July 25, 2019

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

Total amount awarded for the month of June was \$6,982,871

Fiscal Year To Date Total: \$51,008,661

| Award Title | Amount | Investigators | PI Dept. | Sponsors |
|---|-------------|--|--|---|
| 2019 Freedom School Assessment Project | \$50,274 | Principal Investigator (PI): Taylor, David | Reading and Elementary Education | Sponsor: Freedom School Partners |
| 2019-2020 NC Coaching, Mentoring, Performance Evaluation and Professional Development for Birth through Kindergarten Licensed Teachers Employed in Non-Public School Classrooms | \$1,921,798 | Principal Investigator (PI): Lambert, Richard | Educational Leadership | Sponsor: North Carolina Department of Health and Human Services (NCDHHS) |
| 2019-2020 Regional EC Education Consultant and State Performance Plan Consultant | \$401,904 | Principal Investigator (PI): Anderson, Kelly | Special Education and Child Development | Sponsor: North Carolina Department of Public Instruction (NCDPI) Prime Sponsor: US Department of Education (DOED) |
| Academy for Population Health Operational Funding | \$276,980 | Principal Investigator (PI): Dulin, Michael | Deans Office College of Health and Human Services | Sponsor: Mecklenburg County Health Department |
| An Adaptable Solar Window toward a Sustainable Energy Future | \$50,000 | Principal Investigator (PI): Zhang, Dan | School of Architecture | Sponsor: National Science Foundation (NSF) |
| Applied Spectral Problems in Population Dynamics, Bio-Physics and Physical Chemistry | \$79,074 | Principal Investigator (PI): Molchanov, Stanislav Co-PI: Vainberg, Boris | Mathematics and Statistics | Sponsor: National Science Foundation (NSF) |

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|--|-----------|---|--|--|
| Breaking Bread: German Experiences of Food and War in Transnational Context | \$3,222 | Principal Investigator (PI): Perry, Heather | History | Sponsor: University of Melbourne |
| CAREER: Integrative Approaches to Uncovering Complex Genotype-Phenotype Relationships in High Dimensional Genomics Data | \$112,132 | Principal Investigator (PI): Shi, Xinghua | Bioinformatics and Genomics | Sponsor: National Science Foundation (NSF) |
| Charlotte Biology and Biotechnology Exchange Group- AY19-20 | \$4,500 | Principal Investigator (PI): Yan, Shan | Biological Sciences | Sponsor: North Carolina Biotechnology Center (NCBC) |
| Charlotte Biomedical 2019 | \$3,000 | Principal Investigator (PI): Lee, Charles | Mechanical Engineering and Engineering Science | 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) |
| Clean Fuel Advanced Technology (CFAT) Outreach, Awareness, and Subawards Program | \$41,584 | Principal Investigator (PI): Facente, Christopher | Facilities Management | Sponsor: North Carolina State University (NCSU) Prime Sponsor: Federal Highway Administration (FHWA) |
| Collaborative Proposal: CyberTraining: Pilot: Aligning Learning Materials with Curriculum Standards to Integrate Parallel and Distributed Computing Topics in Early Computer Science Education | \$249,469 | Principal Investigator (PI): Saule, Erik Co-PI: Subramanian, Kalpathi | Computer Science | Sponsor: National Science Foundation (NSF) |
| Community Link Service Utilization - Phase 2 | \$10,530 | Principal Investigator (PI): Lane, Justin | Urban Institute | Sponsor: Community Link |

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|--|-----------|--|---|---|
| Computational Model for Spacecraft/Habitat Volume | \$90,000 | Principal Investigator (PI): Hsiang, Simon Co-PI: Lim, Churlzu | Systems Engineering and Engineering Management | Sponsor: NASA Johnson Space Center |
| CyberBRICS Fellowship | \$13,800 | Principal Investigator (PI): Jiang, Min | Communication Studies | Sponsor: Fundação Getulio Vargas (FGV) Rio de Janeiro Law School |
| Determination of Electrical and Geometrical Characteristics of Mine-Like and IED-Like Targets Using New Globally Convergent Inverse Algorithms | \$114,879 | Principal Investigator (PI): Klibanov, MIkhail Co-PI: Astratov, Vasily | Mathematics and Statistics | Sponsor: DOD DA Army Research Office (ARO) |
| Development of an End-to-End Deep Learning System for Adaptive Cruise Control | \$2,000 | Principal Investigator (PI): Ghasemi, Amirhossein Co-PI: Tabkhivayghan, Hamed | Mechanical Engineering and Engineering Science | Sponsor: Ford Motor Company |
| Diagnosing Thunderstorm- Induced Power Outages | \$18,470 | Principal Investigator (PI): Eastin, Matthew | Geography and Earth Sciences | Sponsor: Duke Energy Corporation |
| Displace, Return, and Reconstruct: Population Movement and Resilience to Instability | \$410,000 | Principal Investigator (PI): Walsh, James Co-PI: Thill, Jean-Claude | Political Science and Public Administration | Sponsor: Department of Defense (DOD) |
| Department of State (DOS) English Language Specialist Award to Tunisia and Morocco July 2019 | \$11,064 | Principal Investigator (PI): Salas, Spencer | Middle, Secondary and K-12 Education | Sponsor: Georgetown University Prime Sponsor: Department of State (DOS) |
| DURIP: Ultra-Precision Freeform Optics Generator for Space Situational Awareness and Surveillance | \$946,716 | Principal Investigator (PI): Davies, Matthew Co-PIs: Owen, Joseph; Suleski, Thomas | Mechanical Engineering and Engineering Science | Sponsor: DOD DAF Air Force Office of Scientific Research (AFOSR) |

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|---|-----------|--|---|--|
| Emotion Regulation, Attitudes, and Activism in Extraordinary Times | \$29,808 | Principal Investigator (PI): Maestas, Cherie Co-PI: Levens, Sara | Political Science and Public Administration | Sponsor: National Science Foundation (NSF) |
| Engaging Military Veterans to Increase Engineering Enrollment and BS, MS and PhD Degrees Awarded | \$250,000 | Principal Investigator (PI): Tkacik, Peter Co-PIs: Lim, Jae Hoon; Tarbutton, Joshua; Goudarzi, Navid; Keanini, Russell | Mechanical Engineering and Engineering Science | Sponsor: DOD DN Office of Naval Research (ONR) |
| EPIC Affiliates Industry Memberships for Seed Funded Projects | \$45,000 | Principal Investigator (PI): Kopitopoulou, Christina | Energy Production and Infrastructure Center (EPIC) | Sponsor: LS Energy Solutions |
| Epigenetics | \$4,400 | Principal Investigator (PI): Hull, Gordon | Philosophy | Sponsor: North Carolina Biotechnology Center (NCBC) |
| Evaluating the Impact of a Goal Setting Intervention Program with Grandparents Raising their Grandchildren | \$14,124 | Principal Investigator (PI): Montoro-Rodriguez, Julian | Deans Office College of Health and Human Services | Sponsor: Southminster Inc. |
| Evaluation of a Novel Method for Determining County-Level Changes in Pre-Exposure Prophylaxis Usage | \$77,813 | Principal Investigator (PI): Robinson, Patrick | Deans Office College of Health and Human Services | Sponsor: Gilead Sciences, Inc. |
| Focal Point Analysis for Trusting Machine Learning | \$3,000 | Principal Investigator (PI): Dou, Wenwen | Computer Science | Sponsor: DOE Pacific Northwest National Laboratory (PNNL) Prime Sponsor: Department of Energy (DOE) |
| Funds to Finish Index and Intervention: Identifying Students with Financial and Academic Planning Risk and Intervening to Promote Timely Graduation | \$215,000 | Principal Investigator (PI): Smail, John | Undergraduate Education | Sponsor: University of North Carolina System Office (UNC SysOff) |

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| Gaston County Public Service Fellowship | \$24,737 | Principal Investigator (PI): Barth, Thomas | Political Science and Public Administration | Sponsor: Gaston County |
| IPA with DARPA to serve as Program Manager in the Defense Sciences Office | \$272,439 | Principal Investigator (PI): Fiddy, Michael | Physics and Optical Science | Sponsor: DOD Defense Advanced Research Projects Agency (DARPA) |
| Mecklenburg ReCAST Community Trauma Program Evaluation | \$111,086 | Principal Investigator (PI): Kulkarni, Shanti Co-PI: Waites Spellman, Cheryl | School of Social Work | Sponsor: Charlotte Mecklenburg County Prime Sponsor: Substance Abuse and Mental Health Services Administration (SAMHSA) |
| Microalgae Building Enclosures for Bio-Energy and Carbon Sink | \$50,000 | Principal Investigator (PI): Kim, Kyoung-Hee Co-PI: Wu, Chengde | School of Architecture | Sponsor: National Science Foundation (NSF) |
| MPA Public Service Fellowship with Charlotte Regional Business Alliance | \$22,494 | Principal Investigator (PI): Barth, Thomas | Political Science and Public Administration | Sponsor: Charlotte Regional Business Alliance |
| NSF-BSF: Quantifying Climate- Dependent Mechanical Weathering and Subcritical Cracking Over Geological Time | \$201,347 | Principal Investigator (PI): Eppes, Martha Co-PI: Keanini, Russell | Geography and Earth Sciences | Sponsor: National Science Foundation (NSF) |
| Petrographic Examination of Concrete Foundations | \$5,001 | Principal Investigator (PI): Cavalline, Tara | Engineering Technology and Construction Management | Sponsor: Electric Power Research Institute (EPRI) |
| Phase II IUCRC UNC Charlotte Site: Center for Visual and Decision Informatics (CVDI) | \$101,523 | 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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|---|-----------|--|---|---|
| Phytochemical Based Soybean Cyst Nematode Management | \$100,000 | Principal Investigator (PI): Song, Bao-Hua | Biological Sciences | Sponsor: North Carolina Biotechnology Center (NCBC) |
| Protein Markers to Islet Autoimmunity and Type 1 Diabetes Progression | \$27,095 | Principal Investigator (PI): Sha, Wei | Bioinformatics and Genomics | Sponsor: University of North Carolina at Greensboro (UNCG) Prime Sponsor: National Institutes of Health (NIH) |
| PTAC - DLA 2019-20 | \$89,326 | Principal Investigator (PI): McIntire, Robin | Small Business Technology Development Center (SBTDC) | Sponsor: North Carolina Small Business and Technology Development Center (NC SBTDC) Prime Sponsor: DOD Defense Logistics Agency |
| Public Service Fellowship Arts and Science Council | \$20,703 | Principal Investigator (PI): Barth, Thomas | Political Science and Public Administration | Sponsor: Arts and Science Council (ASC) |
| Serving All Who Served: Further Implementation and Spread of an LGBT Veteran Health Education Program in the Veterans Affairs Health Administration | \$12,373 | Principal Investigator (PI): Cramer, Robert | Public Health Sciences | Sponsor: Tuscaloosa Veterans Affairs Medical Center |
| SHARE Charlotte Evaluation - Surveys | \$4,000 | Principal Investigator (PI): Hochwalt, Bridget | Urban Institute | Sponsor: SHARE Charlotte |
| Teacher Education for Equitable Mathematics Instruction: An Exploratory Study of Noyce Program Impacts | \$19,062 | Principal Investigator (PI): Fernandes, Anthony | Mathematics and Statistics | Sponsor: University of Arizona Prime Sponsor: National Science Foundation (NSF) |

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|---|-----------|---|---|--|
| Thermal Camera for Enhanced Laser Damage Testing | \$44,563 | Principal Investigator (PI): Aggarwal, Ishwar | Physics and Optical Science | Sponsor: DOD DN Office of Naval Research (ONR) |
| UNC Charlotte Intelligence Community Center of Academic Excellence | \$298,563 | Principal Investigator (PI): Walsh, James Co-PI: Conrad, Justin | Political Science and Public Administration | Sponsor: DOD Defense Intelligence Agency |
| Using Data Science to Create Election Science | \$20,000 | Principal Investigator (PI): Kropf, Martha Co-PIs: Windett, Jason; Shaikh, Samira | Political Science and Public Administration | Sponsor: Massachusetts Institute of Technology (MIT) Election Data and Science Lab Prime Sponsor: William and Flora Hewlett Foundation |
| Using Maximum Common Substructures to Interpret Hybrid Search Results | \$38,193 | Principal Investigator (PI): Cooper, Brian | Chemistry | Sponsor: DOC National Institute of Standards and Technology (NIST) |
| Utility Interaction Mapping of the United States | \$15,200 | Principal Investigator (PI): Tang, Wenwu | Geography and Earth Sciences | Sponsor: Electric Power Research Institute (EPRI) |
| Ventureprise Launch and Charlotte Venture Challenge | \$1,625 | Principal Investigator (PI): Collins, Devin | Ventureprise | Sponsor: North Carolina Biotechnology Center (NCBC) |
| Witchcraft, Obeah, and Vagrancy: Spiritual Practice and Colonial Law in Britain's Atlantic Empire, 1830s-1960s | \$50,000 | Principal Investigator (PI): Boaz, Danielle | Africana Studies | Sponsor: Harvard University Hutchins Center for African and African American Research |