

May 1, 2018

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

Total amount awarded for the month of March was \$3,437,037

Fiscal Year To Date Total: \$33,950,319

| Award Title | Amount | Investigators | PI Dept. | Sponsors |
|--|---------------|--|-----------------|---|
| 2017-2018 Governor's Institute on Substance Abuse Scholarships | \$10,000 | Principal Investigator (PI): Lassiter, Pamela | Counseling | Sponsor: Governors Institute on Alcohol and Substance Abuse |
| 2018 Charlotte City Walks: Discover Charlotte's Neighborhood Stories | \$16,000 | Principal Investigator (PI): Newsom, Mary Co-PI: Gaines, Angelique | Urban Institute | Sponsor: John S and James L Knight Foundation |
| 2018 Charlotte-Mecklenburg Annual Survey: Arts & Science Council | \$6,150 | Principal Investigator (PI): Gavarkavich, Diane Co-PI: Zager, Kathryn | Urban Institute | Sponsor: City of Charlotte Arts and Science Council |
| 2018 Charlotte-Mecklenburg Annual Survey: Charlotte Center City Partners | \$4,150 | Principal Investigator (PI): Gavarkavich, Diane Co-PI: Zager, Kathryn | Urban Institute | Sponsor: Charlotte Center City Partners |
| 2018 Charlotte-Mecklenburg Annual Survey: Mecklenburg County Community Support Services | \$4,150 | Principal Investigator (PI): Gavarkavich, Diane Co-PI: Zager, Kathryn | Urban Institute | Sponsor: Mecklenburg County Community Support Services |
| 2018 Charlotte-Mecklenburg Annual Survey: YMCA | \$4,150 | Principal Investigator (PI): Gavarkavich, Diane Co-PI: Zager, Kathryn | Urban Institute | Sponsor: YMCA of Charlotte |
| Acute deformation of patellofemoral cartilage following three different movements in patients with patellofemoral pain. | \$1,000 | Principal Investigator (PI): Fenwick, Abbey Co-PI: Jeon, Hyunjae | Kinesiology | Sponsor: Mid Atlantic Athletic Trainers Association (MAATA) |
| Charlotte Community Services Association SMART Evaluation - Phase 1 | \$10,000 | Principal Investigator (PI): Gavarkavich, Diane Co-PI: Lane, Justin | Urban Institute | Sponsor: Charlotte Community Services Association |

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| Collaborative Research: Workshop - 2018 NSF Proposal Writing Workshop | \$15,188 | Principal Investigator (PI): Schmitz, Tony | Mechanical Engineering and Engineering Science | Sponsor: National Science Foundation (NSF) |
| Comparing Freeform Optics Metrology Solution | \$48,491 | Principal Investigator (PI): Evans, Christopher Co-PI: Falaggis, Konstantinos | Mechanical Engineering and Engineering Science | Sponsor: University of Rochester |
| Computational Model for Spacecraft/Habitat Volume | \$30,001 | Principal Investigator (PI): Hsiang, Simon Co-PI: Lim, Churlzu | Systems Engineering and Engineering Management | Sponsor: NASA Johnson Space Center |
| Confidential | \$42,520 | Principal Investigator (PI): Hofmann, Tino | Physics and Optical Science | Sponsor: Confidential Prime Sponsor: Confidential |
| CPS: Synergy: Collaborative Research: Towards Effective and Efficient Sensing-Motion Co-Design of Swarming Cyber-Physical Systems | \$63,322 | Principal Investigator (PI): Wang, Pu | Computer Science | Sponsor: Wichita State University Prime Sponsor: National Science Foundation (NSF) |
| Customer Satisfaction Measurements that Stand Out from the Competition | \$52,000 | Principal Investigator (PI): Smithwick, Jake | Engineering Technology and Construction Management | Sponsor: New Horizons Foundation, Inc. |
| Displace, Return, and Reconstruct: Population Movement and Resilience to Instability | \$358,149 | Principal Investigator (PI): Walsh, James Co-PI: Thill, Jean-Claude | Political Science and Public Administration | Sponsor: Department of Defense (DOD) |
| Duke Energy Single Phase Premise Energy Router using SiC Technology for Residential Applications: SOW 20 | \$99,979 | Principal Investigator (PI): Manjrekar, Madhav Co-PI: Essakiappan, Somasundaram | Electrical and Computer Engineering | Sponsor: Duke Energy Corporation |
| Electrochemical Mineralization of Perfluorooctanoic Acid and Perfluorooctanesulfonic Acid | \$5,000 | Principal Investigator (PI): Sun, Mei | Civil and Environmental Engineering | Sponsor: North Carolina State University (NCSU) Water Resources Research Institute (WRRRI) Prime Sponsor: United States Geological Survey (USGS) |

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| Firebrand Ignition of Insulation Foams - Phase III | \$16,305 | Principal Investigator (PI): Zhou, Aixi | Engineering Technology and Construction Management | Sponsor: ICL Industrial Products |
| Fundamentals of material removal in silicon carbide for freeform optics | \$43,681 | Principal Investigator (PI): Davies, Matthew Co-PI: Owen, Joseph | Mechanical Engineering and Engineering Science | Sponsor: University of Rochester Prime Sponsor: All Other Business and Industry |
| Graduate Assistantship with Global Alliance for Behavioral Health and Social Justice | \$8,519 | Principal Investigator (PI): Kilmer, Ryan Co-PI: Gil-Rivas, Virginia | Psychological Science | Sponsor: American Orthopsychiatric Association (AOA) |
| Graduate Assistantships with Teen Health Connection | \$34,078 | Principal Investigator (PI): Peterman, Amy Co-PI: Kilmer, Ryan | Psychological Science | Sponsor: Teen Health Connection |
| Graduate Fellowships in Bioinformatics and Computational Biology | \$247,130 | Principal Investigator (PI): Gibas, Cynthia Co-PIs: Brouwer, Cory; Livesay, Dennis; Weller, Jennifer; Schlueter, Jessica | Bioinformatics and Genomics | Sponsor: US Department of Education (DOED) |
| H:Drive Experience Program Evaluation and Measures of Success Analysis Novant Health Diversity & Inclusion | \$30,000 | Principal Investigator (PI): Gavarkavich, Diane Co-PIs: Gaines, Angelique; Zager, Kathryn; Simmons, Laura | Urban Institute | Sponsor: Novant Health |
| High Order and Efficient Numerical Methods for Simulating Electromagnetic Phenomena | \$37,465 | Principal Investigator (PI): Chen, Duan | Mathematics and Statistics | Sponsor: Southern Methodist University (SMU) Prime Sponsor: National Science Foundation (NSF) |
| II-New: Collaborative: A Mixed Reality Environment for Enabling Everywhere Data-Centric Work | \$16,000 | Principal Investigator (PI): Lu, Aidong | Computer Science | Sponsor: National Science Foundation (NSF) |

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| Improving Student Mental Health and Enhancing Academic Success Through Interdisciplinary Collaboration: A Collective Impact on Autism Spectrum Disorder | \$29,990 | Principal Investigator (PI): Evans, Dena | School of Nursing | Sponsor: University of North Carolina General Administration (UNC GA) |
| International Facility Management Association Operations and Maintenance Report | \$215,000 | Principal Investigator (PI): Smithwick, Jake | Engineering Technology and Construction Management | Sponsor: International Facility Management Association (IFMA) |
| I-PASS: Improving the Persistence and Success of Students from Underrepresented Populations in Computer Science | \$999.999 | Principal Investigator (PI): Dorodchi, Mohsen Co-PIs: Cukic, Bojan; Mickelson, Roslyn | Computer Science | Sponsor: National Science Foundation (NSF) Prime Sponsor: |
| Israel Had a Jewish Problem: On the Troubles of Being Jewish in the Jewish State | \$55,000 | Principal Investigator (PI): Dalsheim, Joyce | Global Studies | Sponsor: American Council of Learned Societies (ACLS) Fellowship Program |
| Latinx Foodways in the New South | \$1,000 | Principal Investigator (PI): Salas, Consuelo Co-PI: Hammelman, Colleen | University Writing Programs | Sponsor: Association for the Study of Food and Society (ASFS) |
| Low Light Collision Scene Reconstruction | \$12,209 | Principal Investigator (PI): Akella, Srinivas Co-PI: Tabkhivayghan, Hamed | Computer Science | Sponsor: NCSU Institute for Transportation Research and Education (ITRE) Prime Sponsor: North Carolina Department of Transportation (NCDOT) |
| Machining Process Modeling and Optimization for Mobile Machine | \$38,253 | Principal Investigator (PI): Schmitz, Tony | Mechanical Engineering and Engineering Science | Sponsor: Korea Institute of Machinery and Materials (KIMM) |
| Mechanisms that Predict Weight Trajectory after Bariatric Surgery: The Interactive Roles of Behavior and Biology | \$55,041 | 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) National Institute of Diabetes, Digestive, and Kidney Diseases (NIDDKD) |

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| Mecklenburg Housing Reports Project 2018 | \$35,000 | Principal Investigator (PI): Clark, Ashley Co-PI: Gaines, Angelique; Hanson, Clayton; Lane, Justin; Simmons, Laura | Urban Institute | Sponsor: Mecklenburg County Community Support Services |
| Rail Transit, Residential Mobility and Income Segregation | \$165,409 | Principal Investigator (PI): Delmelle, Elizabeth Co-PIs: Nilsson, Isabelle; Schuch, Johanna | Geography and Earth Sciences | Sponsor: National Science Foundation (NSF) |
| Research on De-Identification and Trusted data(DIT) | \$60,000 | Principal Investigator (PI): Park, Noseong Co-PI: Shehab, Mohamed | Software and Information Systems | Sponsor: Electronics and Telecommunications Research Institute (ETRI) |
| REU Site: Nanoscale Science Undergraduate Research Experiences (NanoSURE) at UNC Charlotte | \$299,492 | Principal Investigator (PI): Schmedake, Thomas Co-PI: Brown, Banita | Chemistry | Sponsor: National Science Foundation (NSF) |
| Sorption Characteristics of Soils from L. V. Sutton Energy Complex | \$31,117 | Principal Investigator (PI): Langley, William | Civil and Environmental Engineering | Sponsor: Synterra Ltd. |
| Study and optimization of atmospheric propagation of partially coherent vortex beams | \$74,461 | Principal Investigator (PI): Gbur, Gregory | Physics and Optical Science | Sponsor: Department of Defense (DOD) Department of the Air force (DAF) Air Force Office of Scientific Research (AFOSR) |
| Synthetic Megacity: A socially plausible simulation with tunable complexity engineered to serve as a test bed to validate social science modeling methods | \$111,562 | Principal Investigator (PI): Hadzikadic, Mirsad Co-PI: Whitmeyer, Joseph | Software and Information Systems | Sponsor: University of Central Florida (UCF) Prime Sponsor: Department of Defense (DOD) Defense Advanced Research Projects Agency (DARPA) |
| Telehealth and Aging in Place | \$22,576 | Principal Investigator (PI): Davis, Boyd | English | Sponsor: Medical University of South Carolina (MUSC) Prime Sponsor: Duke Endowment |

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| The Lunch Project: Empathy Assessment and Evaluation Plan | \$20,000 | Principal Investigator (PI): Gavarkavich, Diane Co-PI: Gaines, Angelique | Urban Institute | Sponsor: The Lunch Project (TPL) |
| Tools for the Hiring, Promotion, and Talent Development of Sheet Metal and Mechanical Contractor Personnel | \$7,500 | Principal Investigator (PI): Smithwick, Jake | Engineering Technology and Construction Management | Sponsor: New Horizons Foundation, Inc. |