

GRANTS IN AID OF RESEARCH AWARDS (GIAR)

March 2023 Grant Cycle

Grant Recipients by Discipline

ANTHROPOLOGY				
First Name	Last Name	Education Status	Institution	Study Title
Trevor	Auldridge Reveles	Doctoral Student	California, University of California- Santa Barbara	California Dreaming: Coming of Age in America's Other Heartland
Cecilia	Barroso Medina	Doctoral Student	University of Wollongong	Modelling the effect of hominin hand morphology on the biomechanics of stone tool production
Seth	Dornisch	Doctoral Student	Massachusetts, University of Massachusetts-Amherst	Residential environments, personal belongings, and subjective well- being in senior care communities
Mara	Fields	Doctoral Student	Missouri, University of Missouri- Columbia	3D Biomechanics of Hallucal Grasping in Anthropoid Primates
Jayde	Hirniak	Doctoral Student	Arizona, Arizona State University- Tempe	Developing a robust tephrochronological framework for refined correlations and age estimates of environmental and archaeological deposits throughout South Africa
Prabin	Karki	Masters Student	Tribhuvan University	Successful ageing and associated factors among older adults of Kathmandu district, Nepal
Elizabeth	McGuire	Doctoral Student	Oregon, University of Oregon	Quantifying aridity in modern African environments with triple oxygen isotopes in mammal teeth: implications for human evolution
Ashley	Smith*	Masters Student	Ontario, University of Toronto	Histochemical Differentiation of Perimortem Trauma and Early Postmortem Damage as a means of Timing Injuries and Determining the Postmortem Interval
Alexandra	St Tellien	Masters Student	Georgia, Georgia State University	The Role of Langaj in the Transmission and Preservation of Haitian Culture and Vodou Tradition

BEHAVIORAL ECOLOGY

First Name	Last Name	Education Status	Institution	Study Title
Jade	Anderson	Masters Student	Idaho, Boise State University	Revealing the Mechanism of an Anti-Bat Sensory Illusion
Tara	Empson	Doctoral Student	Tennessee, The University of Tennessee-Knoxville	The effects of acute heat on signal reception
Gene	Estrada	Doctoral Student	Michigan, University of Michigan- Ann Arbor	Identifying the ecological influences on terrestrial behavior in a primate community
Alexandra	Martin	Doctoral Student	New York, Binghamton University	Thermoregulatory behaviors following antipredator diving behavior in <i>Anolis aquaticus</i>
Laney	Nute	Doctoral Student	Mississippi, University of Mississippi	The influence of individual behavioral differences and recovery program rearing method on dispersal and survival of the Attwater's Prairie Chicken
Thomas	Quigley	Doctoral Student	New York, CUNY Brooklyn College	Is Anthropogenic Noise a Selective Pressure in New York City Waters?
Loren	Sieg	Doctoral Student	Alabama, The University of Alabama	Effects of habitat complexity during early development on spatial cognitive ability
Riley	Wood	Masters Student	Alabama, The University of Alabama	Performance Variation in the Cold Across a Subtropical-Tropical Latitudinal Gradient

CELL BIOLOGY/BIOCHEMISTRY

First Name	Last Name	Education Status	Institution	Study Title
Sadia	Amankwa	Doctoral Student	Delaware, University of Delaware	The role of non-muscle myosin IIA (NMIIA) in mouse lens epithelial to mesenchymal transition and anterior subcapsular cataract formation.
Ana Margarida	Grego	Masters Student	Universidade do Porto	Study of proteins associated with sexual dimorphism in aortic valve stenosis.
Xiaobo	Behera	Doctoral Student	Minnesota, Mayo Clinic College of Medicine and Science	Investigating regulatory mechanisms of ciliary polyglutamylation
Shravani	Berg	Doctoral Student	Massachusetts, Northeastern University	Vascularisation of Cardiac Organoids

CELL BIOLOGY/BIOCHEMISTRY (Continued)

Lindsay	Somerville	Masters Student	Virginia, University of Virginia- Main Campus	Type 2 inflammatory cytokine production as a driver of frequent exacerbations in cystic fibrosis
Jyoti	Chimata	Doctoral Student	Tennessee, East Tennessee State University	Elucidation of the Mechanistic Role of Novel Avocado Oil Biosynthesis Regulator Protein WRINKLED2
Lex	Chung	Undergraduate Student	Tennessee, Christian Brothers University	Effect of Ceramide on Human Meibomian Gland Epithelial Cells
Jordan	Islam	Undergraduate Student	Pennsylvania, Saint Joseph's University	Phospho-mimetic 4EBP2 expression can prevent hippocampal protein synthesis impairments caused by sleep deprivation in female mice
Constantin	Juvale	Masters Student	Alberta, University of Alberta	Using a disease-in-a-dish model to explore the function of peroxisomes in the retina
Malia	Kakarla	Doctoral Student	Illinois, University of Illinois at Urbana-Champaign	The regulation of glycogen in bovine uterine epithelial cells by progesterone
Janice	McCarthy	Doctoral Student	Massachusetts, Harvard University	Transcriptomic Profiles of the Inner Ear in States of Glutamate- Analogue-Induced Synaptopathy and NT3-Mediated Regeneration: Investigating the Role of Gria2
Anuradha	Mieles	Doctoral Student	Ohio, University of Dayton	Characterization of Defective proventriculus (Dve) function during Drosophila eye development
Brooke	Mouzaaber	Doctoral Student	Colorado, University of Colorado Boulder	Searching for Solutions to Bone Weakness in Space through the Osteocyte Pericellular Matrix
Parag	Shepard	Doctoral Student	Massachusetts, University of Massachusetts-Amherst	Investigating how GABAergic signaling assists early-life light exposure to stabilize visual acuity in adulthood.
Charles	Amankwa	Doctoral Student	Texas, University of North Texas Health Science Center	Understanding the Mitochondrial Metabolic Activity of Compound SA-2 in primary human Trabecular Meshwork cells.
Dayna	Sun	Undergraduate Student	Vermont, Saint Michael's College	The generality of efflux pump-mediated gentamicin collateral sensitivity in Escherichia coli
Jacob	Weaver	Masters Student	Ohio, Miami University-Oxford	Transcriptomic analysis of FOXE3 Knockouts; a transcription factor that is essential for lens development

CHEMISTRY				
First Name	Last Name	Education Status	Institution	Study Title
Frank Boateng	Osei	Doctoral Student	Michigan, Oakland University	Using polycationic pillararenes for heparin sensing
Micah	Shaver	Masters Student	Arkansas, University of Arkansas at Little Rock	The Design of New and Environmentally Safe Herbicides Using AI and Molecular Modeling
CLIMATE SCIENCE				
First Name	Last Name	Education Status	Institution	Study Title
Savannah	Adkins	Doctoral Student	Utah, Utah State University	Deciphering a Biogeochemical Grey-Box: Does Acidification Result in Macronutrient Limitations and Altered Soil Carbon Cycling?
Michael	Rodriguez	Undergraduate Student	New York, Fordham University	Measurement of Exposure to Particulate Matter Pollution And Its Effects on Stress
Averie	St.Germaine	Doctoral Student	Massachusetts, University of Massachusetts-Boston	Elevated Temperature and Drought on Mutualisms Involving Three Trophic Levels
CONSERVATION BIOLOGY				
First Name	Last Name	Education Status	Institution	Study Title
Maurice	Amee	Doctoral Student	Connecticut, University of Connecticut	Conservation of the Threatened Whitebark Pines Through Genomics Approaches to Identify Resistance Genes to White Pine Blister Rust Disease
Garrett	Gimbel	Masters Student	California, California Polytechnic State University-San Luis Obispo	Population and distribution of potentially endangered Narrow- faced Kangaroo Rat (<i>Dipodomys venustus</i>)
Ana	Mansilla	Undergraduate Student	Florida, University of South Florida - Main Campus	Correlation in gene expression between non-destructive and destructive tissue sampling: implications for species of conservation concern.

CONSERVATION BIOLOGY (continued)

Nicole	Stevens	Doctoral Student	Texas, Texas A & M University- College Station	Integrating landscape and behavioral ecology to inform the repatriation of endemic island herpetofauna
Lila	Xenakis	Undergraduate Student	Florida, Florida Institute of Technology	Collecting DNA from Sharks using Non-Invasive Skin Sampling
Jessica	Yates	Doctoral Student	Florida, University of Central Florida	Dietary Ecology of Native and Exotic Crocodylians (Reptilia: Crocodylia) in South Florida: Conservation Implications for the American Crocodile (<i>Crocodylus acutus</i>).

ECOLOGY

First Name	Last Name	Education Status	Institution	Study Title
Evelyn	Abbott	Doctoral Student	Texas, The University of Texas at Austin	Algal adaptation: a novel method for population genetics research in a coral endosymbiont
Logan	Becker	Undergraduate Student	Pennsylvania, Gettysburg College	Foraging and Diet Plasticity of Common and Arctic Terns Under Climate Change
Katherine	Gale	Doctoral Student	Washington, Washington State University	Assessing atmospheric deposition in an urban landscape: Effects of Policy and Infrastructure in Portland, OR
Markis'	Hamilton	Undergraduate Student	North Carolina, Fayetteville State University	Prevalence of Antibiotic Resistant Bacteria in Nutrient Enriched Soil Environments
Brandon	Hays	Doctoral Student	North Carolina, Duke University	Ecological Impacts of Elephant Reintroductions in Thai Forests
Veronica	Iriart	Doctoral Student	Pennsylvania, University of Pittsburgh- Pittsburgh Campus	Will herbicide pollution cost plants their symbiosis with beneficial soil bacteria?
Zira	MacFarlane*	Doctoral Student	Ontario, University of Toronto at Mississauga	Understanding the impacts of increasing salinity in freshwater ecosystems on calling anuran population dynamics and community composition.

ECOLOGY (Continued)				
Hannah	Merges	Masters Student	California, California State University-Northridge	Effects of submarine groundwater discharge on adult coral metabolism
Maygan	Palacios	Masters Student	Georgia, Georgia Southern University	Determining Optimal Source Material of Spartina alterniflora for salt marsh restoration in Coastal GA
Elizabeth	Strasko	Masters Student	Kentucky, Western Kentucky University	Measuring temporal variation in ephemeral pond amphibian communities using metabarcoding
Shae	Turner	Masters Student	British Columbia, Thompson Rivers University	Examining the role of molt in carry-over effects from overwintering to migration for Neotropical migratory songbirds
Shea	Volkel	Doctoral Student	Florida, University of South Florida- Main Campus	Diet preference of invasive lionfish and prey vulnerability: Implications for regal demoiselle invasion risk and impact

ENGINEERING				
First Name	Last Name	Education Status	Institution	Study Title
Jacob	Ager	Masters Student	Ahmadu Bello University	Development of an Improved Charcoal-Fired Oven or Valorizing Biowastes
Chiadika	Eleh	Undergraduate Student	Pennsylvania, University of Pennsylvania	Deep Learning Model for Mapping Ex Vivo Clinical Bone CT Scans to In Vivo Bone CT Scans to Recover Bone Microstructure
Jayavignesh	Ganesan	Undergraduate Student	Illinois, Northwestern University	Synthesis of a Biocompatible Scaffold for Mesenchymal Stem Cell Seeding
Fotsing	Kuetche	Doctoral Student	University of Ngaoundere	Optimization of deep learning-based arrhythmias detection systems for m-Health
Manish	Kumar	Doctoral Student	Iowa, Iowa State University	Solder Joints Under Extreme Conditions of Temperature and High Strain-rate for In-Space Applications

ENGINEERING (Continued)				
YiRan	Li	Masters Student	New York, Columbia University	Electrical and Metabolic Maturation of Engineered Cardiac Tissues for the In-Vitro Modeling of Cardiovascular Diseases
Alireza	Mohammadzadeh	Doctoral Student	Pennsylvania, University of Pittsburgh-Pittsburgh Campus	Optimization of the Magnetoliposome Fabrication for Retinal Drug Delivery
GEOSCIENCES				
First Name	Last Name	Education Status	Institution	Study Title
George	Anim	Masters Student	Oregon, Portland State University	Shock Thermal Processing of Shergottites Using Evidence For Pressure, Temperature and Deformation Gradient
Julia	Gonzales	Doctoral Student	New York, Columbia University in the City of New York	Measuring Rare Earth Element Distributions in CM Chondrites
Benjamin	Guerrero-Lewin	Doctoral Student	New York, Syracuse University	Revealing the influence of climate on hillslope processes using the 14C-10Be cosmogenic nuclide pair in the western Central Andes (30- 36°S)
Samantha	Khatri	Doctoral Student	Georgia, University of Georgia	The relationship of aggradation rate and fluvial architecture: a test in the Maastrichtian Hell Creek Formation of Montana and South Dakota
Alexis	Lopez	Doctoral Student	North Carolina, University of North Carolina at Chapel Hill	Paragenesis of the Buffalo Valley Mine, NV
Silvina	Slagter	Doctoral Student	Connecticut, Yale University	Testing the use of Ge/Si ratios as a proxy for the fossilization of Earth's earliest animal ecosystems
Mark	Teh	Undergraduate Student	Massachusetts, Northeastern University	Analysis of calcium carbonate fractions and polymorph mineralogy in sediment samples collected from the Western Atlantic continental shelf during NOAA's ECOA-3 research cruise in Summer 2022

PHYSICS/ASTRONOMY

First Name	Last Name	Education Status	Institution	Study Title
Nicole	Firestone	Doctoral Student	New Jersey, Rutgers University-New Brunswick	One-hundred-square-degree DECam Imaging in Narrowbands Observations In Chile
Shinto	Francis	Doctoral Student	South Carolina, Clemson University	An EIS approach to study the electrochemical interactions at Graphene FET gate surface and its implementation in biosensing
Giulia	Fumagalli	Doctoral Student	Universita degli Studi di Milano	Eccentricity: the missing piece of the dynamics of precessing compact binaries
Krislyn	Sourivong	Doctoral Student	Virginia, Virginia Polytechnic Institute and State University	Early-Types: Tests of Empirical and Theoretical Models of Molecule Formation
Mehnaz	Tarannum	Doctoral Student	North Carolina, University of North Carolina at Charlotte	Synthesis and Characterization of Vanadium Oxide-Based Insulator- to-Metal Transition Materials

PHYSIOLOGY/FUNCTIONAL MORPHOLOGY

First Name	Last Name	Education Status	Institution	Study Title
Danielle	Adams	Doctoral Student	South Carolina, Clemson University	Cetartiodactyla as a model for investigating the evolution of bone material properties across the skull and jaw
Sofia	Ahsanuddin	Doctoral Student	New York, Icahn School of Medicine at Mount Sinai	Elucidating the Transcriptional Landscape and Novel Pathophysiological Mechanisms of Thyroid Eye Disease.
Annelise	Blanchette	Doctoral Student	Louisiana, Tulane University of Louisiana	The effect of lead exposure on endurance in the brown anole, Anolis sagrei

PHYSIOLOGY/FUNCTIONAL MORPHOLOGY (Continued)				
Natalie	Bohmke	Doctoral Student	Virginia, Virginia Commonwealth University	Leveraging circadian rhythms to eradicate hypertension: the effects of chrononutrition
Lisa	Cozma*	Undergraduate Student	Alberta, University of Calgary	Measuring muscle energetics and the mechanical efficiency of the quadriceps (Q) vs the plantar flexor (PF) muscle-tendon units during knee and ankle isokinetic movements in vivo
Zoe	Griffin	Undergraduate Student	Texas, Rice University	Skin Color Development and CRISPR Genome Editing in the Brown Anole Lizard (<i>Anolis sagrei</i>)
Gabrielle	Morris	Undergraduate Student	Mississippi, University of Mississippi	Influence of Post-Fledging Protein Supplementation on Growth, Reactive Stress and Secondary Sexual Characteristics In Zebra Finches (<i>Taeniopygia castanotis</i>)
Yeaeun	Park	Masters Student	Ohio, Ohio State University-Main Campus	The Effect of Ambient Temperature on the Sensitivity of a Noxious Chemical Receptor (TRPA1) in Mosquitoes
Jorge	Rivero Monteagudo	Masters Student	New Mexico, New Mexico State University-Dona Ana	Endocrine regulation and vaginal cytology of the Jamaican fruit-eating bat (<i>Artibeus jamaicensis</i>) in captive conditions
Sirin	Zhang	Doctoral Student	New Jersey, Rutgers University-Newark	Inhibitory Pedunculopontine Input to the Dopaminergic Midbrain Mediates Goal-Directed Action Selection
PSYCHOLOGY				
First Name	Last Name	Education Status	Institution	Study Title
Courtney	Aul	Doctoral Student	Massachusetts, Boston University	Visual Sustained Attention Fluctuations in Parkinson's Disease
Sarah	Beamish	Doctoral Student	Wisconsin, University of Wisconsin-Milwaukee	Determining the extent to which 17 β -estradiol regulates protein degradation in an activity-dependent manner to enhance hippocampal memory formation in ovariectomized female mice.
Brandon	McCormick	Doctoral Student	Alabama, The University of Alabama	Examining the Effects of Mild Traumatic Brain Injury on Youth Mental Health
Codey	Smithson	Undergraduate Student	Massachusetts, Williams College	The Role of Oxycodone-Induced Neuroinflammation in Regulating Increased Motivation for Reward

SYSTEMATICS/EVOLUTIONARY BIOLOGY

First Name	Last Name	Education Status	Institution	Study Title
Alyssa	Baker	Masters Student	South Carolina, Clemson University	A formal test of the historical biogeographic scenario proposed by George (2006) to explain diversification and geographic distribution of spiny lobsters in the genus <i>Panulirus</i> (Decapoda: Achelata)
Seth	Frazer	Masters Student	California, University of California- Santa Barbara	Harnessing machine learning to predict genotype-phenotype relationships in opsins
Ashmita	Khanal	Doctoral Student	Texas, Texas Tech University	Unravelling the genetic basis of sex determination in black willows (<i>Salix nigra</i> ; Salicaceae)
Brock	Mashburn	Doctoral Student	Missouri, Washington University in St Louis	New perspectives on trans-oceanic dispersal, guided by a critically endangered group of tropical plants: <i>Hibiscus</i> sect. <i>Lilibiscus</i>
Peter	Nimlos	Doctoral Student	Colorado, University of Denver	Transcriptional differences in muscle fiber type in response to high altitude adaptation
Katherine	Porras-Brenes	Masters Student	Ohio, John Carroll University	Examining the Relationship Between Antipredator Adaptations in the Green and Black Dendrobatid Poison Frog
Anthony	Rajkumar*	Doctoral Student	Ontario, University of Toronto at Scarborough	The molecular evolution of visual transduction across a major habitat transition in Potamotrygonidae

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