Grants-in-Aid of Research Awards -March 15, 2021 Grant Cycle

Anthropology			
Name	**Education Status**	**Institution**	**Study Title**
Chelsea Batchelder	Masters Student	Georgia State University	Biocultural Indicators of Early Childhood Stress in the Lambayeque Valley During the Middle and Late Sicán Periods: Internal Enamel Micro-Defects as Indicators of a Changing Environment
Danielle Jones	Doctoral Student	Ohio: Kent State University	A comparative analysis of monoamine oxidase-B expression in human, chimpanzee, and macaque brains throughout the lifespan
Eniola Afolayan	Doctoral Student	University of Virginia	Heritage Site
Franziska Albrecht	Doctoral Student	University of Western Ontario	Untold Stories of Forensic Anthropology in Latin America
Julia Dickerson	Masters Student	Hunter College of The City University of New York	Influence of group membership changes on scent marking in a wild population of Verreaux's sifaka (*Propithecus verreauxi*)
Melissa Torquato	Doctoral Student	Purdue University-West Lafayette	A Quantification of the Effect of Climate Change on the Foraging-Farming Transition in Prehistoric Eastern North America
Ming Fei Li	Doctoral Student	University of Toronto	Investigating the effects of human-wildlife interactions on activity patterns and sleep

Behavioral Ecology			
Name	**Education Status**	**Institution**	**Study Title**
Chase Anselmo	Masters Student	Louisiana State University-Baton Rouge	Effects of Reproductive Hormones on Peripheral Visual Plasticity
Courtney Linkous	Masters Student	Kennesaw State University	Anthropogenic Food Preferences and Nestling Health in European Starlings Across a Rural to Urban Gradient
Jordan Salomon	Doctoral Student	Texas A&M University-College Station	Does the *Trypanosoma cruzi* parasite manipulate triatomine foraging behavior?
Maggie Mayberry	Undergraduate Student	Southwest Missouri State University	Picky eaters: how generalist bees determine which pollen from flowers they should collect
Meghan Maciejewski	Doctoral Student	University of Illinois at Urbana-Champaign	Neural and hormonal mechanisms underlying a loss of paternal care
Phoebe Koenig	Masters Student	Cornell University	Investigating an Optimal Defense Hypothesis for Ants
Rose Wayne	Doctoral Student	Louisiana State University-Baton Rouge	Impacts of Repeated Social Defeat on Beahavior and the Brain
Zara Zimmer	Undergraduate	Villanova University	Investigating the influence of achromatic plumage brightness on extra-pair paternity in hybridizing chickadees

Cell Biology/Biochemistry			
Name	**Education Status**	**Institution**	**Study Title**
Anthony Cirrincione	Doctoral Student	Louisiana State University-Baton Rouge	Preventing Self-destruction: Role of Lipid Droplets in Toxin Resistance in a Fungal Plant Pathogen
Cameron Gardner	Doctoral Student	University of California-Riverside	Altered Activation of Social Brain Network After Maternal Transfer of Indoor Flame Retardant Toxicants
Cort Breuer	Undergraduate Student	University of Chicago	Now You See Me, Now You Don't: The Retinal Encoding of Interrupted Motion Trajectories
Dawoud Usman	Masters Student	University of Illinois at Chicago	Human Adult Hippocampal Neurogenesis and Its Correlation With Cognitive Function
Demetri Maxim	Undergraduate	University of Delaware	Pax6 Maintains Lens Epithelial Phenotype by Repressing Runx1 Expression
Gabriella Rapp	Undergraduate	East Tennessee State University	Characterization of Endocannabinoid Mutants in Early Land Plant, *Physcomitrella patens*
Genevieve Hilliard	Doctoral Student	Mansfield University of Pennsylvania	Identifying Novel Therapeutics for Arrhythmogenic Cardiomyopathy via a Molecular Band-Aid and an Antibody
Ilemona Ameadaji	Masters Student	University of Notre Dame	Investigating the roles of the Hippo pathway during retinal regeneration
Joanna Reinhold	Doctoral Student	University of Nevada-Las Vegas	Bioelectrical Signals Regulate Vertebrate Eye Regeneration
Jordan Robinson	Masters Student	Southern Illinois University-Edwardsville	Transformation of E. coli with secretion system apparatus for microbial competition assays
Joseph Bunker	Doctoral Student	Villanova University	Quantifying Anti-Tumor CTL Killer Activity in Ly-6A Gene knockout (Ly-6A-/-) Mice
Joseph Taylor	Masters Student	Oakland University	Elucidating the Role of an Armadillo Repeat Motif Protein 7 (ARMC7) in Splicing of Minor U12-Type Introns
Kang-Chieh Huang	Doctoral Student	University of Delaware	Investigation of a New RNA-binding Protein Rbm24 Associated with Anophthalmia/Microphthalmia in Early Eye Development
Karrin Leazer	Masters Student	Georgia Southern University	Agonistic and Antagonistic Interaction of 3,4,6 – Tri-substituted Pyradizines as Alpha-2 Adrenergic Ligands and Their Potential Clinical Use in Glaucoma Patients.
Katherine Giordano	Doctoral Student	University of Delaware	Localization and Functional Role of miR-31 on Mitotic Spindles During Early Development
Kathryn Driscoll	Undergraduate Student	Rowan University	Decellularized Plant Tissues for Tissue Engineering Applications

Cell Biology/Biochemistry (cont.)			
Name	**Education Status**	**Institution**	**Study Title**
Katie Li	Doctoral Student	University of Michigan Medical School	Treating proliferative vitreoretinopathy through pharmacological activation of PKM2 and metabolic reprogramming
Liam Horan-Portelance	Undergraduate	Georgetown University	Implications of the Endocannabinoid and Adenosine Receptor Systems in Parkinson's Disease
Myla Worthington	Doctoral Student	Morgan State University	The HIV-1 GP-120/CXCR4 interaction can lead to visual system damage
Rachel Williamson	Undergraduate	Ball State University	Impact of macrophages on axon regeneration in Sarm1 knockout mice
Kathryn Driscoll	Undergraduate	Rowan University	Decellularized Plant Tissues for Tissue Engineering Applications
Ting Wang	Doctoral Student	Indiana University-Purdue University, Indianapolis	Mechanistic understanding of Clusterin as an intraocular pressure regulator via lipid-dependent pathway
Victoria Chevee	Doctoral Student	University of California-Berkeley	Using Listeria monocytogenes to uncover mechanisms of dissemination of intracellular bacteria to the brain and intra-neuronal transport
Xiao Lin	Doctoral Student	University of Houston	Characterization of Hyaluronan Clusters in Mouse and Human Corneas

Chemistry			
Name	**Education Status**	**Institution**	**Study Title**
Amanda Liyanaarachchi	Doctoral Student	Rutgers, The State University of New Jersey	Dynamical Phase Transitions in Glassy Systems
Julia Hart	Undergraduate Student	Simmons College	Size analysis of MIL-101(Cr) and MIL-101(Cr)-EN for enhanced photoconversion of CO2 under visible light irradiation
Matthew Reuter	Doctoral Student	Vermont: University of Vermont	A Method for Phosphorus–Element Bond Formation via Catalytic Phosphinidene Transfer
Tze-Gang Hsu	Doctoral Student	Ohio: University of Akron	Mechanochemically-Triggered Depolymerizable Polymer

Computer Science/Mathematics			
Name	**Education Status**	**Institution**	**Study Title**
Navid Salehnamadi	Doctoral Student	University of California-Irvine	Toward Stemming Accessibility Issues in Software

Conservation Biology			
Name	**Education Status**	**Institution**	**Study Title**
Anastasia Konefal	Doctoral Student	University of New Orleans	Is genetic diversity related to resilience for clonal seagrass beds of Halodule wrightii within the Northern Gulf of Mexico?
Brendan Talwar	Doctoral Student	Florida International University	Investigating the movements of silky sharks to inform conservation strategies
Katherine Lawson	Doctoral Student	SUNY College of Environmental Science and Forestry	Impact of marine invertebrate species richness on community valuation of ecosystem services in Fiji
Krista Dodd	Masters Student	Eastern Washington University	Graduate Service Appointment
Lilly Carroll	Undergraduate Student	University of Vermont	WNS study
Lydia Catherine Olson Nixon	Doctoral Student	North Dakota State University	Perceptions of bats among American college students during the novel coronavirus (SARS-CoV-2) pandemic
Victoria Zdanowicz	Undergraduate Student	Boston University	Detecting wild orangutans (*Pongo pygmaeus*) using thermal-drones
Zander Perelman	Masters Student	Sam Houston State University	Spatial Ecology of The Eastern Massasauga Rattlesnake (*Sistrurus catenatus*) Within a Restored Habitat Site in Western Pennsylvania

Ecology			
Name	**Education Status**	**Institution**	**Study Title**
Alan Mock	Doctoral Student	Florida International University	Evaluating the differential effects of fish and invertebrate predators on the flux and quality of emergent aquatic insects
Alexis Reece	Undergraduate Student	College of William and Mary	Effects of Hybridization on Larval Cloning in Keystone Sea Star Species
Alina Tucker	Masters Student	Georgia Southern University	Influence of microplastics on copper concentration in the mussel *Geukensia demissa*
Alyson Lowell	Doctoral Student	State University of New York at Stony Brook	*Thalassia testudinum* and its influence on microbial diversity and resiliency of Porites porites
Austin Biddy	Masters Student	Texas Tech University	Can species distribution models identify genetic isolation? A case study examining genomic structure of a high-altitude, stream-specialist damselfly (Canyon Rubyspot, *Hetaerina vulnerata*) across "sky islands" in Arizona, New Mexico, and Utah
David De La Mater	Doctoral Student	Duke University	Eating at a snail's pace: indirect effects of climate change on salt marshes
Eileen Wyza	Doctoral Student	Ohio University	Examining Introgression of Wolf and Dog DNA in Ohio's Coyotes

Ecology (cont.)			
Name	**Education Status**	**Institution**	**Study Title**
Eleanor DiNuzzo	Doctoral Student	University of Massachusetts Dartmouth	How an Invasive Species Disrupts Community Structure at Different Trophic Levels Via Consumptive and Nonconsumptive Effects
Erin Keller	Doctoral Student	Washington State University	Testing underpinnings of the trade-off hypothesis of virulence
Forest Macomber	Masters Student	Loma Linda University	Ontogenetic Shift in Venom Composition of California Scorpionfish
Hannah Peterson	Masters Student	Pennsylvania State University	Effects of Abiotic Stress on Plant-Insect-Microbe Interactions
Jake Nash	Doctoral Student	Duke University	Just the sum of its parts? Testing Read's Rule on a dual-mycorrhizal host using meta-transcriptomics
Jamie Kerlin	Masters Student	California State University-Northridge	Effects of submarine groundwater discharge and competition on growth responses of Porites rus
Jamie Phelps	Doctoral Student	Louisiana State University-Baton Rouge	Why does the bordered patch butterfly (*Chlocyne lacinia*) exhibit pupal color variation?
Jordan Heiman	Doctoral Student	University of Mississippi	Ontogenetic and/or temporal differences in bacterial composition in three life stages in the coral Stylophora pistillata on a reef in the Gulf of Eilat, Red Sea
Katie Gorman	Doctoral Student	North Carolina State University	Evaluation of Urban Land Cover and Affluence on the Biodiversity of Ground Nesting Bees
Lily Day	Undergraduate Student	Villanova University	Influence of male song on extra-pair paternity within a songbird hybrid zone
Logan Billet	Doctoral Student	Yale University	Exploring the causes and consequences of ranavirus epidemics in a wood frog metapopulation experiencing recurring mass mortality events
Marissa Dyck	Doctoral Student	Ohio University	Effect of prey availability on bobcat and coyote co-occurrence
Nicole Ibanez	Masters Student	University of San Francisco	Project Title: Investigating the Chemical Origin of the Interactions between Ionic Liquid-Coated-Nanoparticles and Red Blood Cells to Achieve Lung-Cancer Targeted Drug Delivery
Nina Naghshineh	Doctoral Student	Fordham University	Engineering mitochondrial function as a therapeutic strategy to treat retinal diseases

Ecology (cont.)			
Name	**Education Status**	**Institution**	**Study Title**
Samantha Bowser	Undergraduate Student	Arizona State University	Does social signal evolution play a role in the recent range expansion of Great-tailed Grackle (*Quiscalus mexicanus*) subspecies into the United States?
Tiffany Betras	Doctoral Student	University of Pittsburgh	Quantifying Knee Cartilage Material Properties in Younger and Older Adults for Applications in Computational Modeling
Valerie Martin	Doctoral Student	Utah State University	Microbial Facilitation of Floral Exploitation in a Subalpine Pollination Mutualism
Victoria Spencer	Masters Student	Auburn University	Determining how native ant species respond to invasion by Solenopsis invicta in pine-hardwood forests
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 Kāneʻohe Bay, Hawaiʻi

Engineering			
Name	**Education Status**	**Institution**	**Study Title**
Amanda Ivy	Undergraduate Student	Boise State University	Suitability of Zeolite Reinforced Catfish Bones Derived Hydroxyapatite for Biomedical Applications
Bruna Costa	Doctoral Student	Columbia University	Engineering Mitochondrial Function as a Therapeutic Strategy to Treat Retinal Diseases
Christine Hamadani	Doctoral Student	University of Mississippi	Dose-controllable and Light-activated Biodegradable Drug Delivery Implants for Posterior Eye Diseases Treatment
Kazeem Salami	Masters Student	Ahmadu Bello University	Fabrication of a Novel Hyhdroxyapatite-Based Porous Ceramic Water Filtration Membrane for the Removal of Toxic Heavy Metals
Marissa Heino	Undergraduate Student	University of Delaware	Determining the role of mechanical stretch on ocular lens cell growth using a novel lens stretching device
Siyu He	Doctoral Student	Columbia University	Biomedical Engineering

Geoscience			
Name	**Education Status**	**Institution**	**Study Title**
Cameron Gaspord	Undergraduate Student	Gustavus Adolphus College	Assessing the impact of mass extinction on plant-mycorrhizal relationships
Jack Simmons	Masters Student	University of North Carolina at Wilmington	Evaluating exotic vs. endemic paleogeographic models for Late Jurassic terranes in the western Sierra Nevada, California

Geoscience (cont.)			
Name	**Education Status**	**Institution**	**Study Title**
Jaeeun Sohng	Doctoral Student	University of California-Davis	Driving influx of organic and inorganic carbon in agricultural soil by supplying compost, biochar and mineral co-amendments
Owen Ryerson	Undergraduate Student	University of North Carolina at Chapel Hill	Quantifying permanent deformation above the southern Cascadia subduction zone
Robert Ulrich	Doctoral Student	University of California-Los Angeles	The biomineralization of plants: Connecting *Ficus cystoliths* to climate using geochemistry and functional traits

Physics/Astronomy			
Name	**Education Status**	**Institution**	**Study Title**
Daniel Du	Doctoral Student	University of Minnesota, Twin Cities	Controlled Polarization of Pump Photons in Ultrafast Electron Microscopy Experiments
Krishna Makhija	Doctoral Student	University of Virginia	Precision Radio Instrument for Antenna Measurements (PRIAM): an external calibrator instrument for low-frequency radio telescopes.
Tai-Jan Huang	Doctoral Student	Purdue University-West Lafayette	Correlative Microstructural Characterization and Mechanical Behavior of Chondrite Meteorites

Physiology/Functional Morphology			
Name	**Education Status**	**Institution**	**Study Title**
Alexis Earl	Doctoral Student	Columbia University	Influence of the Gut Microbiome on the Stress Response in Wild Tropical Birds
Antonio Meza	Masters Student	Sam Houston State University	Effects of Cephalic Compression on the Amphisbaenian Skull
Heba Ali	Doctoral Student	Florida International University	Investigating whether Na+/K+ pumps in electric fish are affected by the thyroxine hormone in relation to the physiological demands imposed by the energetic trade-off
Jacob Harrison	Doctoral Student	Duke University	The effect of rearing density on weapon size and strike kinematics in the big claw snapping shrimp, *Alpheus heterochaelis*
James Hannon	Undergraduate Student	Western Connecticut State University	The impact of multiple, climate change-related stressors on the gill transcriptome of Atlantic killifish (*Fundulus heteroclitus*)
Kaili Boyes	Undergraduate Student	North Georgia College and State University	Analysis of the effects of warmer winter temperatures on blood metabolite levels and metabolic rate in ornate box turtles (*Terrapene ornata ornata*).
Katherine Slenker	Masters Student	Oklahoma State University	Investigating the Presence of the Carotid Rete in Carnivorans

Physiology/Functional Morphology (cont.)			
Name	**Education Status**	**Institution**	**Study Title**
Luodan Yang	Doctoral Student	Medical College of Georgia	Effect of photobiomodulation on blood-brain barrier protection in photothrombotic stroke
Theo Po	Doctoral Student	University of California-Irvine	Directional control of sea star locomotion

Psychology			
Name	**Education Status**	**Institution**	**Study Title**
Aaron Fleischer	Masters Student	University of Wisconsin-Milwaukee	Effects of 17beta-estradiol on ERK signaling and dendritic spine density in the medial prefrontal cortex and associated brain regions of ovariectomized mice
Alisa Pajser	Doctoral Student	Kansas State University	An Assessment of the Neural Mechanisms Underlying Training-Induced Suppression of Fear in the Extended Training Fear Incubation Task
Amanda Somers	Masters Student	Oklahoma State University	An Investigation Of Habituation, Pseudoconditioning, and Alpha Conditioning in Tardigrades Before and After Anhydrobiosis
Kayla Johnson	Doctoral Student	University of Wisconsin-Milwaukee	The Efficacy of Aerobic Exercise with Sleep Education to Reduce Depression and Migraine Quantity, Duration, Intensity
Michael Silverstein	Doctoral Student	Drexel University	The Relationship between ADHD and PTSD Symptoms in Trauma Exposed Adolescents with ADHD
Patrick Monari	Doctoral Student	University of Wisconsin-Madison	The role of intranasal oxytocin in promoting adult neurogenesis and social approach in male and female California mice (*Peromyscus californicus*)

Systematics/Evolutionary Biology			
Name	**Education Status**	**Institution**	**Study Title**
Elenice Fortes	Doctoral Student	State University of Campinas	The role of inflorescence evolution on the evolutionary history of the Amazonian wallaba trees (*Eperua Aubl., Leguminosae*).
Kelsey Jenkins	Doctoral Student	Yale University	Evolution of the Reptile Skull
Malcolm Peavy	Undergraduate Student	Portland State University	Vitamin D exploration of the mTOR pathway in *Austrofundulus Limnaeus*
Matthew Jenkins	Masters Student	North Carolina State University	Light up the darkness: artificial light at night and diel behavioral patterns in a stream fish
Sarah Shainker	Doctoral Student	University of Alabama at Birmingham	Investigating the eco-evolutionary maintenance of complex life cycles using freshwater red algae