

MAY 2018 BIOLOGY HONORS GRADUATES

Student Name	Research Supervisor	Research Department	Thesis Title
Nadège Aoki	Carl Hopkins	Neurobiology & Behavior	Discovery, diagnosis, and description of <i>Paramormyrops okano</i> , a new cryptic species of African weakly electric fish (Osteoglossomorpha: Mormyridae) from the Okano River of Gabon
Katherine Barlow	Ron Harris-Warrick	Neurobiology & Behavior	Norepinephrine and the rostral-caudal spinal gradient of rhythmicity in the locomotor central pattern generator of neonatal mice
Dhanesh Binda	Kristy Richards	Biomedical Sciences	SMOC-2 suppression in Diffuse Large B-Cell Lymphoma may confer resistance rituximab
Maya Biswas	Charles Aquadro	Molecular Biology & Genetics	Creating a bag of marbles gene hypomorph in <i>Drosophila simulans</i> using CRISPR/Cas9 gene editing
Suhas Bobba	Joe Peters	Microbiology	Towards a genetic method for analyzing protein subdomains in Tn7 transposition proteins
Marielisa Cabrera	Matthew P. DeLisa	Chemical Engineering	Engineering O-glycosylation of proteins in <i>Escherichia coli</i>
Fiona Chen	Nicholas Buchon	Entomology	Identification of genes involved in the regulation of intestinal stem cell activity that are necessary to maintain gut homeostasis in <i>Drosophila melanogaster</i>
Yi Fan Chen	Chris Fromme	Molecular Biology & Genetics	Mutational and proteomics approaches to investigate the regulatory mechanisms of Golgi trafficking

Na Yun (Christina) Cho	Christiane Linster	Neurobiology & Behavior	The different effects of cholinergic neuromodulation via muscarinic and nicotinic receptors on olfactory discrimination learning
Ji Whae Choi	Fenghua Hu	Weill Institute of Cell & Molecular Biology	Studying the role of C9orf72 in ALS and FTLN
Matthew Donnelly	Jonathan Butcher	Biomedical Engineering	Cadherin-11 overexpression in the aortic valve endothelium results in endothelial dysfunction via a Rac1/ β -catenin dependent pathway
Yimeng Fang	Paula Cohen	Biomedical Sciences	Elucidating the function of MSH5 c-terminus in mammalian meiosis
Rachel Giorgio	Dwight Bowman	Microbiology & Immunology	The use of reverse line-blot hybridization for the detection of trichostrongylid nematodes in small ruminants
Annika Gomez	Keith Perry	Plant Pathology & Microbe Biology	Small interfering RNA-based survey of viruses infecting wild and cultivated grapevines in the New York Finger Lakes region
Claire Hacker	Cliff Kraft	Natural Resources	Heat shock protein hsp70 as a metric of thermal stress in brook trout, <i>Salvelinus fontinalis</i>
Kasey Han	Melissa Warden	Neurobiology & Behavior	Functional connectivity of lateral habenula neurons in conditioned and unconditioned fear
Benedict Harvey	Susan Suarez	Biomedical Sciences	Fluid elasticity: the facilitation of collective group swimming of sperm in the presence of viscoelastic fluids

Megan He	Gerlinde Van de Walle	Baker Institute for Animal Health	Equine mesenchymal stromal cell (MSC) secreted tenascin-C and PAI-1 promote fibroblast migration <i>in vitro</i>
Lukin Jacob	Alison Power	Ecology & Evolutionary Biology	Effects of competition and nutrient supplementation on garlic mustard (<i>Alliaria petiolata</i>) and Dame's Rocket (<i>Hesperis matronalis</i>) physical traits
Karuna Katariwala	Donna Cassidy-Hanley	Microbiology & Immunology	Modification of the germline nucleus of the bi-nucleated ciliate, <i>Tetrahymena thermophila</i> , with the Cre-loxP recombinase system
Jacob Kolenda	Christiane Linster	Neurobiology & Behavior	Sufficiency of the anterior olfactory nucleus in a contextual olfactory task
Huy Le	Jian Hua	Plant Biology	<i>AL1</i> knockout mutants express temperature-dependent lesion mimic phenotypes in <i>Arabidopsis thaliana</i>
April Lee	Joshua Chappie	Molecular Medicine	Structural and functional insights into the OLD family nucleases
Vladlena Lee	Melissa Warden	Neurobiology & Behavior	Lateral habenula and dopaminergic ventral tegmental area neurons encode the motivational state of mice
Mackenzie Lemieux	Melissa Warden	Neurobiology & Behavior	Brain strains: optimization of immunohistochemical techniques in cleared thick neural tissue
Nicola Love	Mike Webster	Neurobiology & Behavior	Blue jay eavesdropping on predator information encoded in tufted titmouse alarm calls
Marcos Lu Wang	Nicolas Buchon	Entomology	Physiological response in <i>Drosophila melanogaster</i> larvae after microbial infection

Rosa (Xueyan) Ma	Alon Keinan	Biological Statistics & Computation Biology	Identification of the pseudoautosomal region 1 length polymorphism in human populations
Reed Macey	Song Lin	Chemistry & Chemical Biology	Synthesizing highly functionalized pharmacological drug intermediates through electrochemical dibromination and azidoxygenation of olefins
Katherine McBride	David Deitcher	Neurobiology & Behavior	Neuronal activity of <i>Julius Seizure</i> -expressing neurons and hyper-excitability in adult <i>Drosophila</i>
Sean W. McHugh	Kelly Zamudio	Ecology & Evolutionary Biology	Evolution of body size and sexual size dimorphism in tortoises
Derek Nie	Ronald Harris-Warrick	Neurobiology & Behavior	Hemicord locomotion with strchynine and picrotoxin reveals an excitatory interneuron connection between flexors and extensors in the neonate mouse spinal cord
Yiming Niu	Joshua Chappie	Biomedical Sciences	The N-terminal domain of <i>Staphylothermus marinus</i> McrB shares structural homology with eukaryotic RNA binding proteins
Dennis Delasi Nyanyo	Nozomi Nishimura	Biomedical Engineering	Development of methods for in vivo investigation of tumor cells, interactions with innate immune cells and metastasis
Flavio Umeda Pacheco	Avery August	Microbiology & Immunology	The role of <i>Rag1</i> , <i>Mhc1</i> , and <i>Mhc2</i> genes in the innate lymphoid cell development
Sarah Park	David Deitcher	Neurobiology & Behavior	Na ⁺ /K ⁺ ATPase α -subunit is a promising protein partner of epilepsy-causing protein, <i>Julius Seizure</i> , in <i>Drosophila</i>

Kyle Pellegrino	Melissa Warden	Neurobiology & Behavior	Monosynaptic tracing of VTA-projecting iPFC neurons using G-deleted rabies virus
Ceili Peng	Robert Reed	Ecology & Evolutionary Biology	Functional characterization of laccase 2 in <i>Vanessa cardui</i> pigmentation and cuticle sclerotization
Adrienne Pisch	Marla Lujan	Nutritional Sciences	2D and 3D ultrasonographic methods versus the 2D grid method for the evaluation of ovarian morphology
James Purcell	Vanya Rohwer	Ecology & Evolutionary Biology	Latitudinal shifts in incubation behavior of a widespread songbird
Jeremy Pustilnik	Jeremy Searle	Ecology & Evolutionary Biology	The effects of red fox (<i>Vulpes vulpes</i>) predator scent on winter burrow use by eastern cottontail rabbits (<i>Sylvilagus floridanus</i>)
Alyssa Rodriguez	Maren Vitousek	Ecology & Evolutionary Biology	Exploring color-physiology relationships across two populations of tree swallows, <i>Tachycineta bicolor</i>
Nathan Sarkar	Saurabh Mehta	Nutritional Sciences	A capillary paper biofluid viscometer
Colin Sears	Jeffrey Scott	Entomology	Patterns of resistance and cross-resistance to pyrethroids and organophosphates in a strain of <i>Aedes aegypti</i> with <i>kdr</i> and CYP-mediated resistance
Jason Shandler	Eric Richards	Boyce Thompson Institute	Search for novel factors affecting nuclear structure and function in <i>Arabidopsis thaliana</i>

Sonali Srivastava	Claudia Fischbach-Teschl	Biomedical Engineering	Applications of a mineral-containing 3D scaffold model to study the characteristics of ductal carcinoma in situ
Madisen Swallow	Nozomi Nishimura	Biomedical Engineering	Inhibiting Nox2 and PARP increases cortical blood flow and reduces capillary stalling in a mouse model of Alzheimer's disease
Daniel Szabo	Melanie Filiatrault	Plant Pathology & Microbe Biology	Identification of protein interaction partners of two-component system CvsSR in <i>Pseudomonas syringae</i> pathovar <i>tomato</i> DC3000
Solveig Antoinette van der Vegt	Chris Fromme	Weill Institute of Cell & Molecular Biology	TRAPP complex substrate specificity is mediated by the RAP GTPas hypervariable domain
Akila Venkataramany	Andrew Grimson	Molecular Biology & Genetics	Investigating the role of 3' UTR length in post-transcriptional gene regulation
Gabrielle Villafana	Kelly Liu	Molecular Biology & Genetics	Genetic analysis of new mutations affecting the bone morphogenetic protein (BMP) signaling pathway in <i>C. elegans</i>
Aboubacar Wague	Marcos Simoes-Costa	Molecular Biology & Genetics	Investigating the regulation and function of transcription factor EBF1 in neural crest cells
David Wang	Alon Keinan	Biological Statistics & Computational Biology	Comparative analysis of 48 Indian subpopulations and Andaman islanders reveals opposite patterns of dietary adaptation of <i>FADS</i> genes
Jane Wei	Claudia Fischbach-Teschl	Biomedical Engineering	Collagen fiber alignment regulates endothelial network formation and alignment

Caroline Wollman	Heidi Reesink	Veterinary Sciences	Mineralization and crystal structure in the proximal sesamoid bone of thoroughbred racehorses
William Woodruff	Richard Cerione	Chemistry & Chemical Biology	The effects of oncogenic KRAS expression on glutamine metabolism in mouse embryonic fibroblasts
Yunwei (June) Xia	Soon Hon Cheong	Clinical Sciences	Metagenomic analysis of the equine placental microbiome
Stephanie Yan	Scott Emr	Weill Institute of Cell & Molecular Biology	Mutations on the cytoplasmic face of the transmembrane protein Mup1 block downregulation by the Art1-Rsp5 ubiquitin ligase complex
Qiuwei Yang	Melissa Warden	Neurobiology & Behavior	Contribution of serotonergic projections from the dorsal raphe nucleus to the prefrontal cortex to active fear response in rodents
Justin Zhu	Jun Liu	Molecular Biology & Genetics	Investigation of modulators and sma-9 suppressor mutations in the BMP signaling pathway in <i>C. elegans</i>
