

Grants-in-Aid of Research Awards  
October 15, 2010 Grant Cycle

Alphabetical by Subject

|                        |              |   |  |
|------------------------|--------------|---|--|
| Mackenzie L. Bergstrom | Anthropology | University of Calgary                       | Dominance, nutrition and energetic condition in female white-faced capuchin monkeys  |
| Habiba Chirchir        | Anthropology | George Washington University                | Pilot study on trabecular bone architecture of humans and other mammals adapted for speed versus endurance   |
| Clarissa R. Dicke      | Anthropology | University of Alaska Fairbanks              | Population continuity or replacement in ancient Lachish? A dental affinity analysis in the Levant.   |
| Heather M. Garvin      | Anthropology | Johns Hopkins University School of Medicine | Environmental Effects on Human Cranial and Postcranial Sexual Dimorphism   |
| Briana C. Horwath      | Anthropology | University of Alaska Fairbanks              | Dental Microwear and Diet: Analysis of the Neolithic-Early Bronze Age Burial site of Bolores, Torres Vedras, Portugal and the Late to Middle Neolithic Burial site of Feteira II, Portugal |
| Laura E. Johnson       | Anthropology | Duke University                             | The biomechanics of vertical clinging in primates  |
| John K. Millhauser     | Anthropology | Northwestern University                     | Salt of the Earth: Craft and community at San Bartolome Salinas, a Postclassic and early Colonial salt-making village in Mexico  |
| Nicole Musselwhite     | Anthropology | University of Southern Mississippi          | Burial Chronological Sequencing at Tipu, Belize Based on Fluoride Testing  |
| Alim F. Ramji          | Anthropology | University of Oklahoma                      | Disease Perception: How Cultural Understandings Through Art May Affect Treatment, A Pilot Project In Three Continents.   |
| Nicoletta Righini      | Anthropology | University of Illinois at Urbana-Champaign  | Foraging decisions, patch choice, and nutrient regulation in Mexican black howler monkeys  |
| Mark E. Robinson       | Anthropology | Louisiana State University-Baton Rouge      | Wood Selection Strategies of the Ancient Maya, Paynes Creek National Park, Southern Belize   |

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| Travis S. Steffens    | Anthropology       | University of Toronto                               | Habitat Fragmentation and Habitat Loss Effects on Lemur Species Occurrence in Multiple Landscapes                             |
| Amanda VanSteelandt   | Anthropology       | Arizona State University                            | The construction of human disease ecologies through cultural transmission: A Nivacle example                                  |
| Becky E. Atwood       | Behavioral Ecology | Boston University                                   | Neuronal Proliferation and Cognitive Performance of Amphiprion percula Exposed to Odor Enriched vs. Nonenriched Environments. |
| Emerson K. Bowers     | Behavioral Ecology | Illinois State University                           | Allocating offspring sex: robust daughters and sensitive sons?  |
| Raymond M. Danner     | Behavioral Ecology | Virginia Polytechnic Institute and State University | Cross-seasonal sexual selection in a migratory bird   |
| Melissa L. Grunst     | Behavioral Ecology | University of California-Riverside                  | Adaptive plasticity in reproductive behavior and mediation by the adrenocortical stress response                              |
| Edward M. Hanlon      | Behavioral Ecology | University of Mississippi                           | Maternal Investment in Clutch Size as a Function of Male Mate Quality in Ocellated Turkeys (Meleagris ocellata)               |
| Ariadna Herrera       | Behavioral Ecology | Universidad de Guanajuato                           | THE DILEMMA BETWEEN MATING AND LIFE SPAN: THE JUVENILE HORMONE EFFECT UPON PATHOGENES SUSCEPTIBILITY AND OXIDATIVE DAMAGE     |
| Candice M. Klingerman | Behavioral Ecology | Lehigh University                                   | Energy availability affects sexual motivation and sexual reward through the actions of ghrelin and leptin.                    |
| Irene A. Liu          | Behavioral Ecology | Duke University                                     | Does genetic diversity predict extra-pair mating in populations of a songbird?  |
| Laura Louon           | Behavioral Ecology | Ithaca College                                      | Movement behavior in the eastern chipmunk (Tamias striatus)   |

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| Patrick J. Lyons     | Behavioral Ecology        | State University of New York at Stony Brook         | Why settle for less? Constraints on adoption of an optimal predator avoidance strategy  |
| James J. Muraco      | Behavioral Ecology        | Texas State University-San Marcos                   | Maintenance of a unisexual-bisexual mating complex: importance of behavioral syndromes and hormones   |
| Michael S. Painter   | Behavioral Ecology        | Virginia Polytechnic Institute and State University | Characterizing the light-dependent magnetic compass in <i>Drosophila melanogaster</i>   |
| Jonathan A. Quinonez | Behavioral Ecology        | University of Utah                                  | Vertical Acceleration Capacity of <i>Mus Musculus</i> in Relation to Social Dominance Ability   |
| Sandra M. Rehan      | Behavioral Ecology        | Brock University                                    | Social behavior of Neotropical small carpenter bees   |
| Ashley Robart        | Behavioral Ecology        | University of California-Santa Cruz                 | Differential allocation of reproductive effort due to mate selection: a test of parental care and mate quality in the convict cichlid, <i>Amatitlania nigrofasciata</i> . |
| Molly C. Womack      | Behavioral Ecology        | Colorado State University                           | Not all Signals are Received Equally: Finding the Mechanism Behind Signal Evolution in the Painted Forest Toadlet   |
| Ameair Abu Irqeba    | Cell Biology/Biochemistry | Saint Louis University                              | The Role of Rabac1 in Photoreceptor Development   |
| Ahmet D. Arslan      | Cell Biology/Biochemistry | University of Illinois at Chicago                   | Identification of small molecule inhibitors of splicing factors: A novel therapeutic tool for ovarian cancer  |
| Hope C. Ball         | Cell Biology/Biochemistry | University of Akron                                 | Leptin and OBR-GRP expression patterns in two Arctic adapted cetaceans: the bowhead ( <i>Balaena mysticetus</i> ) and beluga whale ( <i>Delphinapterus leucas</i> ).      |

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| Austen A. Barnett | Cell Biology/Biochemistry | Southern Illinois University-Carbondale     | Exploring the Loss of the Hox Gene abdominal-A in the Mite Archegozetes longisetosus in the Context of Limb Development |
| Robert L. Brochin | Cell Biology/Biochemistry | Georgetown University                       | The Effect of Concentrated Muscle Conditioned Media on Human Breast Carcinoma Cells with Mutated p53                    |
| Sean Burn         | Cell Biology/Biochemistry | American University                         | Molecular Basis of Apoptosis in the Zebrafish (Danio rerio) Model of Diabetic Retinopathy                               |
| Chester Chia      | Cell Biology/Biochemistry | Rutgers, The State University of New Jersey | ARC (arg3.1) Protein Expression in Dorsal and Ventral Hippocampus Depends Upon Activation of NMDA Receptors             |
| Young M. Cho      | Cell Biology/Biochemistry | Texas A&M University-College Station        | Effect of n-3 polyunsaturated fatty acid and/or butyrate on DNA methylation of apoptosis related genes                  |
| Robyn DeBenedet   | Cell Biology/Biochemistry | University of Hawaii at Hilo                | Relationship between Changes in Ocean pH and the Calcareous Brown Aglae, Padina.  |
| Atbin Doroodchi   | Cell Biology/Biochemistry | University of Alabama at Birmingham         | The effects of C.elegans BTBD9 homolog, C05C8.6, deletion in worm's behavior and synaptic transmission                  |
| Brij K. Gupta     | Cell Biology/Biochemistry | University of South Dakota                  | Antibody guided therapy of colon cancer using nano-siRNA technology   |
| Chad M. Hunter    | Cell Biology/Biochemistry | East Carolina University                    | Characterization of DNA Polymerase Delta using a combined in vivo and in vitro strategy                                 |
| Nora Ibrahim      | Cell Biology/Biochemistry | University of Illinois at Urbana-Champaign  | The Catalysis of DNA Hydrolysis by Sequence-Tolerant Deoxyribozymes   |
| Wenzhe Lu         | Cell Biology/Biochemistry | University of Texas Medical Branch          | Designing novel proteins with enhanced mechanical strengths   |

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| Joshua A. Lukas     | Cell Biology/Biochemistry | Bethel College          | Tamoxifen- and Estradiol-induced alterations in the mRNA and miRNA expression in human hepatocytes                             |
| Emily C. Moorefield | Cell Biology/Biochemistry | Wake Forest University  | The effect of hepatocyte nuclear factor 4 alpha haploinsufficiency on the development and function of pancreatic beta-cells    |
| Jamie L. Nickerson  | Cell Biology/Biochemistry | Bates College           | Genetics of susceptibility to bone loss related to periodontal disease   |
| Laurin Pacheco      | Cell Biology/Biochemistry | University of Miami     | Vascular Differentiation Potential of Progenitor Cells   |
| Tony Pierson        | Cell Biology/Biochemistry | George Mason University | Effects of Exposure of Cigarette Smoke on the Expression Levels of Antimicrobial Peptides in Human Lung Epithelial Cells       |
| Jonathon C. Reeck   | Cell Biology/Biochemistry | Boise State University  | Collagen Type XI(a1) Regulates Osteoblast Differentiation and Mineralization in the Developing Zebrafish Craniofacial Skeleton |
| Adam C. Reichard    | Cell Biology/Biochemistry | Wright State University | M1 and M2 macrophage response after HSV-1 infection: an in vivo model for HSV-1 corneal infections                             |
| Anne M. Runkel      | Cell Biology/Biochemistry | Middlebury College      | Transcriptional Analysis of Akap9: a study of the genetic basis of infertility   |
| Craig A. Schenck    | Cell Biology/Biochemistry | Ohio University         | Proteomics approach to studying signal transduction in a plants' response to gravity   |
| Jasmine L. Shinko   | Cell Biology/Biochemistry | Gannon University       | Characterization of Antibiotic Resistant Aeromonads from Lake Erie and Evaluation of their Pathogenicity                       |
| Stephanie A. Smith  | Cell Biology/Biochemistry | University of Idaho     | Microbial Activities Effecting Selenium Mobility in Seleniferous Environments  |

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| Amy M. Thomson      | Cell Biology/Biochemistry    | Widener University            | Effect of Atrazine Exposure on Gene Regulation in Adult <i>Rana pipiens</i>   |
| Tomislav Ticak      | Cell Biology/Biochemistry    | Miami University Ohio         | Analysis of Punitive Trimethylamine Operon in <i>Desulfitobacterium hafniense</i> (DCB-2 / Y51)   |
| Tenira J. Townsend  | Cell Biology/Biochemistry    | Oakland University            | Role of PARP-1 in UVB-treated lens epithelial cells   |
| Christopher Walker  | Cell Biology/Biochemistry    | Ohio State University         | In Vivo Characterization of Two Non-Toxic and Non-Immunosuppressive FTY720-derived Compounds for Use as Anti-Leukemic Agents  |
| Lingyu Wang         | Cell Biology/Biochemistry    | University of Miami           | The role of Neurabin, a neural tissue-specific protein, in egg polarity establishment and early embryo development  |
| Keerthi Chandra     | Chemistry                    | Eastern Illinois University   | Perovskite Thin Films : Synthesis, characterization and Surface Modification for Electrochemical Oxygen Reduction reaction catalysis.   |
| Beatrice N. Irungu  | Chemistry                    | University of Nairobi         | Bio-prospecting for anti-malarial compounds from some Kenyan medicinal plants   |
| Harrison S. Kibombo | Chemistry                    | University of South Dakota    | Characterization of hydrothermally synthesized platinum supported TiO <sub>2</sub> -SiO <sub>2</sub> catalysts for the photocatalytic degradation of toxic phenolic compounds |
| Julie M. Wilkerson  | Chemistry                    | University of Texas at Austin | Electroluminescent Materials Based on Lanthanide-Containing Conducting Metallopolymers  |
| Ryo L. Akasaka      | Computer Science/Mathematics | Stanford University           | Providing User Controls for Self-Regulating Behavior Changes Based on Intelligent UI Design   |

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| Aaron Costley           | Computer Science/Mathematics | Tarleton State University  | ROBOT NAVIGATION THROUGH PARALLEL PROCESSING IN A COMPUTER CLUSTER   |
| Samantha L. Finkelstein | Computer Science/Mathematics | University of North Carolina at Charlotte                                  | Astrojumper: Motivating Children with Autism to Exercise using a Virtual Reality Exercise Game                                       |
| Meredith A. Atwood      | Conservation Biology         | State University of New York College of Environmental Science and Forestry | Bottom-Up Influences on Vernal Pool Food Webs: Implications for Amphibians and Restoration Efforts                                   |
| Kirsten E. Borger       | Conservation Biology         | East Tennessee State University  | The Effects Of Environmental Change On <i>Plethodon welleri</i> In The Southern Appalachian Mountain Range.                          |
| Gena R. Esposito        | Conservation Biology         | University of Texas at El Paso   | Genetic diversity of two invertebrate species with contrasting dispersal abilities in isolated water bodies of the Chihuahuan Desert |
| Kathryn J. Fiorella     | Conservation Biology         | University of California-Berkeley  | Linking Natural Resources and Disease: Land Use Change and HIV/AIDS  |
| Erika J. Fox            | Conservation Biology         | California State University-Long Beach                                     | Quantifying Trophic Support for California Halibut in a Restored Coastal Wetland as a Metric for Restoration Success                 |
| Adriana V. Gata         | Conservation Biology         | Cornell University   | <i>Batrachochytrium dendrobatidis</i> Emergence in Central America: Testing the Spreading Pathogen Hypothesis                        |
| Aaron Haynes            | Conservation Biology         | Sam Houston State University   | Potential Role of Piscivorous Snakes on Regulation Invasive Aquatic Prey Populations   |
| Desiree' J. Moffitt     | Conservation Biology         | Appalachian State University   | The Impact of Amphibian Chytrid Fungus on <i>Plethodontid</i> Populations in the Southern Appalachians                               |

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| Karen Uy               | Conservation Biology | University of Hawaii at Hilo                       | Comparison of temperature tolerance between two sympatric populations of Hawaiian picture-winged <i>Drosophila</i> : <i>D. silvestris</i> and <i>D. sproati</i> . |
| Benjamin J. Wainwright | Conservation Biology | University of Hawaii at Manoa                      | Indonesian Gene Flow and Implications for Potential Marine Conservation Strategies.   |
| Linet C. Watson        | Conservation Biology | SUNY College of Environmental Science and Forestry | Trophic Ecology and Conservation of the Giant Arapaima in South-western Guyana  |
| Pamela Wong            | Conservation Biology | University of Toronto                              | Reliability and accuracy of Inuit estimates of polar bear sex, age, size and age of track from in situ track observations   |
| Carla L. Atkinson      | Ecology              | University of Oklahoma                             | Trophic and nutrient cycling roles provided by a multi-species assemblage of native freshwater mussels  |
| Asya Ayrapetov         | Ecology              | Purdue University-West Lafayette                   | The effects of climatic variation on the reproductive success of a spring woodland herb <i>Claytonia virginica</i> (Portulacaceae)                                |
| Sarah Blackstock       | Ecology              | DePaul University                                  | Assortative mating by size in intertidal crustaceans: effects of a spatially heterogeneous environment  |
| Catherine H. Bravo     | Ecology              | Florida International University                   | Examining above and below ground carbon allocation along an elevation gradient in the Southeastern Peruvian Andes   |
| Marybeth K. Brey       | Ecology              | North Carolina State University                    | Can introduced species alter benthic-pelagic coupling in aquatic systems?   |
| Kim M. Briones         | Ecology              | University of North Carolina at Greensboro         | Effects of intercropping switchgrass and loblolly pine on the diet and trophic position of <i>Peromyscus leucopus</i> .   |



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| Edward D. Burress     | Ecology | Appalachian State University               | Resource partitioning, nutrient cycling and trophic structure of a species-rich aquatic ecosystem  |
| Sandra Camilleri      | Ecology | University of North Carolina at Wilmington | Investigating the stomach oil provisioning strategy in Procellariiform seabirds using Leach's storm-petrels ( <i>Oceanodroma leucorhoa</i> ) as a model species. |
| Gretel L. Clarke      | Ecology | University of Vermont                      | Assessing the individual and interactive effects of ecological players on sex morphs of the gynodioecious <i>Polemonium foliosissimum</i>                        |
| Kavitha Dasu          | Ecology | Purdue University-West Lafayette           | Evaluating the Biotransformation Potential of 8:2 and 6:2 Fluorotelomer-based Urethanes in Soil  |
| Nicole M. Davros      | Ecology | University of Illinois at Urbana-Champaign | An integrative approach to testing density effects in a migratory songbird, the Prothonotary Warbler ( <i>Protonotaria citrea</i> )                              |
| Christopher J. Dibble | Ecology | Rice University                            | The Role of Genetic Diversity in Mediating Resistance to a Novel Pathogen  |
| Paul A. Durst         | Ecology | Duke University                            | The Biogeography and Community Structure of Parasites of Channel Island Deer Mice ( <i>Peromyscus maniculatus</i> ) on the California Channel Islands            |
| Robert D. Ellis       | Ecology | Florida State University                   | Red grouper: prairie dogs of the seagrass? Assessing the ecological impact of benthic habitat modification by red grouper  |
| Lisa Fazzino          | Ecology | University of Puget Sound                  | Bacterial Inhabitants of the Nitrogen Fixing Invasive Scotch Broom ( <i>Cytisus scoparius</i> ) in South Puget Sound   |

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| Stephanie E. Figary   | Ecology | SUNY College of Environmental Science and Forestry                         | Exploiting a natural experiment: Investigating the impact of an invasive zooplankton, <i>Cercopagis pengoi</i> , on the food webs of the New York Finger Lakes |
| Shanna D. Hanes       | Ecology | Auburn University  | Hyperthermic stress-induced autophagy in the tropical anemone, <i>Aiptasia pallida</i> .   |
| Jessica M. Howells    | Ecology | Appalachian State University   | Induction in <i>Solidago altissima</i> as a possible mechanism for genotypic effects on aphid herbivores   |
| Jennifer A. Johnson   | Ecology | Florida Institute of Technology  | The Reproductive Biology of <i>Myrophis punctatus</i> In The Indian River Lagoon Near The Sebastian Inlet  |
| Shafkatul I. Khan     | Ecology | University of Georgia  | Tropical tree seedlings's response to change in climate  |
| Eun Sun Kim           | Ecology | University of Illinois at Chicago  | Investigating the role of genetic diversity and pollination biology as potential causes for reproductive failure in <i>Asclepias lanuginosa</i>                |
| Megan S. Kirchgessner | Ecology | State University of New York College of Environmental Science and Forestry | Bovine Viral Diarrhea Virus: A Risk Assessment of Interspecies Disease Transmission  |
| Travis Kocurek        | Ecology | Sam Houston State University   | Critical Current Speed in Two Livebearing Fishes ( <i>Gambusia nobilis</i> and <i>G. geiseri</i> ) at Balmorea State Park, Texas.                              |
| Jennifer A. Koop      | Ecology | University of Utah   | Darwin's finches fight back: costs of immunity   |
| Chia-Hua Lin          | Ecology | Ohio State University  | Does clonal structure affect pollinator-mediated mating pattern in <i>Dicentra canadensis</i> (Fumariaceae)?   |
| Ebony G. Murrell      | Ecology | Illinois State University  | The roles of predation and predation resistance tradeoffs: mechanisms of ecological succession in an aquatic invertebrate community.                           |

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| Itai Opatovsky     | Ecology | Ben-Gurion University of the Negev          | Pest predation by agrobiont and immigrant spiders in wheat fields   |
| Dustin Partridge   | Ecology | Fordham University                          | Green Roofs as Migrating Bird and Breeding Bird Habitat   |
| Colin C. Phifer    | Ecology | University of Hawaii at Hilo                | Reproductive Success of Two Dioecious Plants in a Fragmented Landscape  |
| Allyson L. Plantz  | Ecology | Southwestern University                     | Munching on 'egg' shells: Mechanisms behind egg predation by a model predator, the redeared slider ( <i>Trachemys scripta elegans</i> ) |
| RaeAnn Powers      | Ecology | University of Nebraska at Lincoln           | Understanding Diversity in Managed Grassland Ecosystems   |
| Laura D. Radville  | Ecology | University of Rhode Island                  | Invasive herbivore feeding induces a hypersensitive response in hemlock trees   |
| Pamela L. Reynolds | Ecology | University of North Carolina at Chapel Hill | Interactive effects of resources and consumers on marine vegetation: participation in an international experimental network             |
| Kartick P. Shirur  | Ecology | University of Mississippi                   | Do Symbiodinium algae in octocorals use the host as an umbrella?  |
| Ann M. Showalter   | Ecology | Miami University Ohio                       | The interactive role of lake productivity and sediment-feeding fish on growth and overwinter survivorship of bluegill sunfish           |
| Nyssa J. Silbiger  | Ecology | University of Hawaii at Manoa               | Why the little guys matter: Organisms that shape coral reefs and their response to ocean acidification.                                 |
| Ben Smit           | Ecology | University of Pretoria                      | The role of water availability in thermoregulation at high temperatures   |

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| Michael S. Studivan    | Ecology | St. Mary's College of Maryland         | Effects of Oil and the Oil Dispersant Corexit® 9527 on Bleaching of the Alcyonacean Soft Coral <i>Xenia elongata</i>                   |
| Corianne Tatariw       | Ecology | University of Alabama at Tuscaloosa    | Exploring Community Dynamics of Nitrate Removers in the Cahaba River, Alabama  |
| Courtney Thomason      | Ecology | Texas Tech University                  | Hosts as a Partitioned Resource: a Study of Parasite Co-infection  |
| Amy C. Ulappa          | Ecology | Boise State University                 | Nutritional and chemical factors shaping diet selection by a sagebrush dietary specialist: the pygmy rabbit                            |
| Benjamin G. Van Allen  | Ecology | Rice University                        | Previous habitat quality of colonizers drives community dynamics in new habitats   |
| Kimberly L. VanderWaal | Ecology | University of California-Davis         | Identifying routes of pathogen transmission among wild and domestic ungulates in central Kenya   |
| Rachel E. Walsh        | Ecology | University of California-Berkeley      | Impact of Biotic Interactions & Environmental Variables on Range Shifts in Chipmunks in Yosemite National Park                         |
| Whitney Webb           | Ecology | Davidson College                       | The Effect of Sward Height and Grazing Frequency on the Diversity and Abundance of Selected Insect Taxa in Sustainable Grazing Systems |
| Rachel S. Welt         | Ecology | Fordham University                     | Can rapid evolution in response to a climatic event alter levels of gene flow in an annual plant?                                      |
| Rachel D. Wigginton    | Ecology | California State University-Long Beach | Impacts of <i>Lepidium latifolium</i> on habitat quality for song sparrows in a northern California brackish marsh                     |

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| Olufunmilayo O. Adebayo | Engineering                | Worcester Polytechnic Institute             | Analysis of material properties and failure behavior of cell-derived tissue rings   |
| Peter J. Attayek        | Engineering                | University of North Carolina at Chapel Hill | Rutherford Backscattering Analysis of Polymer Membranes Used for Desalination and Reuse   |
| Anna K. Blakney         | Engineering                | University of Colorado at Boulder           | Characterization of Anti-Inflammatory Effects of Mesenchymal Stem Cells on Activated Macrophages  |
| Jianfeng Chen           | Engineering                | State University of New York at Stony Brook | Development of High-Brightness, Low-Divergence, Narrow-Line and Spectra-Stabilized 1.95 $\mu$ m Laser Diode Source with Volume Bragg-Grating Feedback |
| Joseph R. Geissler      | Engineering                | New Jersey Institute of Technology          | Tissue-level Mechanical Properties of Alendronate Treated Canine Cortical Bone  |
| Sonia Merritt           | Engineering                | Case Western Reserve University             | Pressure-Mediated Gene Therapy for Ocular Diseases  |
| Arpan Satsangi          | Engineering                | University of Texas at San Antonio          | Development of resorbable, multi-layered polymer membranes for multi-modal drug release at bone defect sites.   |
| Arpita Sinha            | Engineering                | Portland State University                   | Evolving Neuromorphic non-linear time dependent networks  |
| Yu Zhang                | Engineering                | State University of New York at Stony Brook | Investigation of high quality B12As <sub>2</sub> heteroepitaxial films on c-plane off-axis 4H-SiC substrates  |
| Denise Burchsted        | Hydrology/Geomorphology    | University of Connecticut                   | Beaver Meadow Hydrology   |
| Ryan M. Pollyea         | Hydrology/Geomorphology    | University of Idaho                         | Experimental evaluation of least-squares methods for quantifying surface roughness from LIDAR-derived datasets  |
| Ryan M. Carney          | Paleontology/Sedimentation | Brown University                            | High-resolution 3D digital scanning of the Thermopolis Archaeopteryx fossil   |

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| Danielle S. Grogan  | Paleontology/Sedimentation | Brown University                            | Rapid climate change: the role of large lakes as Eocene greenhouse gas sources and sinks  |
| Alex H. Kasprak     | Paleontology/Sedimentation | Brown University                            | A Paleobarometric Record of End-Triassic Atmospheric pCO <sub>2</sub> from the Algarve Basin (Portugal)   |
| Andrea M. Rocchio   | Paleontology/Sedimentation | Hobart and William Smith Colleges           | Assessment of historic (~1900-2010 C.E.) nutrient sources and paleoproductivity in Honeoye Lake, NY   |
| David K. Weinstein  | Paleontology/Sedimentation | University of Miami                         | Deep bioerosion: Variations in biological alteration in different mesophotic reef zones and the impacts on coral framework sustainability                                   |
| Kenneth L. Brown    | Petrology/Geochemistry     | Miami University Ohio                       | GEOCHRONOLOGY AND GEOCHEMISTRY OF A LATE CRETACEOUS GRANITOID SUITE, SANTA ROSA RANGE, NEVADA: LINKING ARC MAGMATISM IN NORTHWESTERN NEVADA TO THE SIERRA NEVADA BATHOLITH. |
| Ryan E. Frazer      | Petrology/Geochemistry     | University of North Carolina at Chapel Hill | High-precision geochronology of the Mount Givens pluton, central Sierra Nevada, California  |
| Joshua M. Rosera    | Petrology/Geochemistry     | University of North Carolina at Chapel Hill | High resolution geo- and thermochronology of the Questa Porphyry Mo deposit and associated intrusions, Northern New Mexico  |
| Samaneh Ahmadinejad | Physics/Astronomy          | Illinois Institute of Technology            | The relationship between the earth's natural magnetic waves and it's effect on gravity, the potential of generating electricity from the earth's natural magnetic waves     |
| Roy Anunciado       | Physics/Astronomy          | Wesleyan University, Connecticut            | A Study Towards Na <sup>2+</sup> æShallow WellÆ Potential   |

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| Michael J. Berry        | Physics/Astronomy | Rutgers, The State University of New Jersey | Evaluating the Gas Surrounding Distant Galaxies   |
| Michael Butler          | Physics/Astronomy | University of Florida                       | Studying the initial conditions of massive star formation with the Herschel Space Telescope                           |
| Christopher J. Crockett | Physics/Astronomy | Lowell Observatory                          | Searching for the youngest planets  |
| Daniel I. Johnson       | Physics/Astronomy | University of North Alabama                 | A Search For Variable Stars in Two Old Open Clusters  |
| John Kerr               | Physics/Astronomy | Ohio University                             | Variability Study of Three Newly Discovered VHE Gamma-ray Blazars   |
| Min-Young Lee           | Physics/Astronomy | University of Wisconsin-Madison             | OH Observations of the Perseus Molecular Cloud: Unveiling the Processes of Molecule Formation                         |
| Vikram D. Londhe        | Physics/Astronomy | University of Pune                          | To Find and study New Habitable Planet(exoplanet)using Ocular Telescope and Doppler Spectroscopy.                     |
| Somsubhra Maity         | Physics/Astronomy | North Carolina State University             | Photothermal response of nanoparticles inside polymer nanocomposites and nanothermometry using fluorescence technique |
| James Monahan           | Physics/Astronomy | Drexel University                           | Cherenkov Signal Simulator for Water Detectors  |
| Justin Moore            | Physics/Astronomy | University of North Carolina at Chapel Hill | Consistent Weather Monitoring for PROMPT at CTIO  |
| Daniel T. Nuzzo-Mueller | Physics/Astronomy | Worcester Polytechnic Institute             | Optimization of substrate surface topography for organic thin film solar cells  |
| Brett Ragozzine         | Physics/Astronomy | Ohio University                             | Modeling the Dark Matter of Galaxy Clusters Using the Tensor-Vector-Scalar Theory of Alternate Gravity                |
| Vivian U                | Physics/Astronomy | University of Hawaii at Manoa               | Kinematics and Energetics in Luminous Infrared Galaxies   |
| Jean P. Walker Soler    | Physics/Astronomy | Rutgers, The State University of New Jersey | How did the Milky Way Form? A Semi-Analytical Study of Galaxy Evolution   |

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| Isak Wold           | Physics/Astronomy                | University of Wisconsin-Madison                            | A Search for Ultraluminous Infrared Galaxies at Early Cosmic Times  |
| Gerardo L. Balbuena | Physiology/Functional Morphology | Universidad Nacional Autonoma de Mexico                    | Mecanismos implicados en la regulaci3n de la funci3n testicular del Urodelo Ambystoma rivulare<br>Mechanisms involved in regulating testicular function of Urodela Ambystoma rivulare |
| Timothy S. Balmer   | Physiology/Functional Morphology | Georgia State University                                   | Restriction of plasticity in adulthood by visual activity dependent regulation of inhibition  |
| Jennifer A. Breaux  | Physiology/Functional Morphology | Illinois State University                                  | Effects of larval population density on adult immune response to parasite challenge in Aedes aegypti  |
| Michael W. Butler   | Physiology/Functional Morphology | Arizona State University                                   | Effect of developmental versus adult diet on adult sexual coloration and immune function in mallard ducks   |
| Viviane Callier     | Physiology/Functional Morphology | Duke University  | Determinants of oxygen demand in the tobacco hornworm, Manduca sexta  |
| Matthew T. Close    | Physiology/Functional Morphology | Lehigh University  | Confocal imaging of highly-stretched snake lower jaw muscles.   |
| Nina C. Donner      | Physiology/Functional Morphology | University of Colorado at Boulder                          | Effects of chronic corticosterone on 5-HT1A and 5-HT1B serotonin receptor expression in the dorsal raphe nucleus(DRN)   |
| Diego C. Fernandez  | Physiology/Functional Morphology | Consejo Nacional de Investigaciones Científicas y Técnicas | Early alterations of the visual pathway in experimental diabetic retinopathy  |
| Miranda M. Gray     | Physiology/Functional Morphology | Kansas State University                                    | Bringing genomics outdoors: Next-generation sequencing project of dominant prairiegrass phenotypic variants occurring at opposing extremes of a precipitation gradient                |



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| Maria Laura Habegger | Physiology/Functional Morphology | University of South Florida                | Feeding morphology and biomechanics in billfishes (Families Xiphiidae and Istiophoridae)  |
| Caroline J. Harper   | Physiology/Functional Morphology | Brown University                           | The Morphology of the Papillae and Lingual Vessels in the Tongue of a Nectar-Feeding Bat, <i>Glossophaga soricina</i>   |
| Ashley M. Huber      | Physiology/Functional Morphology | Georgetown University                      | Does Resveratrol Induce Fast-to-Slow Phenotypic Shifts and Improve Oxidative Enzyme Concentrations in the Skeletal Muscle of Primates?                                      |
| Emily A. Kane        | Physiology/Functional Morphology | Clemson University                         | Functional tradeoffs in locomotor specialists: the effects of habitat on morphology, performance, and the integration of locomotion and feeding in Cottids                  |
| Anton I. Khalilieh   | Physiology/Functional Morphology | Ben-Gurion University of the Negev         | The physiological responses to food deprivation in a passerine bird ( <i>Passer domesticus</i> ) ostensibly not adapted to prolonged fasting                                |
| Alexandra M. Koba    | Physiology/Functional Morphology | San Francisco State University             | Art and Science of Anatomy: Hemisection of the Head and Neck  |
| Fredrick Larabee     | Physiology/Functional Morphology | University of Illinois at Urbana-Champaign | Structural Properties of a High-Performance Biological Material: Cuticle of the Trap-Jaw Mandible   |
| Carlos F. Morantes   | Physiology/Functional Morphology | Bellevue Community College                 | Evaluating volume-surface ratio in bee brains   |
| Cameron E. Naficy    | Physiology/Functional Morphology | University of Colorado at Boulder          | Evaluating the physiological basis for climate-induced forest dieback in <i>Nothofagus dombeyi</i> and <i>Austrocedrus chilensis</i> forests, Northern Patagonia, Argentina |

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| Stephanie A. Wolf    | Physiology/Functional Morphology | James Madison University             | Locomotor ontogeny and postcranial growth in <i>Propithecus verreauxi</i> and <i>Lemur catta</i> .                           |
| Qing Yan             | Physiology/Functional Morphology | University of Miami                  | The Role of an Expanded Glutamatergic Interneuron Population in the Motor Recovery of Zebrafish Glycine Transporter 1 Mutant |
| Mingna Zhuang        | Physiology/Functional Morphology | University of California-Berkeley    | Gliding Performance in the <i>Anolis</i> Genus   |
| Kiersten L. Berggren | Psychology                       | University of Wisconsin-Milwaukee    | Exercise and the Expression of Hypoxia-Inducible Factor - 1 alpha in the Hippocampus of the Adult Rat                        |
| William J. Flerlage  | Psychology                       | St. Mary's College of Maryland       | Incubation of cocaine-craving in the NVHL model of schizophrenia: Role of DeltaFosB  |
| Christopher J. Li    | Psychology                       | Duke University                      | Exploring the Relationship Between Mindfulness, Impulsivity, Neural Response to Reward and Dopamine                          |
| Katrina S. Rodzon    | Psychology                       | Utah State University                | Training Program for Self-Controlled Behavior in Children.   |
| Gretchen L. Sholty   | Psychology                       | University of California-Los Angeles | Psychobiological Determinants of Stress Reactivity in Schizophrenia  |
| Leanne M. Shulman    | Psychology                       | Middlebury College                   | The Effects of Sexual Experience on Memory and Perseverance in Adult Male Rats   |
| Fabian A. Soto       | Psychology                       | University of Iowa                   | General principles of visual object recognition  |
| Lee O. Villatoro     | Psychology                       | University of Wisconsin-Milwaukee    | Immediate versus delayed consequences of cerebellar damage on spatial processing in the Morris Water Maze                    |
| Da-Jiang Zheng       | Psychology                       | Oklahoma State University            | Social Recognition in Prairie Voles ( <i>Microtus Ochrogaster</i> ): Discriminating lovers from strangers                    |

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| Michael J. Andersen | Systematics/Evolutionary Biology | University of Kansas               | Using a multi-locus, coalescent framework to study patterns of genetic variation across an insular avian hybrid zone                         |
| Robert L. Baker     | Systematics/Evolutionary Biology | University of Colorado at Boulder  | Molecular Characterization of the Microevolution and Development of <i>Mimulus guttatus</i> Shoot Branching                                  |
| Emily S. Boward     | Systematics/Evolutionary Biology | Hood College                       | Characterizing Microsatellite DNA Diversity of Rusty Crayfish in Maryland  |
| Rebecca A. Chong    | Systematics/Evolutionary Biology | Colorado State University          | Disentangling the mechanisms driving genome expansion  |
| Aaron A. Comeault   | Systematics/Evolutionary Biology | University of Colorado at Boulder  | Local adaptation and genomic patterns of divergence in <i>Timema cristinae</i> walking-stick insects.  |
| Amanda Glazier      | Systematics/Evolutionary Biology | University of Massachusetts Boston | Investigation of the Depth Differentiation Hypothesis in Three Genera of Deep Sea Bivalves   |
| Melissa A. Johnson  | Systematics/Evolutionary Biology | University of Hawaii at Hilo       | The importance of geographic isolation in the evolution of reproductive barriers between species of Hawaiian <i>Cyrtandra</i> (Gesneriaceae) |
| Alicia M. Kennedy   | Systematics/Evolutionary Biology | Villanova University               | Stem Lepidosaurs from Driefontein: An Apomorphy Based Approach   |
| Skye N. Klingbeil   | Systematics/Evolutionary Biology | Portland State University          | Inheritance of a Heteroplasmic Mitochondrial DNA Mutation in <i>Caenorhabditis briggsae</i>  |
| Andrew C. Kraemer   | Systematics/Evolutionary Biology | Iowa State University              | Identifying the Proximate (Molecular) and Ultimate (Evolutionary) Mechanisms Driving a Color Polymorphism in a <i>Plethodon</i> Salamander   |

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| James J. Lewis           | Systematics/Evolutionary Biology | University of California-Irvine             | Is there a butterfly mimicry toolkit? Co-option vs. parallel evolution in wing pattern development  |
| Rafael Maia              | Systematics/Evolutionary Biology | University of Akron                         | Evolution and diversification of iridescent feather coloration in African Starlings   |
| Steven J. Micheletti     | Systematics/Evolutionary Biology | San Francisco State University              | Evolution of Adaptive Crypsis in Lava Field Dwelling Side-Blotched Lizards ( <i>Uta stansburiana</i> )  |
| Christopher L. Owen      | Systematics/Evolutionary Biology | University of Connecticut                   | A genomic perspective of the pattern and process of speciation among three sister cryptic species of Australian cicadas                         |
| Adam C. Pritchard        | Systematics/Evolutionary Biology | State University of New York at Stony Brook | The Phylogeny, Radiation, and Morphological Change Rates of Basal Diapsid Reptiles  |
| Daniel E. Runcie         | Systematics/Evolutionary Biology | Duke University                             | Heat shock responses and the evolution of robustness to thermal stress in development   |
| Arun Sethuraman          | Systematics/Evolutionary Biology | Iowa State University                       | Understanding genome-level effects of gene-flow in experimental evolution lines of temperature sensitive <i>Caenorhabditis elegans</i> mutants. |
| Kimberly A. Tenggardjaja | Systematics/Evolutionary Biology | University of California-Santa Cruz         | A Genetic Comparison of Endemic and Non-Endemic Damselfishes throughout the Hawaiian Archipelago  |
| Jeffery M. Tharp         | Systematics/Evolutionary Biology | Indiana State University                    | The effect of environmental variance on thermal acclimation capacity  |
| Andrew L. Verardo        | Systematics/Evolutionary Biology | Georgetown University                       | EVOLUTION OF PANCREATIC ENDO- AND EXOCRINE CELLS IN DEUTEROSTOMES   |
| Nathan Z. Gwyn           | Tectonics/Geophysics             | East Carolina University                    | Emplacement and growth of shallow, complex intrusions, Henry Mountains, Utah  |

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| Dean G. Hazle      | Tectonics/Geophysics | Hope College                      | Structural mapping and tectonic history in the the Stensjö-strand supracrustal belt, Halland Sweden                             |
| Jackie M. Langille | Tectonics/Geophysics | University of Tennessee-Knoxville | Extension in the convergent Himalaya: Quantitative constraints on extension accommodated by the Leo Pargil shear zone, NW India |
| Zachery Lifton     | Tectonics/Geophysics | Georgia Institute of Technology   | Refining geodetic rates of deformation in the central Walker Lane with a new densified GPS network                              |
| D. Sarah Stamps    | Tectonics/Geophysics | Purdue University-West Lafayette  | Kinematic constraints on the Lwandle-Somalian plate boundary across Madagascar from GPS geodesy                                 |