

## Grants in Aid of Research Awards - October 1, 2021 Grant Cycle

### Grant Recipients by State

Alabama			
Name	Education Status	State	Study Title
Cassidy McColl	Masters Student	University of Alabama	The effect of mild traumatic brain injury on dopaminergic signaling
Charles Schullo	Undergraduate	University of Alabama at Birmingham	A novel organ culture system to quantify 3D tissue level deformation in tree shrew eyes.
Dasia Simpson	Doctoral Candidate	Auburn University	Multi-omic Analysis of Cyanobacteria Toxin Resistance in Daphnia pulicaria
Debit Datta	Masters Student	Auburn University	Associations between brown spot needle blight severity and foliar nutrients in loblolly pine plantations in Alabama
Emma Amjad	Undergraduate	University of Alabama	Effect of Marine Carotenoids, Fucoxanthin on Regulation of DJ-1 in the Rat Brain
Md Raiful Hasan	Doctoral Candidate	University of Alabama at Birmingham	Drone Assisted Ad Hoc Public Alert System in Emergency Management

Arkansas			
Name	Education Status	State	Study Title
Allison Litmer	Doctoral Candidate	University of Arkansas	A comparison of physiological data collected under daily temperature cycling and stable temperature regimes
Crystal Singleton	Masters Student	University of Central Arkansas	Effects of treating adult ADHD with stimulants on sleep quality, selective attention, and cognitive interference.
Sarah Heissenberger	Doctoral Candidate	University of Arkansas	Effects of water restriction on metabolic strategy, water balance, and food consumption in the arid-adapted degu (Octodon degus)

<b>California</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Emmet Norris	Doctoral Candidate	University of California - San Diego	Constraining proglacial dust emissions in Subarctic Coastal Alaska
Jessica Bradford	Doctoral Candidate	University of California - Riverside	Nomadism in the Digital Age: Sociocultural Factors Associated with Increasing Population of Full-Time RV Digital Nomads in the United States
Jonas Sotingco	Masters Student	Humboldt State University	The Role of Microbiology in Astragalus applegatei's Conservation: An Analysis of Arbuscular Mycorrhizae Fungi and Rhizosphere Auxin Effects
Joseph Novak	Doctoral Candidate	University of California - Santa Cruz	Fire's Role in Ecosystem Change: Insights from Lake Baikal
Luis Campoy	Undergraduate	University of California - Riverside	Exploring Sexual Dimorphism in Forebrain Social Neuropeptide Gene Markers Dysregulated by Maternal Transfer of the Indoor Flame Retardants PBDEs
Nicholas Russo	Doctoral Candidate	University of California- Los Angeles	A Feedback Loop Between 3D Canopy Structure and Seed Dispersal by Hornbills
Qiming Liu	Doctoral Candidate	University of California - Santa Cruz	Metal-nitrogen-carbon catalysts towards energy conversion
Timothy Liu	Doctoral Candidate	University of California - Los Angeles	Spaceflight-Induced Osteoporosis: Microgravity Effects on Non-Weight-Bearing Bone and Treatment with BP-NELL-PEG

<b>Connecticut</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Nicholas Van Gilder	Masters Student	University of Connecticut	Conservation genetics and cryptic speciation of a range-restricted terrestrial plethodontid salamander, <i>Batrachoseps diabolicus</i>

<b>Florida</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Abigail Smith	Undergraduate	Florida Southern College	How Does Variable pH and Temperature Impact Florida Stone Crab Foraging Activity
Christopher Nolte	Doctoral Candidate	University of Florida	The refugee species hypothesis: applying the concept to a critically endangered marine species
Joshua Helgoe	Doctoral Candidate	Florida International University	Proteomic Analysis of Coral Stress Response to Nitrogen Pollution
Katherine Harris	Masters Student	University of Central Florida	Impact of Mangrove-Driven Acidification on Intertidal Oyster Reefs
Natalia Teryda	Doctoral Candidate	University of Florida	Unmanned Aerial Systems as tools for green turtle population assessment in coastal marine protected areas in Uruguay.

<b>Georgia</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Anna Kozlov	Undergraduate	Emory University - Oxford College	Oxford Research Scholars
Claire Qu	Undergraduate	Emory University - Oxford College	Gut microbiome modulates D. melanogaster sociability
Jessica Anderson	Masters Student	University of West Georgia	Effect of white-nose syndrome and hibernacula conditions on the skin microbiota of endangered bats
Mariana Matos	Doctoral Candidate	University of Georgia	Conservation in changing environments: Shared spaces between humans and primates in Madagascar
Samantha Motz	Undergraduate	Georgia Institute of Technology - Main Campus	Provenance Analysis of the Bouse Formation, lower Colorado River from Detrital Zircon (U- Th)/Pb Geochronology
Timothy Odom	Doctoral Candidate	University of Georgia	Characterizing Parasite Distribution and Invasion Risk in Climate Tracking Salamanders

<b>Idaho</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Mellisa Clemons	Doctoral Student	University of Idaho	Antagonistic protein regulation in development of the visual circuit
Michael Blair	Masters Student	Boise State University	Probing the Mechanism of Nucleophile-Mediated DNA Interstrand Cross-Links by Aziridinomitosenes

<b>Illinois</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Cassandra Ceballos	Masters Student	Northeastern Illinois University	Phycoremediation: Using Algae to Treat Wastewater
Jack McKermitt	Masters Student	Illinois State University	Calling out for Love: Effects of Varying Sexual Selection Intensities on Reproductive Effort
Sadia Sultana	Doctoral Candidate	Illinois State University	Deciphering uropathogenic Escherichia coli's defense against neutrophilic antimicrobial hypochlorous acid

<b>Indiana</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Chevy Singh	Doctoral Candidate	Indiana University-Purdue University-Indianapolis	Inhibition of thioredoxin interacting protein rescues trabecular meshwork from high glucose- mediated apoptotic stress
Ngoc Tram Dao	Doctoral Candidate	Purdue University - Main Campus	Development of Potent and Cytotoxic NK Cell Therapy Products against Glioblastoma through Immunomodulation of the TIM-3 Receptor

<b>Iowa</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Deryn Makowski	Masters Student	Iowa State University	Extinction of Megalonyx in the Midcontinent

<b>Kentucky</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Caitlin White	Undergraduate	University of Louisville	Examining retinal ganglion cell function and morphology in chronic model of glaucoma

<b>Louisiana</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Anna Stebbins	Undergraduate	Louisiana State University and Agricultural & Mechanical College	Barium/Calcium Ratios in Eastern Oysters ( <i>Crassostrea virginica</i> ) as a Potential Environmental Proxy: Examining the Effects of Anthropogenic Freshwater Flooding on Development and Mortality of Oysters in the Pontchartrain Basin
Eliza Stein	Masters Student	Louisiana State University and Agricultural & Mechanical College	Prey selection by breeding and wintering Common Nighthawks ( <i>Chordeiles minor</i> )
Emily Ray	Doctoral Candidate	Louisiana State University and Agricultural & Mechanical College	Sensory and Neural Mechanisms of Parent-Offspring Recognition in Fishes
Haley Magliari	Masters Student	University of Louisiana at Lafayette	Testing pre-seismic mantle hydration in subduction zones through micro-FTIR analysis of ultramafic pseudotachylytes
Rianna Bowen	Masters Student	Louisiana State University and Agricultural & Mechanical College	Analysis of briquetage (brine-boiling pots) and the implications for understanding production and economic interactions for the Late Classic Maya in southern Belize
Rita Aoun	Doctoral Candidate	Louisiana State University and Agricultural & Mechanical College	Shoe Configuration Effects on the Third Phalanx Motion: In-Situ Biomechanical Investigation in Unaffected and Laminitic Equine Hooves

<b>Maryland</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Armaan Jamal	Undergraduate	Johns Hopkins University	Investigating the role of Synaptotagmin-1 at ribbon synapses
Farina Nawar	Masters Student	Johns Hopkins University	Investigation of ANXA2 and ANXA3 Neutralizing Antibodies as Potential Therapies for Pathologic Retinal Angiogenesis
Jane Quackenbush	Undergraduate	University of Maryland - College Park	Examining Differential Expression of <i>apn5</i> to Confirm Role in Insecticide Resistance in <i>Helicoverpa zea</i>
Maria Colt	Doctoral Candidate	University of Maryland - College Park	Elucidating the molecular pathways associated with paternal care in California mice
Neetika Rastogi	Undergraduate	Johns Hopkins University	Disruption to perineuronal nets after neonatal hypoxic-ischemia in a murine model of Alzheimer Disease

<b>Massachusetts</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Mariana Reid	Undergraduate	Westfield State University	Population genomics of the endangered pitcher plant <i>Sarracenia alabamensis</i>
Parag Juvale	Doctoral Candidate	University of Massachusetts - Amherst	Investigating the neural signaling mechanisms by which early-life light exposure stabilizes visual acuity in adulthood

<b>Missouri</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
James Baker	Undergraduate	Saint Louis University	Identifying and Verifying Novel GPCR Regulators in Yeast
Maisie Pritchett	Masters Student	Saint Louis University	The effect of Vitamin A deficiency on respiratory viral infection

<b>New Jersey</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Christine Sosiak	Doctoral Candidate	New Jersey Institute of Technology	Evaluating extinction selectivity on ecological niche occupation through time

<b>New Mexico</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
John Waller	Masters Student	New Mexico State University	Evaluation of microclimate variables responsible for roost site selection of the Arizona Myotis ( <i>Myotis occultus</i> )

<b>New York</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Amelia Hessey	Doctoral Candidate	Binghamton University	A Biocultural Approach to Understanding Longitudinal Changes in Violence Toward Black Residents of Washington, D.C.
Hagar Soliman	Masters Student	Binghamton University	Investigating Weak Inbreeder/Strong Outbreeder Hypothesis Between Three Closely Related <i>Mimulus</i> Species
Jonathan Hughes	Doctoral Candidate	Cornell University	Investigating the relationship between karyotype and local adaptation in wild house mice
Risana Chowdhury	Doctoral Candidate	Binghamton University	Evolutionary implications of neurodegenerative disease: Inflammation and longevity in post- WWII Guamanian amyotrophic lateral sclerosis
Stephanie Liefbrig	Doctoral Student	Fordham University	Investigating the unexpected relationship between the Hippo pathway and RPE phagocytosis in the fully-developed mammalian eye
Yixi Xue	Undergraduate	New York University	Effects of gene therapy on a novel mouse model of glaucoma

<b>North Carolina</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Elise Paietta	Doctoral Candidate	Duke University	Tracking viruses: Optimizing next-generation approaches to reveal anthroponotic viruses in lemurs
Jonathan Colen	Doctoral Candidate	Duke University	Investigating How Selection Maintains Species Boundaries Despite Asymmetric Introgression
Ryan Peterson	Undergraduate	Campbell University	Enzymatic dynamic kinetic benzoin condensation for the stereoselective synthesis of alpha- hydroxyketones

<b>Ohio</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Andrew Connolly	Undergraduate	Ohio State University - Main Campus	Anuran Community Occupancy Dynamics in Wayne National Forest
Anil Upreti	Doctoral Student	Miami University - Oxford	Role of FOXE3 in eye Development
Caprice Phillips	Doctoral Student	Ohio State University - Main Campus	A Data Driven Approach to Unlocking Planet Formation: The Atmospheric Retrieval of the W1234 System
Isabella Goncalves	Undergraduate	Ohio State University - Main Campus	Significance of Cell Membrane Repair in Parkinson's Disease
Mackenzie Roth	Undergraduate	Mount Saint Joseph University	Effectiveness of a Lectin Biomarker in Mouse Models of GNE Myopathy
Rebecca MacKay (Thublin)	Doctoral Candidate	Bowling Green State University-Main Campus	Understanding Parasite-Mediated Changes to Communities
Yuan Li	Masters Student	Ohio State University Agricultural Technical Institute	Mechanisms of calcium homeostasis in Malpighian tubules of the Aedes aegypti mosquito

<b>Oklahoma</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Christopher McLimans	Doctoral Candidate	University of Oklahoma - Norman Campus	Adaptive Gene Loss and Invisibility of Microcystis Across Trophic Gradients
Leigh Bailey	Masters Student	University of Oklahoma - Norman Campus	How maternal social environment programs offspring behavior and physiology

<b>Oregon</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Fatai Balogun	Doctoral Candidate	University of Oregon	Dissolved organic carbon diminishes manganese oxide-driven oxidation of chromium
Geoff Szafranski	Masters Student	Portland State University	Contaminant analysis of coastal mangrove ecosystems across different environmental conditions in Hawaii and Florida
James Frye	Masters Student	Portland State University	Applications of EBSD Techniques to Constrain Thermal Parameters of Ureilites During Catastrophic Collision

<b>Pennsylvania</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Entao Yang	Doctoral Student	University of Pennsylvania	Predicting glassy dynamics with orientations from static structure using machine learning
Joan Marie Spinelli	Doctoral Candidate	Lehigh University	Effects of hybridization on mobbing in naturally hybridizing song birds
Mary Cortese	Doctoral Candidate	Temple University	Altered herbivory interactions in the Eastern Pacific kelp forest ecosystem

<b>South Carolina</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Katerina Terwelp	Undergraduate	Clemson University	Identifying protein-protein Interactions between VnxG and candidate host proteins
Sarah Donaher	Doctoral Candidate	Clemson University	Effects of discrete radioactive material (RAM) on marine biota

<b>Tennessee</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Anchal Padukone	Doctoral Candidate	The University of Tennessee - Knoxville	Evaluating the impacts of temperature variability on physiological susceptibility to parasitism in a major agricultural pest



<b>Texas</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Blanka Bordas	Undergraduate	University of Texas at Dallas	Effects of Chronic Metformin Treatment on Steroids and Behaviors Admissible to Autism
Kaelyn Dobson	Doctoral Candidate	Texas State University	Impacts of Captive Primate Facility Characteristics on Saimiri Microbiomes: Protocol Considerations
Kaylie Waner	Masters Student	Texas Tech University	An Investigation of Discolored Teeth from Burial CC-B15, Chan Chich, Belize
Meghan Koenig	Doctoral Candidate	University of Texas at Arlington	Testing the link between natural selection and the evolution of brain size, cognition, and behavior
Morgan Thompson	Doctoral Candidate	Texas	Playing the wild card: comparing microbial communities of domesticated and wild plant species for resistance to insect herbivory
Paapa Mensah-Kane	Doctoral Candidate	Universtiy of North Texas Health Science Center	Hyperbaric oxygen therapy improves cognitive function in mice: could epigenetics play a role?
Patrick Ryan	Doctoral Candidate	Texas A&M University	Regulation of Skeletal Muscle Exosome Release by Muscle Contraction
Yu Tao	Doctoral Candidate	Universtiy of North Texas Health Science Center	Enhanced store-operated calcium entry contributes to high glucose-induced podocyte injury
Zoe Ruben	Masters Student	Texas A & M University-Corpus Christi	Corals in crisis: how temperature and nutrient fluctuations affect physiological responses of corals and their microbiome in a unique Hawaiian reef system

<b>Vermont</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Matthew Reuter	Doctoral Candidate	University of Vermont	Catalytic Phosphinidene Transfer from Primary Phosphines via d0/d0fn Compounds under Infrared Irradiation

<b>Virginia</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Bhushan Thakkar	Doctoral Candidate	Virginia Commonwealth University	Investigating the effects of Theta Burst Stimulation on different brain regions in patients with painful diabetic neuropathy
Erika Hansen	Undergraduate	College of William and Mary	Effects of Eutrophication on Oyster Flatworms in the Chesapeake Bay
Frances LaMountain	Undergraduate	Virginia Commonwealth University	Ecological climate solutions: possible beneficial impacts of Lemna minor on species richness
Jesse Janoski	Doctoral Candidate	Virginia Polytechnic Institute and State University	Investigation into the molecular mechanisms underlying circadian rhythm disruption and human cancer
Marie Vergamini	Doctoral Candidate	Virginia Commonwealth University	Exploration of 3D variation of the scapula of extant Cercopithecidae, Platyrrhines, non-human apes, and Lemuridea: understanding locomotor repertoires using geometric morphometrics
Rachel Barkey	Doctoral Candidate	George Mason University	The Effects of Young Blood Plasma Treatment Following Repetitive Mild Traumatic Brain Injury in Mice
Tetsuya Sato	Doctoral Candidate	Old Dominion University	Operator Vigilance in Advanced Air Mobility Environment: A Human-Subject Simulator Experiment

<b>Washington</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Kourtne Whitfield	Doctoral Candidate	Washington State University	Potential regulation of mucus-secretion by leptin signaling in <i>X. tropicalis</i> embryonic mucociliary epidermis, a model for respiratory epithelium
Sky Button	Doctoral Candidate	Washington State University	Using aquatic eDNA to inform the conservation of a rare and secretive terrestrial amphibian

<b>Washington, D.C.</b>			
<b>Name</b>	<b>Education Status</b>	<b>State</b>	<b>Study Title</b>
Khanh Ly	Doctoral Candidate	Catholic University of America	Probing the molecular interactions in oral mucositis induced by cancer treatments using a gingiva-on-a-chip as screening platform

Wisconsin			
Name	Education Status	State	Study Title
Madison Sutton	Doctoral Candidate	Marquette University	The influence of non-breeding carry-over effects on elevational breeding distributions
Ziyun Ye	Doctoral Student	University of Wisconsin - Madison	Manipulating anterograde transport of HSV-1 to the cornea to prevent recurrence of viral ocular disease

### International Grant Recipients By Country

Brazil			
Name	Education Status	Institution	Study Title
Natanael Gomes de Oliveira	Undergraduate	Universidade Federal do Rio de Janeiro	Rotation Curves of Spiral Galaxies in Search for a Milky Way Dark Matter Model

Canada			
Name	Education Status	Institution	Study Title
Cat Fauvelle	Doctoral Candidate	University of British Columbia Okanagan	Restoring Landscape-Level Connectivity to Allow for Natural Predator-Prey Dynamics in a Critically Threatened Parkland Forest Region
Iavania Nagendran	Doctoral Candidate	University of Toronto	A comparative approach to examine the influence of domestication on canid activity patterns
Richard Weil	Doctoral Candidate	University of Lethbridge	Is tool use afforded by object play? Answers from long-tailed macaques

Ireland			
Name	Education Status	Institution	Study Title
Adrienne Foreman	Doctoral Candidate	National University of Ireland - Galway	Abrupt climate change in Ireland: Assessing the role of 'seasonality' in the last glacial termination and ramifications for our global warming future

Nigeria			
Name	Education Status	Institution	Study Title
Mudathir Adewole	Masters Student	University of Ibadan	Urinary Porphobilinogen, Serotonin and Differential Protein Levels as Potential Biomarkers of Autism Spectrum Disorders in Nigerian Children