

Graduates with Distinction in Biology

Perisa Ashar, Associations of biomarkers with epicardial adipose tissue volume and density in cardiovascular risk assessment: insights from the PROMISE trial

Kylie Azizzadeh, Effects of *APOE4* on the metabolome in human *NOS2* mice

Sasha Bacot, *Fndc-1* mitophagy performs intergenerational mtDNA quality control in *C. elegans*

Jason Dee Bao, Increased brain prefrontal-subcortical white matter connectivity in patients with fibromyalgia: potential compensatory mechanism for pain

Asha Nicole Bashir Lopez, Reproductive and movement patterns of Tamanend's bottlenose dolphins (*Tursiops erebennus*) estuarine and coastal ecotypes in the Chesapeake Bay

Maya Brookens, Sea urchin (*Lytechinus variegatus*) population at the northern range-edge fatally vulnerable to 1°C above the current peak temperature

Madison Butler, Analyzing variants in the *TTN* and *Na⁺/K⁺-ATP1A* gene family to determine their association with cardiomyopathy

Matthew Chen, Investigating the ligand-binding characteristics of cys-less MtrR in *Neisseria gonorrhoeae*

Eugene Cho, Gut microbiota-induced immune shifts reduce checkpoint efficacy in a glioma murine model

Kaia Close, Disruption of a phosphatase regulatory protein in *Cryptococcus deneoformans* confers enhanced thermotolerance and cell integrity at high temperatures

Maxwell Collins, Using video-based approaches to census the aquatic community surrounding oyster aquaculture and natural reef structures in Delaware Bay, USA

Lydia Cox, Herbarium collections assist with disentangling the effects of climate change on flowering phenology of native carnivorous plants

Sophia Cox, Is land cover associated with ground invertebrate diversity?

Supta Das, Investigation of a genetic vulnerability that is unique to *CIC::DUX4* sarcoma

Tomás S. Delgado, Exploring the stress gradient hypothesis: the impact of stress on fungal root endophytes from Alligator River National Wildlife Refuge, North Carolina

Erin Dollard, Challenges in heritable genetic editing in *Junonia* butterflies using CRISPR and PiggyBac

Sophia Egge, Transient TrkB kinase inhibition increases seizure threshold in amygdala kindling mouse model of epilepsy

Rachel Field, Molecular and cellular impacts of UBE2A mutations linked to UBE2A Deficiency Syndrome/XLID type Nascimento

Maxwell Forte, Evaluating variable performance impact of novel sodium bicarbonate dosing protocol in elite track and field athletes

Catherine Gamard, Investigating new methodology for diagnosing brucellosis in stranded cetaceans

Paloma Denise Garcia, Uncovering the antagonistic balance of cytokines GM-CSF and IFN- β during mycobacterial infection of macrophages

Santiago Garcia, Enhancing chemotherapeutic efficacy in ovarian cancer with omega-5 fatty acids and BMX-001 supplementation

Joshua Mathieu Gilmer, Bacterial impact on plant cuticle at elevated temperature

Riley Hamp, Investigating the impact of integrin $\beta 4$ expression glycosylation inhibitors in pancreatic cancer progression

Hansel A. Heres, The systematic response of the spleen in CD4⁺ T cell and T-reg regulation and its implications for post-traumatic arthritis

Kaeden K. Hill, Mitochondrial function in B cell lymphomas promoted by sirtuin-2 activity

Camryn Johnson, Characterizing novel populations of spp1⁺ macrophages and vcaml⁺ FAPs in chronic limb threatening ischemia

Cecilia Jane Joshi, Bounce dives as a hypoxic preconditioning mechanism in deep-diving marine mammals

Elena Karas, Spatial transcriptomics reveal an epithelial component of the early HER2 tumor microenvironment

Mainur Khan, Distal airway cellular disruption and respiratory insufficiency after lung injury in Pompe disease

Maia Kotelanski, Investigation of the regulation of the MCT1-BSG axis by ABL kinases

Erika Kraabel, A comparative study of baleen whale body morphometrics using UAS imagery and historical whaling data

Camille Jena Krejdovsky, Defining cellular host genes governing the susceptibility of epithelial cells to infection with Epstein-Barr virus

Sophia Lehrman, Parkinson's Disease linked D620N VPS35 pathology

Kaylee McKinzie, Mitochondrial adaptations enable hypoxia tolerance in Goose-Beaked Whales (*Ziphius cavirostris*) through enhanced oxidative metabolism

Carmen Laura Miller Arenas, Structural determinants of long-chain fatty acid recognition by olfactory receptor Or52e5

Ethan Duc-Nam Nguyen, Ovarian cancer cell response to lipid exposure: a model for cancer progression and chemotherapy resistance

Nhi Ngoc Yen Nguyen, Structure and biochemical studies on *Neisseria meningitidis* MtrR: understanding the mechanism of multidrug resistance of a human pathogen

Jackson D Nowacek, Analysis of behavior and fitness in cooperative breeding red-cockaded woodpecker

Adetomi Oderinde, Opposing effects of acute and chronic clenbuterol administration on survival of the Mash1[±] mouse model of alternating hemiplegia of childhood

Alexander Ozonoff, Redefining the role of β -arrestins: allosteric modulation of MAPK signaling pathways

Nirali Patel, Evaluation of novel patient-derived alpha-synuclein fibril conformations in Parkinson's disease models

Porter Petruzzello, Investigating sphingolipids' role in Apicomplexan invasion and development

Annie Qin, Characterizing the effect of metal ions on the ubiquitous binding of flavonoids to RNA secondary and tertiary structures

Kavya Ramamurthy, Visualizing growth dynamics and estrogen independent growth in an ER⁺ mammary tumor cell line

Astha Ray, Cell crowding induces differentiation of alveolar stem cells into aberrant basaloid cells in an organoid model investigating idiopathic pulmonary fibrosis

Nicole Read, Salinity-induced shifts in microbial community composition and greenhouse gas production in freshwater wetlands

Jordan Reaves, Characterizing the functional domains of VIRMA in targeting the m⁶A methyltransferase complex to hepatitis C viral RNA

Ethan Rehder, Genetic determinants of survival of the bacterium *Phocaeicola vulgatus* in human-built aerobic environments

Jocelyn Reyes, Investigating the role of CTRP4 in modulating inflammation due to perinatal hypoxic-ischemic encephalopathy

Hailey Rodriguez, G protein-coupled receptor kinase and sirtuin 3: uncovering a novel protein-protein interaction mediated by s-nitrosylation

Angelina Sala, From Bench to Bedside: Investigating the molecular mechanisms of sudden cardiac death while exploring stakeholder perspectives on risk predictive genetic testing

Lauren Sar, 14-3-3 ϵ UFMylation regulates antiviral innate immune signaling

Emma Sardy, Chromosome and alpha satellite stability of dicentric X chromosomes

Rylan Sensabaugh, Composition, size, and stability of X alpha satellite-derived HACs

Neha Shaw, Exploring predictive effects of Epstein-Barr Virus DNA levels on nasopharyngeal cancer staging and relapse

Sam Shi, Novel plague receptors: direct interactions between extracellular domains of lymphocyte receptor FCRLs and *Yersinia pestis* facilitate invasion into host cells

Aanvi Somany, Effect of e-cigarettes on placental development: expression of PTGS2 and associated pathways in sexed murine placenta

Riley Susan Spingler, Effects of *cis*- and *trans*-acting factors on alternative splicing of AR-V7

Lia Ruth Sprouse, A role for IL-10 and IFN γ in modulating sepsis in an *Irgm1*-deficient mouse model

Libertad Tejada, Sex differences in MAPK/Erk signaling response in cardiomyocytes

Anna Tornatore, Optimization of bacterial voltage-gated sodium channel gene therapy for the treatment of heart failure

Olivia Villaverde, TPL2: a master regulator of antimicrobial peptide production in the intestine

Elena Cortez Webber, Synaptosomal neurotransmission and bioenergetics are impacted by hyperbaric oxygen exposure in mice

Ethan Whitehouse-Gurwitch, Elucidating humidity-clock interplay in *Arabidopsis*

Grant Williams, Transcriptomic analysis of stimulated iNKT cells reveals upregulation of IL10 and LY6E that could potentially impact the outcomes of liver damage during HIV/HCV coinfection

Melat Woldetensae, PFOS water pollution and combination antiretroviral therapy for HIV interact to strain cardiac structure and function

Yochebed Woldeyohannes, Neuro-respiratory pathology in the Prp-TDP43^{A315T} mouse model of amyotrophic lateral sclerosis (ALS)

James Yang, Characterization of radioresistant T cells

Kevin Yang, Selective inhibition of *Bartonella henselae* PurM: a novel strategy for pathogen-specific antibacterial therapy

Jennifer Yoon, Chemical contaminants in marine debris: plastic additives disrupt gene expression in the oxidative stress response pathway

Yuzhe Yuan, Selective nuclear transport during plant effector-triggered immunity

Lisa Zuo, Novel targeted therapeutic strategies for small cell lung cancer