

Grants-in-Aid of Research Awards
October 15, 2015 Grant Cycle

Alphabetical by Recipient's Name

Grant Recipient	Research Field	Institution	Study Title
Md. Samrat Alam	Petrology/Geochemistry	Alberta: University of Alberta	Nickel (II) and Zinc (II) adsorption on biochar: Surface complexation modeling (SCM) and X-ray absorption spectroscopy (XAS) analyses
Haylee Archer	Physics/Astronomy	North Dakota: University of North Dakota	Probing Star Formation in Cluster Dwarf Galaxies via H-alpha Imaging
Timothy Audam	Cell Biology/Biochemistry	Tennessee: East Tennessee State University	Characterization Of a SBIP-470, a Family 1 Lipid Transfer Protein and its Role in Stress Signaling of Plants
Jillian Austin	Psychology	Wisconsin: University of Wisconsin-Milwaukee	A Technology-aided Approach to Teaching Parents to Create a Safe Sleep Environment
Elizabeth Barnes	Ecology	Colorado: University of Denver	Competition and community interactions of two generalist web-building caterpillars
Jessica Baylor	Physiology/Functional Morphology	Pennsylvania: Lafayette College	Exploring Potential Protective Properties of Biliverdin and Heme Oxygenase-1 Expression during Immune Challenges in Northern Bobwhite
James Beer	Petrology/Geochemistry	Illinois: Northeastern Illinois University	A Threat in Virunga: Understanding Explosive Eruptions of Nyamurgira
Vienna Behnke	Psychology	Wisconsin: University of Wisconsin-Milwaukee	The Effects of Fastigial Nuclei Inactivation on Social Behavior in the Rat
Venkatadheeraj Bolla	Physiology/Functional Morphology	California: California State University-Fullerton	Unraveling the Filtering Mechanics of Mobulid and Manta Ray Gill Rakers
Soumili Bose	Chemistry	India: JSS College of Pharmacy	Looking at a Medicine
Kiristin Budd	Conservation Biology	Missouri: University of Missouri-Columbia	Population Fragmentation of the Asian Elephant in Laos
Elizabeth Bullard	Paleontology/Sedimentation	Ohio: University of Cincinnati	Ecological responses of land snail communities from Tenerife, Canary Islands, to Quaternary environmental change

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Travis Calkins	Physiology/Functional Morphology	Ohio: Ohio State University	Evaluating the roles of gap junctions in mosquito blood meal digestion and egg production
Lauren Carley	Ecology	North Carolina: Duke University	Quantifying feedbacks between ecology and evolution in natural plant populations: linking functional traits and community ecology to better understand selection in nature
Tyler Carrier	Systematics/Evolutionary Biology	North Carolina: University of North Carolina at Charlotte	Larval microbiome: an inter-kingdom symbiosis for survival and adaptation?
Gina Marie Chaput	Cell Biology/Biochemistry	Massachusetts: University of Massachusetts Amherst	Microbial ecology and genomics of carbonosome synthesis in rhizosphere soils
Yu-Chieh Chen	Cell Biology/Biochemistry	California: University of California-Riverside	Cellular basis of pharyngeal taste in <i>Drosophila</i>
Lauren Cirino	Ecology	Florida: University of Florida	Disentangling male quality and territory quality on female mate choice
Kristen Content	Behavioral Ecology	North Carolina: Appalachian State University	Repeatability of stress physiology and nest defense behavior in tree swallows (<i>Tachycineta bicolor</i>)
Clara Cooper-Mullin	Physiology/Functional Morphology	Rhode Island: University of Rhode Island	How Do Birds Cope with Oxidative Stress During Migration?
Meli'sa Crawford	Physiology/Functional Morphology	Arizona: Arizona State University	The impact of a shifting gut microbiota on cardiovascular disease in periadolescent rats
Eric Dai	Physiology/Functional Morphology	Missouri: Washington University in St. Louis	How the Embryonic Chick Brain Twists: Uncovering the Biomechanical Origins of Morphogenesis in the Embryonic Chick
Carter Daniels	Psychology	Arizona: Arizona State University	The Synergistic Effects of Nicotine and Reinforcer Value on Reinforcer Habituation

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Biplabendu Das	Behavioral Ecology	India: Indian Institute of Science	Can ants assess the level of viral infection of an infected nestmate and change their behavior accordingly to prevent uncontrolled disease spread
Russell Dauksis	Ecology	California: California State University-Northridge	The effect of top-down trophic interactions in eelgrass (<i>Zostera marina</i>) communities
Sophia Dent	Anthropology	North Carolina: University of North Carolina at Chapel Hill	The Applications of Dental Calculus for Dietary Reconstruction
Stephanie Douglas	Physics/Astronomy	New York: Columbia University	Anchoring stellar rotation and activity at 650 Myr
Raymond Dunn	Cell Biology/Biochemistry	District of Columbia: Georgetown University	Combating the Emergence of Epilepsy using Kappa Opioid Receptors
Marisa Egan	Cell Biology/Biochemistry	Pennsylvania: Saint Joseph's University	Investigation of the Role of the sRNA RyhB as a Posttranscriptional Regulator of the Locus of Enterocyte Effacement in Enteropathogenic <i>Escherichia coli</i>
Annette Evans	Ecology	Connecticut: University of Connecticut	The effects of incubation temperature on the maintenance of a polymorphism in the eastern red-backed salamander (<i>Plethodon cinereus</i>)
Gates Failing	Ecology	Pennsylvania: Elizabethtown College	The Community Dynamics of Microbial Resuspension in the Indoor Built Environment
Daniela Flores	Systematics/Evolutionary Biology	Iowa: Iowa State University	Epigenetic predisposition to sex in turtle embryos as a model for temperature-dependent sex determination
Shelby Foster	Cell Biology/Biochemistry	Pennsylvania: Pennsylvania State University	Effects of Estrogen Matrix Modifications on Breast Cancer Metastasis to Bone

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Brett Frye	Behavioral Ecology	South Carolina: Clemson University	Prenatal androgen exposure in female callitrichine primates: immediate and prolonged effects on morphology, physiology, and behavior
Morgan Furze	Ecology	Massachusetts: Harvard University	Long term responses of nonstructural carbohydrates to elevated carbon dioxide and temperature in boreal peatland bog forest vegetation
Sarah Gallagher	Systematics/Evolutionary Biology	Michigan: Northern Michigan University	Comparative Phylogeography of a Beringian Mammal-Parasite Assemblage
Matthew Gallart	Ecology	Kansas: Kansas State University	Experimental natural selection of big bluestem ecotypes across the Great Plains: A novel test for the strength of local adaptation
Michelle Gaynor	Conservation Biology	Florida: University of Central Florida	Assessing Genetic Diversity within Natural Populations of Smooth Cord Grass to Ensure Effective Restoration Efforts
Sean Gaynor	Petrology/Geochemistry	North Carolina: University of North Carolina at Chapel Hill	Tracing Shifts in Magma Generation Through Ore Deposits
Alok Ghanekar	Engineering	Rhode Island: University of Rhode Island	Design and fabrication of selective thermal emitters for TPV applications
Cassie Gould	Physiology/Functional Morphology	District of Columbia: American University	Examining the long-lasting effects of endocrine disruption on retinal development
Sarah Guindre-Parker	Ecology	New York: Columbia University	Does environmental variability shape the prevalence of malaria parasites in a tropical bird?
Genevieve Haas	Systematics/Evolutionary Biology	Michigan: Northern Michigan University	Biogeography and co-evolution of a Beringian tapeworm species complex

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James Ham	Cell Biology/Biochemistry	Pennsylvania: Carnegie Mellon University	Characterization of a Biotin-Binding Immune Receptor with an Engineered Avidin Binding Domain in Primary T Cells
Jason Henry	Cell Biology/Biochemistry	Illinois: Southern Illinois University-Carbondale	Arabinogalactan Proteins in the Development of Flagellated Sperm Cells in Moss
Elise Hinman	Ecology	New York: Syracuse University	Plant carbon storage: The importance of savings in a catastrophe-ridden world
Elizabeth Hiroyasu	Conservation Biology	California: University of California-Santa Barbara	Assessing the impact of wild pig disturbance on understory plant communities in mixed oak woodlands
Samuel Hirsh	Cell Biology/Biochemistry	Maryland: St. Mary's College of Maryland	Molecular Determinants of Optogenetic Restoration of Movement in a Mouse Model of Parkinson's Disease
Taylor Hodgdon	Hydrology/Geomorphology	New Hampshire: University of New Hampshire	Developing a chronology for thinning of the Laurentide Ice Sheet in New Hampshire during the last deglaciation
Ryan Holden	Psychology	Illinois: Southern Illinois University-Carbondale	The combinational use of spatial and discrimination skills as a cognitive therapy following traumatic brain injury in juvenile rats
Genevieve Housman	Anthropology	Arizona: Arizona State University	Assessment of DNA Methylation Patterns in Primate Skeletal Tissues
Maria Jaramillo	Behavioral Ecology	Texas: Trinity University	Neural Processing of Visual Information: An Analysis of Brain and Behavior in Green Anole Lizards
Sarah Jaumann	Behavioral Ecology	Minnesota: University of Minnesota, Twin Cities	The Influence of Experience on Decision-making in Changing Environments

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Robert Johnson	Ecology	Florida: University of Florida	Green turtles and blue carbon: effects of grazing on carbon release from seagrass meadows
Emily Judd	Paleontology/ Sedimentation	New York: Syracuse University	Antarctic Seasonality in a Greenhouse Earth: A High-Resolution Record of Changes in Eocene Temperature and Precipitation
Bahram Kheradmand	Behavioral Ecology	California: University of California-San Diego	Neurobiology of alarm pheromone perception in Africanized honey bees
Anna Klompen	Ecology	Virginia: College of William and Mary	Effects of historic and current food availability on the development of <i>Stylochus ellipticus</i> in the Chesapeake Bay
Grace Kroner	Cell Biology/Biochemistry	Michigan: University of Michigan-Ann Arbor	High-Resolution Identification of Bacterial Global Regulator Binding Sites
Phuong Thai Lam	Cell Biology/Biochemistry	Ohio: Miami University Ohio	Engineering Human Induced Pluripotent Stem Cells to Assay for Retinal Epithelium to Neural Retina Transdifferentiation
Alexandra Lawrence	Ecology	California: San Francisco State University	Effects of habitat fragmentation on genetic diversity of <i>Borrelia burgdorferi</i>
Yujeong Lee	Chemistry	Illinois: University of Illinois at Urbana-Champaign	DNA-Catalyzed DNA Cleavage by Bleomycin-Like Reaction Pathways
Brenna Levine	Behavioral Ecology	Arkansas: University of Arkansas at Fayetteville	Are we selecting for 'untrappable' snakes? A genomic study of kinship and reproductive output in the context of long-term trappability data in Guam's invasive Brown Treesnake (<i>Boiga irregularis</i>)
Cheng-Yu Li	Behavioral Ecology	Alabama: University of Alabama at Tuscaloosa	Neural mechanisms guiding behavioral responses to social experience

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Fan Li	Ecology	Texas: University of Houston	Responses of tidal freshwater marsh plants to pulses of elevated salinity
Yang Lin	Engineering	Illinois: University of Illinois at Chicago	Paper-based green bio-battery for portable electronics
Baoming Liu	Cell Biology/Biochemistry	Tennessee: University of Tennessee-Memphis	Role of TRIM56 phosphorylation in antiviral innate immunity
Salahadin Lotfi	Psychology	Wisconsin: University of Wisconsin-Milwaukee	Improving Inhibitory control through Emotional Working Memory Training of Anxious Individuals
Brandon Lucke-Wold	Cell Biology/Biochemistry	West Virginia: West Virginia University	Stroke and Alzheimer's Disease: Shared Mechanisms of Vascular Disruption
William Ludt	Systematics/Evolutionary Biology	Louisiana: Louisiana State University-Baton Rouge	Phylogenomic Resolution of a Historically Troublesome Order of Fishes
Rebecca Maher	Ecology	Texas: Rice University	A Carbonate Tug-of-War: Understanding bioerosion in a healthy ecosystem
Calvin Mako	Tectonics/Geophysics	Virginia: Virginia Polytechnic Institute and State University	Shear Heating in the Norumbega Fault zone, central Maine
Caitlin Maraist	Ecology	Oregon: Portland State University	Effects of Endophytic Fungi on Sexual Effort and Chemical Cues of the Dioicous Moss, <i>Ceratodon Purpureus</i>
Daniel Mason	Conservation Biology	North Carolina: Appalachian State University	Population genetics and viability assessment of the federally threatened Alabama spike (<i>Elliptio arca</i>) in the Mobile River Basin
Megan Mave	Hydrology/Geomorphology	Ohio: Ohio State University	Tank experiment to quantify fate of algal toxins in shallow coastal sediments
Aaron McCarty	Anthropology	New Mexico: University of New Mexico	Life in Cooperative Communities: Social Support, Stress, and Generosity

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Grace McClellan	Engineering	Tennessee: Tennessee Technological University	Can a More Diverse Polyphosphate Accumulating Organisms Community Improve Functional Stability of the Enhanced Biological Phosphorus Removal Process?
Brianna McHorse	Paleontology/ Sedimentation	Massachusetts: Harvard University	Causes and consequences of evolutionary digit reduction in fossil horses: a macroevolutionary and biomechanical investigation
Hannah McMillan	Cell Biology/Biochemistry	North Carolina: Duke University	Phosphatidylserine localization during antiviral innate immune signaling
Michael McQuillan	Behavioral Ecology	Pennsylvania: Lehigh University	A Test of Spatial Memory Ability as a Reproductive Isolating Barrier
Arianne Messerman	Conservation Biology	Missouri: University of Missouri-Columbia	Assessing stage-specific survival rates for threatened complex lifecycle amphibians
Jacob Mey	Physiology/Functional Morphology	Illinois: University of Illinois at Chicago	Glyoxalase-1 in Skeletal Muscle with Aging and Exercise
Jess Millar	Cell Biology/Biochemistry	Oregon: Portland State University	Horizontally acquired tRNA facilitates adaptation to an extreme environment
Briana Mittleman	Systematics/Evolutionary Biology	North Carolina: Duke University	Scr Mapping study in <i>D. subobscura</i>
Teresa Monsue	Physics/Astronomy	Tennessee: Vanderbilt University	Searching for Precursors to Solar Flare Triggers
Cristina Mottillo	Chemistry	Quebec: McGill University	Environmentally-friendly synthesis of porous metal-organic materials using supercritical carbon dioxide
Madeleine Naylor	Behavioral Ecology	Oklahoma: Oklahoma State University	Males on Birth Control: Elucidating How 17-Ethinylestradiol Decreases Reproductive Success Through Parental Care Observation
Katie Needham	Physiology/Functional Morphology	North Dakota: North Dakota State University	Life-history transitions driving timing of breeding in a partial migratory population

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Jillian Neeley	Physics/Astronomy	Iowa: Iowa State University	Using crowded field photometry to nail down the cosmic distance ladder
Maria A Nieves Colon	Anthropology	Arizona: Arizona State University	Reconstructing the Peopling of Pre-Columbian Puerto Rico through Ancient DNA Analysis
Jamie Palmer	Psychology	Pennsylvania: Saint Joseph's University	Consequences of Maternal Prozac Use on Offspring Plasma
Nehalkumar Patel	Engineering	Louisiana: Louisiana Tech University	Hydrogels for regeneration of cardiomyocytes
Louis Penrod	Behavioral Ecology	Florida: Florida Institute of Technology	The interactive effect of temperature and habitat complexity on the feeding performance of the invasive <i>Pterois volitans</i>
Rachel Perlman	Anthropology	New York: State University of New York at Stony Brook	The energetics of male reproductive strategies in geladas (<i>Theropithecus gelada</i>)
Alicia Elena Ramirez	Cell Biology/Biochemistry	California: University of California-Riverside	Investigating the Underlying Gene Markers of Renin Angiotensin Aldosterone System Over activation in PBDE-mediated Hypertension
Lyndsay Rankin	Ecology	Illinois: Northern Illinois University	Using remote imagery to measure the nearshore recovery of seabird islands following rodent eradication in New Zealand
Nicholas Ray	Ecology	Massachusetts: Boston University	Does Oyster Mediated Trace Metal Cycling Promote Nitrogen Fixation by Cyanobacteria?
Nathan Redman	Cell Biology/Biochemistry	Idaho: Boise State University	Elucidating Mechanistic Principles of Splicing and Stability in Metazoan Cells
Kelcee Smith	Conservation Biology	Louisiana: Louisiana State University-Baton Rouge	Assessing temporal variation in genetic diversity of endangered Smalltooth Sawfish (<i>Pristis pectinata</i>) with museum specimens

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Shane Smith	Engineering	Texas: Texas A&M University-Corpus Christi	Mapping pigment distribution in mud samples through hyperspectral imaging
Kyle Snow	Engineering	Minnesota: University of Minnesota, Twin Cities	Spatial coherence in ultrafast electron microscopy
Kimberly Sokal	Physics/Astronomy	Virginia: University of Virginia	The Importance of Wolf-Rayet Star Feedback Contributions to the Evolution of Massive Star Clusters
Andrea Spence-Aizenberg	Anthropology	Pennsylvania: University of Pennsylvania	The role of chemical signals in the reproductive behavior of a monogamous non-human primate
Jack Stenger	Ecology	Ohio: University of Cincinnati	The role of interspecific competition in the ecological divergence of Darwin's Ground Finches
Jason Strickland	Systematics/Evolutionary Biology	Florida: University of Central Florida	Convergence within a species? Venom evolution in Mojave Rattlesnakes
Aaron Stuber	Engineering	Alabama: University of Alabama at Birmingham	Mechanobiology of Scleral and Lamina Cribrosa Cells in Fibrous Matrices
Andrea Suria	Cell Biology/Biochemistry	Connecticut: University of Connecticut	Role of the type VI secretion system in bacterial colonization of a female reproductive organ in the Hawaiian bobtail squid, <i>Euprymna scolopes</i>
Mary Szurgot	Cell Biology/Biochemistry	Pennsylvania: Saint Joseph's University	Measuring neuronal cAMP during sleep in <i>Caenorhabditis elegans</i>
Sean Taylor	Cell Biology/Biochemistry	Ohio: Miami University Ohio	Molecular Pathway of HB-EGF/ADAM12S induced brown adipose tissue
Chelsea L. Titus	Anthropology	Missouri: University of Missouri-Columbia	Do Color Pattern Differences Correlate with Genetic Differences Among the Family Lorisidae?

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Katharine Tooke	Chemistry	Vermont: Saint Michael's College	Quantification of Phospholipid Transesterification Products by Proton (1H) Nuclear Magnetic Resonance (NMR)
Ruben U. Tovar	Physiology/Functional Morphology	Oklahoma: University of Tulsa	The discovery of novel eye developmental genes in a stygobitic salamander system using a transcriptome-wide analysis
Yichen Wang	Cell Biology/Biochemistry	Delaware: University of Delaware	Molecular mechanisms of Aniridia Fibrosis Syndrome (AFS)
Phillip Weiser	Physics/Astronomy	Pennsylvania: Lehigh University	Hydrogen centers in Ga ₂ O ₃
Kate Wilkins	Ecology	Colorado: Colorado State University	Effects of bison reintroduction on birds and mammals in a shortgrass prairie ecosystem
Ashley Williams	Cell Biology/Biochemistry	Georgia: Georgia Southern University	The Role of Cell Adhesion Molecule, Integrin Alpha 6 in Tumor Progression
Rebecca Windsor	Ecology	Florida: University of South Florida	Structural color variation in the Florida Scrub-Jay (<i>Aphelocoma coerulescens</i>): the effects of environmental conditions on feather ultraviolet reflectance
Jiaying Wu	Hydrology/Geomorphology	Georgia: University of Georgia	Quantitative reconstruction of Holocene climate change in Costa Rica----Evidence from a lake sediment archive
Wenlin Zhang	Physiology/Functional Morphology	Indiana: Indiana University - Bloomington	Corneal glutamine metabolic enzyme changes in SLC4A11 KO model of Corneal Endothelial Dystrophy