Graduates with Distinction in Biology

Claudia Barreto, Reconstructing a cardiac regeneration niche in cardiac organoids

Elizabeth Boger, Discovering antimalarial activity within heat shock protein inhibitors

Katherine Burkman, Mapping the epigenetic landscape of colorectal cancer: model generation and assay optimization as a foundation for large-scale enhancer identification

Julia Caci, Chromosomal instability drives a dependence on mitotic regulators in metastatic cancer

Jordan Campbell, Examining the role of an induced transcription factor during zebrafish fin regeneration

Linda Cao, The tumor microenvironment impedes T cell recruitment by interfering with dendritic cell expression of CXCL9

Ayra Charania, Ameliorating gastrointestinal acute radiation syndrome through manipulating Hippo and STING pathways

Erica Chen, Exploring the impact of surgical size-reduction on inner ear canal development in zebrafish embryos

Alexa Catherine Clegg, Developing neurodegenerative models of Parkinson's associated α-synuclein toxicity in *Saccharomyces cerevisiae*

Jayden Cyrus, The role of glia in motor neuron disease: Draper acts in wrapping and perineurial glia to induce neuronal toxicity

Carina Elaine Dagotto, Evaluating mechanisms of dormant tumor immune evasion via DKK3 and long-term persistence via Sox9

Alina Diaz Fernandez, Study of angiotensin II type I receptor allosteric ligands' bias via analysis of ERK temporal activation

Marley Dooling, Links between temperature, salinity, and skin lesions on common bottlenose dolphins in the Chesapeake Bay: a pilot study

Rhiannon Eplett, Administration mechanism as a determinant of the innate immune response to intracellular bacterium *Francisella novicida*

John Fallon, The role of neutrophils in meibomian gland dysfunction immunopathogenesis: insights and pathohistological alterations

Daniella Galtes, β-arrestin deletion blunts the innate immune response in murine CVB3 myocarditis

Meera Donthireddy Gangasani, Region-specific asymmetry in ploidy plays a functional role in larval salivary gland development in *Drosophila Melanogaster*

James Carl Gaspar, A tripartite field theoretic account of error-making within goal-directed systems

Manashwee Ghimire, Piezo localization in the membrane of Neuro-2-A cells

Samantha Gottlieb, Meiotic drive and lethal mutations: investigating the role of segregation distortion in maintaining lethal alleles in natural populations of *Drosophila melanogaster*

Abby Groth, Characterizing a novel mouse model for diffuse midline gliomas harboring activating, truncating mutations in the oncogenic phosphatase PPM1D

Aydin Ata Gultekin, Necroptosis of Schwann cells as a possible mechanism underlying diabetic bladder dysfunction

Sonali Harris, The differential regulation of skeletal muscle-specific gene expression by Cbx1, PurB, and Sp3

Meredith L. Huston, Proteomic changes in Pompe mouse medullas following acute intermittent hypoxia

Sean Kehoe, Treatment of emerging neuropathology in Pompe disease: gene therapy as a novel alternative to enzyme replacement therapy

Katherine Krieger, A safer "forever chemical": modern substitute GenX is less toxic than PFOA in human liver model

Advika Kumar, Crystalline silica inhalation modulates Yaa+ male BXSB lupus

Michelle Kwan, Developing an emission spectra unmixing algorithm to characterize multiple metabolic endpoints of aggressive breast cancer

Choi Sang Daniel Lam, Investigating the long-lived nature of neuropod cells

Alexandra (Alex) Malia LaTrenta, Generating diagnostic antibodies for Lujo virus by M13 phage display

Kaitlyn Lewars, The impact of age on ozone-induced time course responses in rodents

Julia Lin, Regulation of second messenger signal in self-tolerance

Jessica Lipschultz, Trap size is the main phenotypic driver of prey capture in the at-risk Venus flytrap

Rebecca Liu, Identifying DAF-16/FOXO target genes governing oocyte provisioning in response to nutrient stress

Richard Liu, Novel generation and functional analysis of a dab2 transcriptional reporter line for characterizing lysosome-rich enterocytes (LREs) in zebrafish model

Katherine Long, WDR5 revealed as putative glioblastoma radiosensitizer in CRISPR screen

Brennan D. McDonald, Single-cell transcriptomics reveals the biphasic regulation of development in a sea urchin with non-feeding larvae

Madison McMichael, Identification of microRNAs involved in crystalline silica–induced autoimmune disorders

Emily Zhang Yuxin Miller, Assessing the effects of a new glioma drug: pro- and anti-tumorigenic effects of AG-881 in mutant-IDH1 gliomas

Skylar Montague Redecke, Identification of cis-acting elements and trans-acting factors that regulate expression of the progesterone receptor gene PGR in the uterus

Patrick Nguyen, Carbon catabolite repression 4 – negative on TATA-less complex mediated regulation of gene expression in the *Drosophila* brain

Taylor Nguyen, Novel combination therapy for medulloblastoma and other MYC-driven cancers: targeting BRD4 in hypertranscription states

Lily Orta, Molecular and cellular mechanisms of inflammasome creation through TRPV4 signaling in human skin

Samantha Owusu-Antwi, Characterization of a small animal model for high-throughput screening of end-stage kidney disease novel therapeutics

***Alicia Nicole Pagliery,** Reducing the severity of whale entanglements: the potential of absorbable sutures in fishing ropes

Esha Patel, Chromatin mechanisms underlying BDNF-dependent activation of cerebellar genes

Saajan Vipul Patel, Characterization of allosteric modulators for the angiotensin type 1 receptor *in vitro*

***Vignesh Pirapaharan**, Investigating the link between glyphosate and chronic kidney disease of unknown origin (CKDu) through glyphosate's interactions with renal proteins in molecular docking

Mira Polishook, Fungi of the Duke Forest

Zachary Pracher, FIRE-KRAB: rapid, inducible CRISPRi technology to investigate embryonic mesodermal diversification in the green sea urchin, *Lytechinus variegatus*

Abby Saks, The effects of 13 years of regenerative agriculture on soil health: is it truly "dirt to soil"?

Evelyn Scarrow, Duchenne muscular dystrophy and the impact of deficiencies in structural proteins dystrophin and utrophin in neuro-respiratory control centers

Ashka Shah, Interleukin-34 signaling decreases microglia phagocytosis and increases synapses in development

Kevin Sheng, Mechanisms of tumor-endothelial cell interactions independent of VEGF

Michael Sheyner, Modulating olfactory receptor activity through a consensus-engineered receptor

Jonathan Shi, DSCovery: investigating the role of the DSC1 channel in mosquito neurophysiology

Brianna Smith, Designing and testing dCas9 fusion proteins that can function as transcriptional activators

Grace Sorensen, Flaviviridae are differentially regulated during infection by UFL1, the E3 ligase for UFMylation

Ryan Robert Spangler, Cell-mediated xenogeneic responses in highly-sensitized non-human primates: implications for xenotransplantation

Clare Sparling, Select mitochondrial toxicants induce an enhanced RNA interference response in *C. elegans*

Nathan T. Strang, Host factors in mycobacterial infection: uncovering the role of apolipoprotein db

Daniel Daemyung Sul, Investigating the molecular mechanism of the outer limiting membrane (OLM) hole formation via visualization of crumbs homologue 1 (CRB1) null mice retina

Casey Syal, Exploring multiple mechanisms of recurrence in doxorubicin-resistant osteosarcoma

Reah Syed, Brain-wide dynamics of sleep in mouse models of neuropsychiatric disorders

Jeffery Tan, Multiplexed procedure for Nanopore sequencing and downstream analysis of AAV vector genomes

Lila Taylor, Impact of aged tumor microenvironment and chemosensitivity on sub-types of ovarian cancer

Jordan Tran, Reduction of radiation-induced colorectal inflammation through deletion of Camkk2

Rachel Washart, PKN2-TAZ signaling is an exploitable dependency in mesenchymal cancers

***Ayla Weiss**, Perinatal healthcare, risk perception and ENDS use during pregnancy

Lindsey Weyant, The effects of climatic variables on Soprano pipistrelle (*Pipistrellus pygmaeus*) bat call activity in the urban environment of Copenhagen, Denmark

Helen Xu, Early diagnosis of fungal infection talaromycosis using novel interferon-gamma release assays;
*Predicting dose-dependent drug responses in bacterial populations using variational autoencoders and multilayer perceptrons

Satya Yalamanchi, Determining the impact of aging on the expression of genes regulated by codon bias

Isaac Yang, The role of Ric8 in inducing unisexual reproduction, a generator of fungal pathogen diversity, in *Cryptococcus neoformans* and *Cryptococcus gattii*

Jeremy Yarden, Understanding the molecular basis for trifluoperazine's efficacy in glioblastoma

Sue Zhang, The role of NFATC gene variants in the etiology and pathogenesis of nephrotic syndrome

Justin Zhao, Generating snoRNA-guided Programmable 2'-O-methylation

*Graduation with Distinction Outside the Major