Announcement for Undergraduate Research and Innovation (URI)

Student Seed Grant Winners

Fall 2022

We are pleased to announce the recipients of the Fall 2022 URI Seed Grants. Eleven phase one

and ten phase two grants have been awarded for Fall 2022.

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| **Phase -1 Seed Grants** |   |   |   |   |
| **Lead Student Name** | **Lead Student Major** | **Title of Proposal** | **Faculty Advisor's Name** | **Faculty Advisor's Department** |
| Adrian Sudol | Biomedical Engineering | Exploring the effects of fibroblasts and myofibroblasts on axonal growth in in vitro collagen hydrogel models | Jonathan Grasman | Biomedical Engineering |
| Akhil Nagulapalli | Biomedical Engineering | Local Field Potential Apparatus | Jonathan Grasman | Biomedical Engineering |
| Jocelyn Ortiz | Mechanical Engineering Technology  | HealthCare Labor Shortage Crisis | Maximiliano Rodriguez | Mechanical Engineering  |
| Karl Gaiser | Biochemistry | Recovering and reusing phosphorus with Zirconium-modified mica coupled with nanobubbles | Lijie Zhang | Chemistry and Environmental Science |
| Luke Pothen | Biomedical Engineering | Development of a novel framework to quantify dynamic human movements in water | Jongsang Son | Biomedical Engineering  |
| Nevin Antony | Biomedical Engineering  | Recreating mechanical behavior of spastic joint | Jongsang Son | Biomedical Engineering |
| Ojasvita Reddy | Biomedical Engineering  | Photo-induced anionic polymerization using a novel photo activator | Yuanwei Zhang | Chemistry and Environmental Science |
| Peter Kutuzov | Biochemistry  | Determining the Synergistic Effects of ECM Coating and Neurotrophic Factors on Neuronal Growth in Collagen Gel 3D-Model | Jonathan Grasman | Bio-Medical Engineering |
| Saumya Dwivedi | Computer Science | Lower-Body Extremity Exoskeleton for Walking Abnormalities: A Quality of Life Initiative for Cerebral Palsy Patients | Saikat Pal | Biomedical Engineering |
| Sophia Starzynski | Biomedical Engineering  | Investigating Carotid Blood Flow as a biomarker for Concussions | Chang Yaramothu | SAET |
| Stuti Mohan | Biomedical Engineering | Identifying a Novel Concussion Metric through Foot Tapping Measurement | Chang Yaramothu | SAET  |

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| **Phase - 2 Seed Grants** |   |   |   |   |
| **Lead Student Name** | **Lead Student Major** | **Title of Proposal** | **Faculty Advisor's Name** | **Faculty Advisor's Department** |
| Abdul Lateef FNU | Computer Science | Machine learning to accelerate the discovery of VEGF-inhibiting peptides | Bo Shen | Mechanical and Industrial Engr |
| Aisha Khan | Biomedical Engineering | Miniaturized Peptide Synthesizer for Rapid Drug Prototyping | Vivek Kumar | Biomedical Engineering |
| Ashish Kokkula | Biomedical Engineering | Platinum Nanoparticles' Mechanism of Action in Triple Negative Breast Cancer | Kathleen McEnnis | Chemical Engineering |
| Ashley Suthammanont | Biochemistry  | High-efficient inactivation of airborne viruses using a microwave catalytic air filtration system | Wen Zhang | Civil and Environmental Engineering |
| Francis Kanwanya-Nwajueboe | Biomedical engineering  | Synthesis and characterization of SGLT-1 inhibitors for diabetic glucose management  | Vivek Kumar | Biomedical engineering  |
| Marcela Garcia | Mechanical Engineering | Studying Cryogenic Liquid Behavior in Space | Angelantonio Tafuni | SAET/MIE |
| Muhammad Arslan Hashmi | Biomedical Engineering  | IGF Mimicry for Muscle Regeneration in Diabetes and Peripheral Artery Disease  | Vivek Kumar | Biomedical Engineering  |
| Sahitya Kulkarni | Biology  | Binding Kinetics of De Novo Inflammation Modulation Peptides for Diabetic Wound Healing | Vivek Kumar | Biomedical Engineering |
| Siya Patel | Biology | Characterization of "Diablo" hydrogel to attack tumor margins in Glioblastoma Multiforme patients | Vivek Kumar | Biomedical Engineering |
| Vijay Subramanian | Biology | Does mitochondrial DNA activate immune responses during TB infection? | Mary Konsolaki | Biology Department |
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