

Grants in Aid of Research Awards -March 15, 2020 Grant Cycle
Grant Recipients by State

Arizona			
Name	Education Status	Institution	Study Title
Amber Jaeger	Masters Student	Arizona State University	Assessing the Facial Growth and Development of Australopithecus africanus After Second Molar Eruption
Tim Tang	Doctoral Candidate	Arizona State University	How Comparison Warps Memory: Decoding Similarity Judgment Bias in Visual Working Memory

Arkansas			
Name	Education Status	Institution	Study Title
Joseph Redinger	Masters Student	University of Central Arkansas	Effect of a Top Predator (<i>Crotaphytus collaris</i>) on Prey Populations, Community Structure, and Ecosystem Function in Ozark Glades

California			
Name	Education Status	Institution	Study Title
Elliot Chang	Doctoral Candidate	California: University of California-Berkeley	Phosphodiester Functional Groups on Bacterial Surfaces: A New Mechanistic Understanding of Rare Earth Metal Transport in the Environment
Maximillian Denys	Undergraduate Student	University of California-Riverside	Altered Activation of Social Brain Network After Maternal Transfer of Indoor Flame Retardant Toxicants
Natalie Fischer	Doctoral Candidate	University of California-Riverside	Exploring the Metabolic Mechanisms Underlying Wild Bumble Bee Foraging Behaviors
Carina Fish	Doctoral Candidate	University of California-Davis	Central California Current Regime Changes Over the Past Century as Told by Deep Sea Coral Geochemistry.
Chelsea Martin	Doctoral Candidate	Loma Linda University	Social Buffering in Southern Pacific Rattlesnakes: Effects of Social Housing on Defensive Behaviors and Stress
Angela Nazarian	Doctoral Candidate	University of California-Davis	Long-term Memory for Nostalgic Stimuli Across the Lifespan: An Examination of Episodic and Semantic Memory Using Naturalistic Stimuli Presented Across Three Modalities

California (cont.)			
Name	Education Status	Institution	Study Title
Meghan Shea	Doctoral Candidate	Stanford University	Ocean Acidification: A Coupled Biological and Chemical Approach to Assessing the California Current System
Dylan Vasey	Doctoral Candidate	University of California-Davis	On the Hunt for an Enigmatic Suture in the Greater Caucasus: Using Provenance of Jurassic-Cretaceous Sedimentary Rocks to Test the Dizi Fault
Casandra Walker	Doctoral Candidate	University of Southern California	Identification of the transcription factor Foxa3 as a major target of In Utero exposure to Low Doses of Genistein and DEHP in Adult Rat Testis

Colorado			
Name	Education Status	Institution	Study Title
Alexander Goetz	Doctoral Candidate	University of Denver	Quantifying Effects of Disturbance and Resource Availability on Tree Morphology Using Airborne Lidar
Uma Knaven	Undergraduate Student	University of Denver	Influence of Urbanization on Hybridization of Cottontail Rabbits

Delaware			
Name	Education Status	Institution	Study Title
Adam Faranda	Doctoral Candidate	University of Delaware	Pax6 Maintains Lens Epithelial Phenotype by Repressing Runx1 Expression
Shaili Patel	Doctoral Candidate	University of Delaware	Investigation of a New RNA-binding Protein Rbm24 Associated with Anophthalmia/Microphthalmia in Early Eye Development
Carolyn Remsburg	Doctoral Candidate	University of Delaware	Localization and Functional Role of miR-31 on Mitotic Spindles During Early Development

District of Columbia			
Name	Education Status	Institution	Study Title
Kailie Batsche	Masters Student	George Washington University	Postcranial Variation in Mountain Gorilla Limb Bones
Joshua Porter	Undergraduate Student	George Washington University	Reconstructing Paleoenvironments Using Quantitative Mesowear in East Turkana, Kenya
Tyler Rippel	Doctoral Candidate	Georgetown University	How Does Sea Level Rise and Habitat Fragmentation Impact the Biotic Communities and Carbon Cycling of a Foundational Plant Species?

Florida			
Name	Education Status	Institution	Study Title
Benjamin Plier	Doctoral Candidate	Florida State University	The Role of Digestive System Microbial Symbionts in Alleviating the Nutrient Loading Stress of a Livebearing Fish, <i>Heterandria formosa</i>
Natalie Claunch	Doctoral Candidate	University of Florida	Determining Phylogeography of an Invasive Lizard with Rapid Range Expansion
Jan Dahrendorff	Masters Student	University of South Florida	Differentially Expressed Genes Following Glucocorticoid Exposure in Microglia as Potential Biomarkers of PTSD

Georgia			
Name	Education Status	Institution	Study Title
Abigail Dwire	Masters Student	Georgia Southern University	Home-range Size of Wintering Henslow's Sparrows (<i>Centronyx henslowii</i>) in Power Line Right-of-Ways
Jack Philp	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.
Joshua Anderson	Masters Student	Georgia Southern University	Stingray Germs and Worms: Diversity and Interaction of the Gut Microbiome and Helminth Community
Li Wang	Doctoral Candidate	University of Georgia	Genome-Wide Association Study to Identify Genes Responsible for Fluopicolide Resistance in Natural Field Populations of <i>Phytophthora capsici</i>
Anik Regan	Masters Student	University of Georgia	Sequence-stratigraphic Control on the Continental Fossil Record: a Test

Idaho			
Name	Education Status	Institution	Study Title
Elise Stacy	Doctoral Candidate	University of Idaho	Evaluating Genetic Structure of Wolverines (<i>Gulo gulo</i>) in Northern Alaska: Populations on a Changing Landscape
William Unger	Doctoral Candidate	Boise State University	Power Analysis of Base 3 SPN Ciphers

Illinois			
Name	Education Status	Institution	Study Title
Jennifer Ding	Doctoral Candidate	University of Chicago	Now You See Me, Now You Don't: The Retinal Encoding of Interrupted Motion Trajectories
Ahmed Disouky	Doctoral Candidate	University of Illinois at Chicago	Human Adult Hippocampal Neurogenesis and Its Correlation With Cognitive Function
Natalia Ershova	Doctoral Candidate	University of Chicago	Ecological Importance of Trematode Parasites in Intertidal Communities
Wieteke Holthuijzen	Masters Student	Northern Illinois University	Hide and Seek: Uncovering the Diet and Ecological Effects of Invasive House Mice on Islands
Elena Loke	Masters Student	Northwestern University	Incorporating Phased Alleles to Reconstruct a Recent and Rapid Radiation
Melissa Manus	Doctoral Candidate	Northwestern University	The Influence of the Social Environment on the Infant Skin Microbiome
Furui Zhang	Doctoral Candidate	Northwestern University	Design and Fabrication of Zr-MOF/PEEK Membranes for the Electro-assisted Removal of Phosphate and Arsenate From Groundwater

Indiana			
Name	Education Status	Institution	Study Title
Meng Jia	Doctoral Candidate	University of Notre Dame	Investigating the roles of the Hippo pathway during retinal regeneration

Kansas			
Name	Education Status	Institution	Study Title
Caitlin McLean	Undergraduate Student	Kansas State University	Modeling Prodromal Stage Schizophrenia Using a Novel Devaluation Task to Detect Neural Compensation

Louisiana			
Name	Education Status	Institution	Study Title
Maria Izabel Costa de Novaes	Doctoral Candidate	Louisiana State University-Baton Rouge	Preventing Self-destruction: Role of Lipid Droplets in Toxin Resistance in a Fungal Plant Pathogen
Monica Brady	Doctoral Candidate	Tulane University	Do Abiotic Conditions and Plant Population Genetics Structure Root Fungal Communities Across a Landscape?

Maryland			
Name	Education Status	Institution	Study Title
Jesse Gordon	Doctoral Candidate	Johns Hopkins University	Light-Mediated O–O Cleavage at Nonheme Iron Centers for C–H Bond Functionalization
Shirley Wu	Undergraduate Student	Johns Hopkins University	Investigating the Protective Role of Rhodopsin in Light-induced Retinal Degeneration
William Weber	Doctoral Candidate	University of Maryland, College Park	Understanding How Social Dynamics Drive Variation in Male Fertility

Massachusetts			
Name	Education Status	Institution	Study Title
Michelle Chen	Undergraduate Student	Northeastern University	Synthesis and Characterization of Hole Transporting Materials for Perovskite Solar Cells
Lian Guo	Doctoral Candidate	University of Massachusetts Amherst	Understanding Differential Rates of Climate-driven Range Shifts in River Fishes
Patricia Levasseur	Masters Student	University of Massachusetts Amherst	Evaluating the Value of Public Participation in Diamond-backed Terrapin Monitoring Using Visual Head Counts
Joanna Lee	Doctoral Candidate	Boston University	Differential Expression Between Parasitic and Free-living Life Stages of <i>Edwardsiella lineata</i> Anemone for Insights in Evolution of Parasitism
Christian Lockwood	Undergraduate	Williams College	Imaging and Analysis of the December 14, 2020, Total Solar Eclipse

Michigan			
Name	Education Status	Institution	Study Title
Dominic Mier	Masters Student	Oakland University	Elucidating the Role of an Armadillo Repeat Motif Protein 7 (ARMC7) in Splicing of Minor U12-Type Introns

Missouri			
Name	Education Status	Institution	Study Title
Stephanie Sanders	Undergraduate Student	Missouri State University	Chemical Cues
Nebraska			
Name	Education Status	Institution	Study Title
Laura Segura	Doctoral Candidate	University of Nebraska at Lincoln	Microhabitat-level Temperature Changes and Their Effects on Small Predatory Ectotherms
Nevada			
Name	Education Status	Institution	Study Title
Cindy Kha	Doctoral Candidate	University of Nevada-Las Vegas	Bioelectrical Signals Regulate Vertebrate Eye Regeneration
New York			
Name	Education Status	Institution	Study Title
Palani Akani	Doctoral Candidate	Columbia University	How Does Soil Fertility Affect Foliar Nutrient Uptake and Leaching in a Humid Tropical Forest?
Anna McPherran	Doctoral Candidate	Stony Brook University	Evaluating Past Population Changes of Caribbean Hutias with Genomics to Infer Causes of Extinction
Jeffrey Spear	Doctoral Candidate	New York University	Integration of Suspension-related Traits in Hominoids
William Thomas	Doctoral Candidate	Stony Brook University	Identifying Ceramic Production within Virginia's Shenandoah Valley
Tammy Wang	Undergraduate Student	Vassar College	Imaging Astrocyte Activity in the Medial Prefrontal Cortex During Behavior Using Miniscopes
North Carolina			
Name	Education Status	Institution	Study Title
Dylan Dutton	Doctoral Candidate	University of North Carolina at Chapel Hill	Measuring Hubble's Constant from Optical Counterparts of Gravitation
Yusen Pei	Undergraduate Student	North Carolina State University	Solar Energy Harvesting by Transparent Organic Solar Cells
Jacqueline Staab	Masters Student	Appalachian State University	Using a Detection Dog to Locate, Then Map Alpine Bombus Nests in High-resolution Using Structure-from-Motion
Ellen Titus	Masters Student	East Carolina University	The Effect of Stochastic Pulsed Predation on a Simple Freshwater Ecosystem

Ohio			
Name	Education Status	Institution	Study Title
Gretchen Baker	Doctoral Candidate	Ohio State University	Influence of Naturalistic Child Postures on Belt Fit in Belt-Positioning B
Megan Corcoran	Doctoral Candidate	University of Cincinnati	Assessing a Paired Hydrogen and Oxygen Isotope Approach to Track Evaporation for Paleoclimate Studies
Jacob Clyne	Masters Student	Ohio State University	A Dynamic Water Table and its Impact on Water Quality, Microbial Diversity, and CO2 Efflux
Xingyu He	Doctoral Candidate	University of Cincinnati	Dose-controllable and Light-activated Biodegradable Drug Delivery Implants for Posterior Eye Diseases Treatment
Julia Joos	Doctoral Candidate	Ohio University	Thermal Ecology of Two Species of Desert Tortoises in Mexico, <i>G. evgoodei</i> and <i>G. morafkai</i>
Abigail Kelly	Doctoral Candidate	University of Cincinnati	Testing Dietary Stress as a Contributor to end-Pleistocene Horse Extinction in North America
Catherine Nield	Masters Student	University of Cincinnati	Calibration of Land Snail Shell $\delta^{18}O$ at High Arctic Tundra Biomes
Natalia Zappernick	Masters Student	Ohio State University	Techno-Economic Analysis of Aquaponics System

Oregon			
Name	Education Status	Institution	Study Title
Rebecca Talbot	Masters Student	Portland State University	Spatial and Seasonal Variations of Microplastic Concentrations in Oregon
Claire Tortorelli	Doctoral Candidate	Oregon State University	Long-term Wildfire, Environmental, and Societal Impacts of Annual Grass Invasion in the Inland Northwest

Pennsylvania			
Name	Education Status	Institution	Study Title
Dylan Davis	Doctoral Candidate	Pennsylvania State University	Studying the Effects of Environmental Change on Human Settlement Behavior in Southwest Madagascar
James Fisher	Masters Student	Lehigh University	measurements to constrain an extensional front in the Central Apennines, Italy
Madison Honer	Masters Student	Saint Joseph's University	3D-Printed Microfluidic Sorting of Sleeping <i>Caenorhabditis elegans</i>
Catherine Hoover	Undergraduate Student	Mansfield University of Pennsylvania	Identifying Novel Therapeutics for Arrhythmogenic Cardiomyopathy via a Molecular Band-Aid and an Antibody

Pennsylvania (cont.)			
Name	Education Status	Institution	Study Title
Angela Sophia Magahis	Undergraduate Student	Villanova University	Quantifying Anti-Tumor CTL Killer Activity in Ly-6A Gene knockout (Ly-6A ^{-/-}) Mice
Jordan Oleginski	Doctoral Candidate	Saint Joseph's University	A CRISPR Approach for Studying G-protein Coupled Receptor Signaling in <i>Caenorhabditis elegans</i>
Kim Taylor	Undergraduate Student	Waynesburg College	Caspase-8 Activator Marine Natural Product as a Payload for a Novel Antibody-drug Conjugate Cancer Therapy
Cara Webster	Undergraduate Student	University of Scranton	Army Ant Raiding as a Learning Tool for Bat Foraging Behavior

South Carolina			
Name	Education Status	Institution	Study Title
Daniel Malagon	Doctoral Candidate	Clemson University	Nested Metapopulations
Rhett Rautsaw	Doctoral Candidate	Clemson University	Testing the Influence of Competition on Venom Evolution in Sky-island

Tennessee			
Name	Education Status	Institution	Study Title
Deepshila Gautam	Masters Student	East Tennessee State University	Characterization of Endocannabinoid Mutants in Early Land Plant, <i>Physcomitrella patens</i>
Valaria Torres	Undergraduate Student	Christian Brothers University	Characterization of WNT10B-Stromal Tumor Microenvironment (CD146 and MMP9) and WNT10B-Epithelial Biomarkers (HMGA2-EZH2) in Highly Chemoresistant TNBC and Mouse Mammary Gland Tumors.

Texas			
Name	Education Status	Institution	Study Title
Amanda Beckman	Doctoral Candidate	Texas A&M University-College Station	Struttin' with Two Brothers Versus Eight Cousins: Investigating How Relatedness Influences Cooperative Coalitions
Kaitlyn Howell	Doctoral Candidate	University of Texas at Arlington	Testing the Connection between Brain Size and Survival in Novel Environments

Texas (cont.)			
Name	Education Status	Institution	Study Title
Santoshi Ramachandran	Doctoral Candidate	University of Houston	Role of Superior Colliculus in Fixation Preference During a Delayed Saccade Task in Strabismic Nonhuman Primates
Anais Zimmer	Doctoral Candidate	University of Texas at Austin	Future of Periglacial Landscape: Alpine Ecosystems and Deglaciation in the Tropical Andes and French Alps

Virginia			
Name	Education Status	Institution	Study Title
Rachel Barkey	Doctoral Candidate	George Mason University	Blood Transfusion from Young Wildtype Mice Alters the Behavior and Neuropathology of Aged Alzheimer's mice with hTau
Yasith Jayawardana	Doctoral Candidate	Old Dominion University	Analytic Streams for Sensory Data – Can Data Analytics be Streamed Alongside Sensory Data and Metadata to Build Efficient Data Pipelines?
Augustin Kalytiak-Davis	Undergraduate Student	College of William and Mary	Environmentally-Cued Hatching in Polyclad Flatworms
Xianlin Zou	Doctoral Candidate	Virginia Polytechnic Institute and State University	Investigation on How DNA Damage Causes Circadian Phase Resetting

Washington			
Name	Education Status	Institution	Study Title
José Garrido	Masters Student	Central Washington University	Comparative Ecology of Semi-urban and Wild Populations of <i>Kinosternon chimalhuaca</i>
Elena Stiles	Doctoral Candidate	University of Washington	Linking Cordilleran Uplift to Landscape Aridification in the Northeastern Andes using Phytolith Analysis
Bernardo Traversari	Masters Student	Washington State University	Importance of the Early Environment on Amphibian Development and Behavior: Applications for Head-start, Translocation, and Reintroduction Programs

Wisconsin			
Name	Education Status	Institution	Study Title
Melissa Morris	Doctoral Candidate	University of Wisconsin-Madison	Characterizing Gas in Galaxy Groups Using Radio Galaxies with Bent Jets
Anthony Taylor	Doctoral Candidate	University of Wisconsin-Madison	Narrowband Selection and Spectroscopic Analysis of z=5.7-6.6 Lyman Alpha Emitters
Richard Ward	Doctoral Candidate	University of Wisconsin-Milwaukee	Neurocognitive Mechanisms Underlying the Interaction Between Anxiety, Cognitive Control, and Implicit Racial Bias

International Grant Recipients by Country

Australia			
Name	Education Status	Institution	Study Title
Hayley Roberts	Doctoral Candidate	Australian National University	The Babysitters Club: Hormonal Aspects of Non-parental Infant Care in

Canada			
Name	Education Status	Institution	Study Title
Sereena Moore	Masters Student	McGill University	Changes in Neurogenesis Leading up to Fall Migration in Juvenile and Adult European Starlings Exposed to Chlorpyrifos, a Widely-used Organophosphate Pesticide
Anne Xuan-Lan Nguyen	Undergraduate	McGill University	Mining Electronic Health Records: An Association Between Pre-Operative Frailty and Post-Operative Outcomes in Older Patients of Ethnic-Minority Background Undergoing Glaucoma Surgery
Jill Sanderson	Doctoral Candidate	University of Toronto	The Evolution of Signal Complexity in a Diverse Tropical Lizard Radiation
Rebecca Smith	Masters Student	University of Saskatchewan	Mechanisms of Climate-mediated Effects on Intraspecific Torpor Profiles in Columbian Ground Squirrels (<i>Uroditellus columbianus</i>)
Shasta Webb	Doctoral Candidate	University of Calgary	How Does the Gut Microbiome in a Long-lived Host Respond to Short-term Environmental Change?
Mackenzie Woods	Masters Student	University of Victoria	The Impacts of Boat Noise on Acoustic Courtship and Reproductive Success in the Plainfin Midshipman Fish

Nigeria			
Name	Education Status	Institution	Study Title
Etukessien Akpan	Doctoral Candidate	Ahmadu Bello University	Suitability of Zeolite Reinforced Catfish Bones Derived Hydroxyapatite for Biomedical Applications