

February 18, 2019

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

Total amount awarded for the month of January was \$2,424,149

Fiscal Year To Date Total: \$30,334,384

| Award Title   | Amount    | Investigators   | PI Dept.                                | Sponsors  |
|---|-----------|---|---|---|
| <b>2018-2019 Aspire and Senior Day</b>  | \$4,752   | <b>Principal Investigator (PI):</b><br>Brown, Regena    | Academic Diversity & Inclusion          | <b>Sponsor:</b><br>University of North Carolina System Office(UNC SysOff)<br><b>Prime Sponsor:</b><br>US Department of Education (DOED)   |
| <b>2018-2019 NCSIP IHE Partnership</b>  | \$10,000  | <b>Principal Investigator (PI):</b><br>Sacco, Donna     | Special Education and Child Development | <b>Sponsor:</b><br>North Carolina State Board of Education<br><b>Prime Sponsor:</b><br>US Department of Education (DOED)  |
| <b>2018-2019 UNC Charlotte Collegiate Recovery Community (CRC) Project</b>  | \$105,000 | <b>Principal Investigator (PI):</b><br>Dooley, Beau     | Center for Wellness Promotion           | <b>Sponsor:</b><br>University of North Carolina General Administration (UNC GA)<br><b>Prime Sponsor:</b><br>NCDHHS Division of Mental Health, Developmental Disabilities and Substance Abuse Services (MHDDSAS) |
| <b>CAREER: A multiscale framework for crystalline defects in 2-dimensional materials</b>  | \$64,147  | <b>Principal Investigator (PI):</b><br>Li, Xingjie      | Mathematics and Statistics              | <b>Sponsor:</b><br>National Science Foundation (NSF)  |
| <b>CAREER: Stochastic forward and inverse problems involving dynamical systems</b>  | \$71,342  | <b>Principal Investigator (PI):</b><br>McGoff, Kevin    | Mathematics and Statistics              | <b>Sponsor:</b><br>National Science Foundation (NSF)  |
| <b>Coaching, Mentoring, Performance Evaluation and Professional Development for BK Licensed Teachers Employed in Mecklenburg County Universal Pre-K Class</b> | \$250,939 | <b>Principal Investigator (PI):</b><br>Lambert, Richard | Educational Leadership                  | <b>Sponsor:</b><br>Mecklenburg County Smart Start Partnership for Children  |

| <b>Award Title</b>  | <b>Amount</b> | <b>Investigators</b>   | <b>PI Dept.</b>                                | <b>Sponsors</b>  |
|---|---------------|--|--|--|
| <b>Community-based participatory research to better understand the role of food insecurity in childhood overweight</b>                                | \$25,000      | <b>Principal Investigator (PI):</b><br>Racine, Elizabeth   | Public Health Sciences                         | <b>Sponsor:</b><br>Carolinas HealthCare System NorthEast<br><b>Prime Sponsor:</b><br>Duke Endowment      |
| <b>Coordinated Control and Stability Analysis of Multi-Port Series-Stacked PV-Battery Converter Architecture</b>                                      | \$80,002      | <b>Principal Investigator (PI):</b><br>Cox, Robert   | Electrical and Computer Engineering            | <b>Sponsor:</b><br>DOE Oak Ridge National Laboratories   |
| <b>Determination of electrical and geometrical characteristics of mine-like and IED-like targets using new globally convergent inverse algorithms</b> | \$61,626      | <b>Principal Investigator (PI):</b><br>Klibanov, Mikhail<br><b>Co-PI:</b><br>Astratov, Vasily  | Mathematics and Statistics                     | <b>Sponsor:</b><br>DOD DA Army Research Office (ARO)   |
| <b>Dynamic Illumination Optics</b>  | \$52,190      | <b>Principal Investigator (PI):</b><br>Suleski, Thomas<br><b>Co-PI:</b><br>Davies, Matthew   | Physics and Optical Science                    | <b>Sponsor:</b><br>University of Rochester   |
| <b>Engagement of monocytes mitigates neuronal damage in Alzheimer's disease model</b>   | \$54,756      | <b>Principal Investigator (PI):</b><br>Cho, Hansang  | Mechanical Engineering and Engineering Science | <b>Sponsor:</b><br>American Association of Immunologists   |
| <b>Engaging Military Veterans to Increase Engineering Enrollment and B/S, M/S, and PhD Degrees Awarded</b>  | \$250,000     | <b>Principal Investigator (PI):</b><br>Tkacik, Peter<br><b>Co-PIs:</b><br>Lim, Jae Hoon;<br>Tarbutton, Joshua;<br>Goudarzi, Navid;<br>Keanini, Russell | Mechanical Engineering and Engineering Science | <b>Sponsor:</b><br>DOD DN Office of Naval Research (ONR)   |
| <b>Gaston County Public Service Fellowship</b>  | \$11,093      | <b>Principal Investigator (PI):</b><br>Barth, Thomas   | Political Science and Public Administration    | <b>Sponsor:</b><br>Gaston County   |
| <b>In-Situ Metrology with 3D-Display Deflectometry</b>  | \$63,244      | <b>Principal Investigator (PI):</b><br>Falaggis, Konstantinos<br><b>Co-PIs:</b><br>Owen, Joseph;<br>Davies, Matthew;<br>Porras-Aguilar, Rosario        | Mechanical Engineering and Engineering Science | <b>Sponsor:</b><br>University of Rochester<br><b>Prime Sponsor:</b><br>National Science Foundation (NSF) |

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|---|---------------|---|--|---|
| <b>La Compañía de Terrenos y Aguas de la Baja California, S. A.: An Environmental Enterprise Shaping the Lower Colorado River Region, 1900-1962</b> | \$2,000       | <b>Principal Investigator (PI):</b><br>Andres, Benny                                      | History  | <b>Sponsor:</b><br>UCLA Charles E. Young Research Library   |
| <b>Mechanism of APE1 in DNA damage response</b>   | \$331,382     | <b>Principal Investigator (PI):</b><br>Yan, Shan  | Biological Sciences                            | <b>Sponsor:</b><br>National Institutes of Health (NIH)  |
| <b>Mechanisms that Predict Weight Trajectory after Bariatric Surgery: The Interactive Roles of Behavior and Biology</b>                             | \$12,843      | <b>Principal Investigator (PI):</b><br>Fodor, Anthony                                     | Bioinformatics and Genomics                    | <b>Sponsor:</b><br>University of North Carolina at Chapel Hill (UNC-CH)<br><b>Prime Sponsor:</b><br>NIH National Institute of Diabetes, Digestive, and Kidney Diseases (NIDDKD) |
| <b>Near-Roadway and Ambient Air Pollution Exposure and the Gut Microbiome: Implications for Obesity and Insulin Resistance in Adolescence</b>       | \$4,379       | <b>Principal Investigator (PI):</b><br>Fodor, Anthony                                     | Bioinformatics and Genomics                    | <b>Sponsor:</b><br>University of Colorado Boulder<br><b>Prime Sponsor:</b><br>National Institutes of Health (NIH)   |
| <b>Non-contact dimensional inspection - Phase 3</b>   | \$161,624     | <b>Principal Investigator (PI):</b><br>Morse, Edward                                      | Mechanical Engineering and Engineering Science | <b>Sponsor:</b><br>Honeywell, Inc.  |
| <b>NSF-BSF: Quantifying climate-dependent mechanical weathering and subcritical cracking over geological time</b>                                   | \$98,593      | <b>Principal Investigator (PI):</b><br>Eppes, Martha<br><b>Co-PI:</b><br>Keanini, Russell | Geography and Earth Sciences                   | <b>Sponsor:</b><br>National Science Foundation (NSF)  |
| <b>Operating FLEX engines on other than ULS fuel</b>  | \$275,375     | <b>Principal Investigator (PI):</b><br>Uddin, Mesbah                                      | Mechanical Engineering and Engineering Science | <b>Sponsor:</b><br>Electric Power Research Institute (EPRI)   |
| <b>Radical food geographies: Connecting knowledges, cultivating practices, (re)imagining governance</b>   | \$4,000       | <b>Principal Investigator (PI):</b><br>Hammelman, Colleen                                 | Geography and Earth Sciences                   | <b>Sponsor:</b><br>Institute for Human Geography, Inc.  |

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|--|---------------|--|---|--|
| <b>Reconfigurable CGH using SLM</b>  | \$10,901      | <b>Principal Investigator (PI):</b><br>Porras-Aguilar, Rosario | Physics and Optical Science             | <b>Sponsor:</b><br>University of Rochester   |
| <b>Regional EC Education Consultant and State Performance Plan Consultant</b>                | \$40,152      | <b>Principal Investigator (PI):</b><br>Anderson, Kelly         | Special Education and Child Development | <b>Sponsor:</b><br>North Carolina Department of Public Instruction (NCDPI)<br><b>Prime Sponsor:</b><br>US Department of Education (DOED)             |
| <b>SBIR: Using game mechanics to improve outcomes among stem cell transplant survivors</b>   | \$15,980      | <b>Principal Investigator (PI):</b><br>Zhang, Dongsong         | Business Info Systems/Oper              | <b>Sponsor:</b><br>Radiant Creative Group, LLC<br><b>Prime Sponsor:</b><br>National Institutes of Health (NIH)                                       |
| <b>Science, Women, and the Mother Tongue: Translating Knowledge for Young Readers</b>        | \$1,000       | <b>Principal Investigator (PI):</b><br>Rauch, Alan             | English                                 | <b>Sponsor:</b><br>Indiana University Lilly Library  |
| <b>Shared Administrative Support Funding for NSF IUCRC Phase II Center for Metamaterials</b> | \$86,402      | <b>Principal Investigator (PI):</b><br>Aggarwal, Ishwar        | Physics and Optical Science             | <b>Sponsor:</b><br>Clarkson University<br><b>Prime Sponsor:</b><br>National Science Foundation (NSF)   |
| <b>Shelter Employee Engagement and Development Survey (SEEDS) support</b>                    | \$16,500      | <b>Principal Investigator (PI):</b><br>Rogelberg, Steven       | Psychological Science                   | <b>Sponsor:</b><br>PetSmart Charities, Inc.  |
| <b>State Systemic Improve Plan (SIP) Evaluation</b>  | \$75,931      | <b>Principal Investigator (PI):</b><br>Anderson, Kelly         | Special Education and Child Development | <b>Sponsor:</b><br>North Carolina Department of Public Instruction (NCDPI)<br><b>Prime Sponsor:</b><br>US Department of Education (DOED)             |
| <b>Support of the graduate student working on P2EP knowledgebase and continuity project.</b> | \$7,932       | <b>Principal Investigator (PI):</b><br>Brouwer, Cory           | Bioinformatics and Genomics             | <b>Sponsor:</b><br>North Carolina State University (NCSU)<br><b>Prime Sponsor:</b><br>NCSU NCSU Plant Pathways Elucidation Project Consortium (P2EP) |

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|--|---------------|--|--|--|
| <b>Translating Evidence to Support Transitions: Improving Outcomes of Youth in Transition with Psychiatric Disabilities by Use and Adoption of Best Practice Transition Planning</b> | \$20,000      | <b>Principal Investigator (PI):</b><br>Test, David     | Special Education and Child Development            | <b>Sponsor:</b><br>University of Massachusetts Medical School<br><b>Prime Sponsor:</b><br>Department of Health and Human Services (DHHS) |
| <b>Treatment of algal toxins in drinking water with UV/Cl2 and UV/H2O2 advanced oxidation: toxicity of transformation products and effect on disinfection byproduct formation</b>    | \$60,000      | <b>Principal Investigator (PI):</b><br>Keen, Olya      | Civil and Environmental Engineering                | <b>Sponsor:</b><br>NCSU Water Resources Research Institute (WRRI)  |
| <b>Wetland and Stream Predictive Model Improvements</b>  | \$95,064      | <b>Principal Investigator (PI):</b><br>Wang, Sheng-Guo | Engineering Technology and Construction Management | <b>Sponsor:</b><br>North Carolina Department of Transportation (NCDOT)   |