



Awarded Seed Grant Proposals

Following is a list of proposals selected for the university-wide Faculty Research Seed Grant Program. The program is intended to foster increased extramural funding by facilitating the development of innovative research ideas and collaborations that will lead to successful grant applications.

- **Role of Oxidative Stress on Aging and Age-Associated Neurodegenerative Diseases**
Principal Investigator: D. Binniger
- **Study in the Structural Characteristics of Protein Oligomers and the Kinetics of Protein Oligomerization**
Principal Investigator: D. Du
- **Next-Generation Sequencing Training for Resubmission of NSF MRI Proposal**
Principal Investigator: S. Edge
- **A Novel Design-Space Oriented Cross-Layer Optimization Approach for Mobile Internet Applications**
Principal Investigator: X. Wang
- **Mathematical Modeling and Aero-Hydro-Elastic Response of Hybrid Floating Platform for Combined Wind and Wave/Current Energy Conservation**
Principal Investigator: M. Arockiasamy
Co-PIs: M. Dhanak, C. Ghenai, J. Vanzwieten
- **Data Link Communication Protocols for Underwater Laser Sensor Networks**
Principal Investigator: I. Cardei
Co-PIs: F. Dalgleish, M. Cardei
- **Pilot Study to Investigate the Spatial Variability of Greenhouse Gas Emissions from Peat Soils Using an Array of Hydrogeophysical and Geodetic Methods**
Principal Investigator: X. Comas
Co-PIs: M. Berber, C. Plattner

- **Activating the PKG Pathway as a Means of Neural Protection from Stroke-Like Injury**
 Principal Investigator: K. Dawson-Scully
 Co-PIs: S. Milton, H. Prentice, M. Perez-Pinzon (University of Miami Miller School of Medicine)
- **A Genetic Study of Natural Hybridization in African Monkeys**
 Principal Investigator: K. Detwiler
 Co-PI: T. Godenschwege
- **Functional MRI of Shark Olfaction**
 Principal Investigator: S. Kajiura
 Collaborator: L. Frank (University of California-San Diego)
- **Ultrafast Synthesis of F18-Organosilicon Tracers for PET**
 Principal Investigator: S. Lepore
 Co-PI: V. Dragojlovic
 Collaborator: V. Pike (National Institute of Mental Health)
- **Size and Mast Cell-Dependent Anti-Colitis Effects of Chitin Particles**
 Principal Investigator: Y. Shibata
 Collaborators: M. Nouri-Shirazi, J. Brown (East Carolina University), C. Kathy Dorey (Virginia Tech Carilion School of Medicine and Research Institute), M. Graciela Rubio (Virginia Tech Carilion School of Medicine and Research Institute), E. Mizoguchi (Massachusetts General Hospital)
- **Sustainable and Resilient Infrastructure: Fatigue and Fracture of Recycled Asphalt Pavement with Geosynthetic Reinforcement**
 Principal Investigator: K. Sobhan
 Co-PI: L. Carlsson
 Collaborator: H. Ali (Sustainable Road Engineering Inc., Davie)
- **Regulation of BimEL Phosphorylation in the Pathogenesis of Huntington's Disease**
 Principal Investigator: J. Wei
 Co-PI: R. Tao
- **Water Quality Assessment in Florida Bay Using Remote Sensing Techniques**
 Principal Investigator: C. Zhang
 Co-PIs: T. Root, Z. Xie, L. Berry, M. Koch