



### **FY 2019 Faculty Research Development Grant Program (FRDGP): Announcement of Awardees**

The Office of Research, Innovation, and Sponsored Programs (ORISP) is pleased to announce the award of Faculty Research Development Grant Program (FRDGP) funding to four Type A, 12 Type B and 7 Type C projects. The Type A program provides funding up to \$90,000 for one year to cover salary for one postdoctoral fellow, one graduate student, and research expenses. The Type B program provides funding up to \$45,000 for one year for research expenses and a salary for one graduate student. The Type C program provides up to \$16,000 for Principle Investigators (PIs) to employ graduate students in their research programs. The ORISP congratulates the PIs of the awarded projects, and acknowledges the contribution of the faculty and scientists who served as reviewers of the submitted proposals. Faculty members whose proposals could not be funded this time are encouraged to submit revised proposals for the next cycle of funding. The lists of faculty awardees of Type A, Type B and Type C programs are shown below:

#### **Type A program awardees**

PI	Department	Project Title
April Lovelady	Mechanical Engineering	Impact of an External Vascular Access Device on Arteriovenous Fistula Patency Rates
Yuhao Xu	Mechanical Engineering	High Pressure Combustion of Liquid Fuels in Microgravity
Yunxiang Gao	Chemistry	Develop Novel Tissue Engineering Scaffolds for Regenerative Medicine, Cancer and Radiobiology Research
Sameh Abdelwahed	Chemistry & Physics	Thiamin and Thiamin analogues as Carriers for Drug Delivery to Cancer Cells

## Type B program awardees

PI	Department	Project Title
Gina Chiarella	Chemistry	Synthesis, Characterization and Modeling Study of Environmentally Friendly Schiff-Based Catalyst with Improved Reducing Power
Gururaj Neelgund	Chemistry	Design and synthesis of novel NIR active photothermal agents for photothermal therapy of cancer
Jaejong Park	Mechanical Engineering	Stiffness matching implant through biomimetic fibrous structures for craniofacial reconstruction surgery
Marco Giles	Chemistry	Dynamic Covalent Polycarbonate Systems: "Rewritable" and Self-Healing Architectures Facilitated by Thiol-Disulfide Exchange
Lai Jiang	Mechanical Engineering	Sustainable Bio-composites Manufacturing using Bio-fiber (hemp) Pre-preg
Yuki Shigemotot	Psychology	Longitudinal effect of personal growth initiative on posttraumatic stress symptoms among African American college students
Victoria Mgbemena	Biology	The role of germline mutations in DNA repair genes in cancer stem cell development and renewal
Roslyn Caldwell-Gunes	Psychology	The Collective Group Identity Project: An Examination and Comparison of Identity Development, Cultural Mistrust, and mental Health Issues among Black Male College Students and Black Male First Time Offenders.
Xiaobo Peng	Mechanical Engineering	Direct 3D Printing System Using LOM Process: from Point Cloud to Additive Manufacturing
Harshica Fernando	Chemistry	Lipidomic Signatures of Milk Lipids and Their Association in the Prevention and Treatment of Alcoholic and Non-alcoholic Fatty liver
Nabila Shamim	Chemical Engineering	Investigate the Glass Transition Temperature (T <sub>g</sub> ) of Polymer – Graphene nanoplatelet Thin Films
Lei Huang	Computer Science	Conducting Research in Convergence of High Performance Computing and Data Science

### Type C program awardees

PI	Department	Project Title
Shuza Binzaid	Electrical & Computer Engineering	Multifunctional Sensor and Custom Electronic Module for Detection of Ionic, Electromagnetic and Radiation Environments
Ananda Amarasekara	Chemistry & Physics	Renewable monomer based next generation biodegradable polymer architectures
Sarhan Musa	Engineering Technology	Computational Nanotechnology and Artificial Intelligence to Enhance Solar Photovoltaic Cells for Renewable Energy
Xiangfang Li	Electrical & Computer Engineering	Deep Learning for Biomedical Bioinformatics
Dumitru Iacobas	Electrical & Computer Engineering	Complement C5ar1 Antagonists for the Treatment of Autism Spectrum Disorders
Manouchehr Misaghian	Mathematics	Representation Theory of p-adic Groups and Howe's Local Duality
Xishuang Dong	Electrical & Computer Engineering	Machine Learning Based Fake News Detection on Twitter