathy through Dramatic Play	\$300	Principal Investigator (PI): West, Mark	English	Sponsor: Swedish Women's Educational Association (SWEA)
Risk Factors for Microscopic Colitis	\$44,256	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)
ROI - North Carolina Consortium for Self-Aware Machining and Metrology (CSAM)	\$148,891	Principal Investigator (PI): Schmitz, Tony	Mechanical Engineering and Engineering Science	Sponsor: University of North Carolina System Office(UNC SysOff)
SBIR: Super-Resolving Phase Filter Fabrication Study	\$65,088	Principal Investigator (PI): Poutous, Menelaos	Physics and Optical Science	Sponsor: NuSpot Technologies, LLC Prime Sponsor: DOD Defense Advanced Research Projects Agency (DARPA)
Statistical Methods in HIV Vaccine Efficacy Trials	\$94,464	Principal Investigator (PI): Sun, Yanqing	Mathematics and Statistics	Sponsor: Fred Hutchinson Cancer Research Center Prime Sponsor: NIH National Institute of Allergy and Infectious Diseases (NIAID)
Substance P Exacerbation of Bone Inflammation	\$453,000	Principal Investigator (PI): Marriott, Ian	Biological Sciences	Sponsor: National Institutes of Health (NIH)
UNC Coastal Studies Institute: Off-Shore DC 'Microgrid' Integrating MHK Power Generation Combined with High Voltage DC System for Interfacing with On-Shore AC Utility Grid High Voltage DC System	\$100,000	Principal Investigator (PI): Manjrekar, Madhav Co-PI: Chowdhury, Badrul	Electrical and Computer Engineering	Sponsor: UNC Coastal Studies Institute (UNC-CSI)