

Grants in Aid of Research Awards -October 1, 2020 Grant Cycle

Anthropology			
Name	Education Status	Institution	Study Title
Amanda Burttt	Doctoral Candidate	Indiana University - Bloomington	A multimethod approach to investigating the diets of dogs from Angel Mounds, Indiana
Katarina Evans	Doctoral Candidate	CUNY Graduate Center/NYCEP	Evolution of the coercive pair bond in hamadryas baboons
Melody Petersen	Masters Student	University of Calgary	Nutritional Ecology of <i>Varecia variegata</i> in Forest Fragments.
Peteneinu Rulu	Doctoral Candidate	University of Massachusetts Amherst	Sociocultural and familial factors associated with symptom experience at midlife.

Behavioral Ecology			
Name	Education Status	Institution	Study Title
Danae Diaz	Doctoral Candidate	Duke University	The relationship between melanin coloration and cognitive performance in swamp sparrows (<i>Melospiza georgiana</i>)
Joshua Lerner	Doctoral Candidate	Texas A&M University-College Station	Putting their best eye forward: how does retinal morphology influence behavior?
Sanjay Prasher	Doctoral Candidate	University of Cincinnati	Effects of foraging success on social network centrality in bobwhite quail
Haylee Quertermous	Masters Student	University of Alabama at Tuscaloosa	Initiation of sex change to male in socially subordinate mangrove rivulus hermaphrodites (<i>Kryptolebias marmoratus</i>)
Daniel Shaykevich	Doctoral Candidate	Stanford University	Toads in Space: Homing behavior in invasive cane toads
Morgan Slevin	Doctoral Candidate	Florida Atlantic University	An experimental test of the microbiota-gut-HPA axis in a wild songbird

Cell Biology/Biochemistry			
Name	Education Status	Institution	Study Title
Prince Akowuah	Doctoral Candidate	University of Houston	Therapeutic Utility of Diet Reversal for Improving Corneal Wound Healing in Obesity
Sabrina Bouchard	Undergraduate	University of Massachusetts Boston	Identification and verification of candidate novel Hippo tumor suppressor pathway regulators in <i>Drosophila</i>
Stephen Coscia	Doctoral Candidate	University of Pennsylvania	Investigating the Role of Myosin 19 in Mitochondrial Fission
Grace Curtis	Doctoral Candidate	Washington State University	Transcriptional analysis of leptin administration during <i>Xenopus laevis</i> limb regeneration
Paulina Eberts	Doctoral Candidate	University of Minnesota, Twin Cities	Deciphering the role of ApoE4 in blood-brain barrier dysfunction in late-onset Alzheimer's disease using human induced pluripotent stem cells
Luz Milbeth Cumba Garcia	Doctoral Candidate	Mayo Graduate School	Extracellular Vesicle Metabolism in Glioma: A Link to Depression?
Tana Gazdik	Doctoral Candidate	Boise State University	Measuring binding affinity of Notch Intracellular domain homo- and heterodimers
Garfield Grimmett	Doctoral Candidate	Tuskegee University	Ezrin's role in nephrogenesis
Kyle Helms	Undergraduate	New Mexico State University	The Tsh transcription factor and the transcriptional co-regulator CtBP interact in <i>Drosophila melanogaster</i> eye development
Joe Jansen	Undergraduate	University of Alabama at Tuscaloosa	Bcl-xL regulation of mitochondrial trafficking and energy retention in neurites of hippocampal neurons
Rita Mormando	Undergraduate	Loyola University Chicago	Polyomavirus JC and its Role in the Urinary Tract
Sarah Owen	Masters Student	Sam Houston State University	Colorado Tick Fever Virus Mediated Apoptosis in Human Endothelial Cells

Cell Biology/Biochemistry (cont.)			
Daniel Principe	Doctoral Candidate	University of Illinois at Chicago	Gemcitabine Resistance in Pancreatic Cancer Requires the Sustained Uptake of Calcium via L-Type Channels and is Reversed by High Dose Amlodipine
Caroline Rinderle	Masters Student	Louisiana Tech University	The Role of MED12 in Adipogenesis
Nikhil Saini	Undergraduate	McMaster University	The use of nanoparticles in creating an antiviral surface for COVID-19 virus particles

Chemistry			
Name	Education Status	Institution	Study Title
Abdullah Afridi	Undergraduate	University of Florida	Spectroscopic Characterization of a Novel Polymer-Protein Hydrogel for Peripheral Nerve Regeneration
Lamyaa Almeahmadi	Doctoral Candidate	University at Albany	Detection of Proteins-small Molecule Adducts at the Single-Molecule Level using Surface Enhanced Raman Spectroscopy (SERS)
William Archer	Doctoral Candidate	Virginia Polytechnic Institute and State University	Measuring Solvent Isotope Effects to Quantify the Connection Between Polymer Structure and Rare-Earth-Element Chelation
Parisa Ebrahimbabaie	Doctoral Candidate	Ball State University	Two Aspects of Light-Activated Nanoparticles: Decomposition of TCE and PCE, and Assessment of Fate in the Environment

Computer Science/Mathematics			
Name	Education Status	Institution	Study Title
Kristy Bell	Undergraduate	University of Virginia	Evaluation of electronically captured patient reported outcome (ePRO) data to measure and predict real-time health-related quality of life changes in SLE patients
Sachin Gavali	Doctoral Candidate	University of Delaware	Predictive novel kinase-substrate interactions using graph representation learning
Nirmalya Thakur	Doctoral Candidate	University of Cincinnati	A Sensible and Intelligent Assistant (SIA) to the Visually Impaired

Conservation Biology			
Name	Education Status	Institution	Study Title
Amanda Chiachi	Masters Student	California State University-Northridge	Determining response and recovery of red abalone, <i>Haliotis rufescens</i> , to marine heatwaves
Emma Dougherty	Undergraduate	Fairleigh Dickinson University	Effect of Artificial Light on the Roosting Habits of the Chimney Swift
Jonathan Hayes	Undergraduate	Bucknell University	Genetic diversity & connectivity of <i>Chasmanthium latifolium</i> (Poaceae) in Pennsylvania & the effect on conservation status
Ruben Palacio	Doctoral Candidate	Duke University	Understanding local dynamics from regional processes as input for conservation actions.
Emily Pavlovic	Masters Student	University of Minnesota Duluth	Determining natal origins and migratory patterns of raptors using stable isotope analysis ($\delta^{2}H$)
Manuel Santiago	Doctoral Candidate	University of Idaho	Assessing genetic diversity and gene flow for Neotropical otter (<i>Lontra longicaudis</i>) in Costa Rica.

Ecology			
Name	Education Status	Institution	Study Title
Kathryn Burcham	Undergraduate	St. Mary's College of Maryland	Effects of <i>Odocoileus virginianus</i> Management on Sapling Growth in a Mid-Atlantic Forest
Robyn Dove	Doctoral Candidate	Portland State University	The root-nodule microbiome: Implications for invasive legume management
Savannah Draud	Doctoral Candidate	University of Mississippi	Do Octocoral Algal-Symbionts Affect Host Form and/or Microbiome?
Sean Farmer	Masters Student	California State University-Northridge	Demystifying the Paradoxical Rarity of the Common Garter Snake (<i>Thamnophis sirtalis</i>) in Southern California
Iwo Gross	Doctoral Candidate	Auburn University	Sexy sons and darling daughters: Overcoming sexual conflict in a polyandrous reptile through temperature-dependent sex determination
Rachel Keown	Masters Student	University of Delaware	Replication Modules predict viroplankton phenotypes in the Oligotrophic Ocean
Blaire Kleiman	Masters Student	Florida International University	How weeds affect insects in mango cultivation of South Florida.
Marissa Langager	Doctoral Candidate	Virginia Polytechnic Institute and State University	Effects of early life nutritional stress on songbird disease response
Madeleine Meadows-McDonnell	Doctoral Candidate	University of Connecticut	How do salt marsh carbon legacies of tidal restriction affect soil organic matter?
Erin-Darby McClain	Undergraduate	College of William and Mary	The role of larval cloning in recruitment
Haley Moniz	Doctoral Candidate	University of Nevada, Reno	Unveiling selective pressures of dietary specialization and adaptive toxin resistance in garter snakes (<i>Thamnophis</i>)
Ritika Nath	Masters Student	City University of New York-Queens College	A survey of mammalian diversity along the Bronx River
Kara Noonan	Masters Student	Clemson University	The Influence of Butterflyfish and Coral Genome on the Progression and Transmission Success of Coral Disease
Sage Rohrer	Doctoral Candidate	University of Missouri-St. Louis	MHC Diversity Maintained to Modulate the Gut Microbiome in Wild Birds
Savannah Ryburn	Masters Student	University of North Carolina at Chapel Hill	Using DNA from fecal swabs as a new method to quantify the diet of sharks
Jawad Sakarchi	Masters Student	University of British Columbia	Extinction or evolution? How resource use evolves under invasion
Regina Spranger	Doctoral Candidate	University of California-Santa Cruz	Thermal Acclimation Potential of Midwestern Salamanders: An Extinction Risk Assessment under Climate Change
April Stabbins	Doctoral Candidate	Temple University	Characterizing microbially mediated carbon usage in a newly discovered deep-sea coral inhabiting methane seeps
Amber Stanley	Doctoral Candidate	University of Pittsburgh	"Floral Morphology and Pollination Success of Herbarium Specimens"
Trang Tran	Masters Student	Missouri State University	Metal leaching in decomposing sycamore leaf in Big River, Missouri
Hannah Whaley	Masters Student	Missouri State University	Macrophyte abundance in spring-fed ponds and how it changes with varying spatial factors

Engineering			
Name	Education Status	Institution	Study Title
Kassia Love	Undergraduate	Harvard University	Building an eyeball robot mechanism that can simulate eye movements with an eccentric preferred retinal locus in people with macular degeneration
David Schlachter	Masters Student	École Polytechnique de Montréal	Development of ecological, high-performance polymeric binders for additive manufacturing of metals through binderjetting three-dimensional printing
Cheng Shi	Doctoral Candidate	Oregon State University	Identifying the dominant mechanisms of antimicrobial resistance propagation in soil through wastewater irrigation

Engineering (cont.)			
Name	Education Status	Institution	Study Title
Soumya Varma	Doctoral Candidate	Iowa State University	Unique Microstructure and Nanomechanical Properties of Enamel in the Grinding Dentition of the Hadrosaurid Dinosaur: A bio-inspired vision for High-Performance, Multi-Functional Materials

Geoscience			
Name	Education Status	Institution	Study Title
Molly Blakowski	Doctoral Candidate	Utah State University	Geochemical fingerprinting of dust sources around the shrinking Great Salt Lake to estimate human health risks
Laura Fackrell	Doctoral Candidate	University of Georgia	Martian regolith as an in-situ resource: The challenge of growing plants on Mars
James Muller	Doctoral Candidate	Scripps Institution of Oceanography	Hot or not? Testing the hotspot model for volcanism along the Fierberling-Guadalupe Seamount Trail, north Pacific Ocean
Calen Rubin	Masters Student	University of New Hampshire	Cosmogenic ¹⁰ Be dating of terminal moraines in the Beartooth Mountains to evaluate glacier responses in greater Yellowstone during the last two glaciations
Skye-Anne Tschoepe	Undergraduate	Appalachian State University	An Assessment of the Impact of Stormwater Management Practices on Stream Salt Ion Concentration in the South Fork New River Watershed

Physics/Astronomy			
Name	Education Status	Institution	Study Title
Thilini Ekanayaka	Doctoral Candidate	University of Nebraska at Lincoln	Lower resistance higher temperature molecular multiferroic systems
Kellen Lawson	Doctoral Candidate	University of Oklahoma	GPU Acceleration for High Contrast Imaging of Exoplanets and Disks
Luke McClintock	Doctoral Candidate	University of California-Davis	Exciton Transport in 2D and 3D Halide Perovskite Materials
Georgia Mraz	Undergraduate	Union College	Remote Observing of NASA Exoplanet Candidates
Andrew Nine	Doctoral Candidate	University of Wisconsin-Madison	Searching for the Abundance Signatures of Mass Transfer
Christian Pluchar	Doctoral Candidate	University of Arizona	Multi-Mode Feedback Cooling with an Open Source FPGA

Physiology/Functional Morphology			
Name	Education Status	Institution	Study Title
Austin Lawrence	Doctoral Candidate	University of Missouri-Columbia	Effect of hip joint orientation and pelvic morphology on human locomotor biomechanics
Kerry Martin	Doctoral Candidate	University of North Carolina at Greensboro	Effects of exercise on levels of KEAP1 and NRF2 pathways and downstream antioxidant production.
Shelly McCain	Doctoral Candidate	University of Alabama at Tuscaloosa	Age-dependent responses to an extreme salinity gradient in a euryhaline fish, the mangrove rivulus (<i>Kryptolebias marmoratus</i>)
Tanner Mierow	Undergraduate	University of Minnesota, Twin Cities	Visual Specializations for Prey Size Selection in Belostomatid Insects

Physiology/Functional Morphology (cont.)			
Name	Education Status	Institution	Study Title
Lauren Moniz	Masters Student	Georgia Southern University	Investigating ontogenetic dietary shifts in butterfly rays (<i>Gymnura lessae</i>) using stable isotope analysis and stomach content analysis
Augstine Nti	Doctoral Candidate	University of Houston	Modeling the optical and visual effects of myopia control contact lenses
Heinz Otchere	Doctoral Candidate	University of Waterloo	Ocular Effects of Scleral Lens Wear on Dry Eye Patients
Katherine Riordan	Masters Student	California Polytechnic State University San Luis Obispo	Are Sea Otter Pups More Vulnerable to the Effects of Oiling?
Ane Rodriguez	Doctoral Candidate	Achucarro Basque Center for Neuroscience	Role of dendritic spines in epileptogenesis
Tenley Spataro	Undergraduate	University of Massachusetts Boston	Development of a nanotechnology-based approach for targeted drug delivery to the eye

Psychology			
Name	Education Status	Institution	Study Title
Cory Cascalheira	Doctoral Candidate	New Mexico State University	Beliefs and Coping with COVID-19
Lauren DiNicola	Doctoral Candidate	Harvard University	Examining Component Processes of Parallel Network Functions
Cathryn Haas	Undergraduate	Kansas State University	Identifying the brain structures active during a time-based intervention
Matt Jamnik	Doctoral Candidate	Southern Illinois University-Carbondale	A Behavioral Genetic Investigation of Preschoolers' Activity Levels and Health Outcomes in Middle Childhood
Xin Yao Lin	Doctoral Candidate	Brandeis University	Social Exergame Intervention to Promote Physical Activity, Social Support, and Well-Being in Sedentary Midlife and Older Adults
Brandon McCormick	Doctoral Candidate	University of Alabama at Tuscaloosa	Examining the Effects of Mild Traumatic Brain Injury on Youth Mental Health
Daniel Moriarity	Doctoral Candidate	Temple University	A Test of the Immunocognitive Model Using a Reward-Salient Stress Task
Karin Pedemonte	Doctoral Candidate	George Mason University	The effects of blood plasma transfusion on older htau mice modeling Alzheimer's disease
Nicholas Surdel	Masters Student	College of William and Mary	Cognition and Psychological Processing

Systematics/Evolutionary Biology			
Name	Education Status	Institution	Study Title
Kiran Adhikari	Doctoral Candidate	University of Houston	Understanding the effect of host genotype-by-temperature interactions on the microbiome
Antonia Androski	Doctoral Candidate	University of New Mexico	Testing Pleistocene Drivers of Diversification: Phylogenomics of Shrews Reveals Evolutionary Dynamics of North American Fauna
Sophie Breitbart	Doctoral Candidate	University of Toronto at Mississauga	Testing for Adaptation to Urbanization in a Native Plant of Conservation Importance
Reena Debray	Doctoral Candidate	University of California-Berkeley	Predicting the Evolutionary Outcomes of Bacteriophage Resistance
Chathamadavi Ediriweera	Doctoral Candidate	University of Akron	Sex chromosome evolution in <i>Eulimnadia texana</i>
Jacob Ewald	Masters Student	California State University-Chico	The Mystery of Species Boundaries in Two Northern California Monkeyflowers
Diler Haji	Doctoral Candidate	University of California-Berkeley	Testing ecological speciation in the fire-adapted toxic star lilies of California (<i>Toxicoscordion spp.</i>)