2026 Summer Research Program – Mentor List

This list is comprised of faculty who have reached out and are looking to work with students over the summer on a project. Mentors are not limited to those on this list.

FACULTY MEMBER	AREA OF RESEARCH
Aarnes, Turi DVM, MS, DACVAA Professor Aarnes.1@osu.edu Veterinary Clinical Sciences	• Pharmacology/pharmacokinetics • Anesthesia/analgesia in small and large animals
Arruda, Andreia DVM, MS, PhD Associate Professor Arruda.13@osu.edu Department of Veterinary Preventive Medicine	• My area of research relies on the epidemiology of infectious diseases in food animal populations. • Projects available would involve investigating emerging or re-emerging diseases that are important for producers and veterinarians, in order to better understand their spread, control and prevention within and between farms in the U.S. Several projects are also related to building or developing better biosecurity and emergency response protocols in the U.S. and beyond. Even though sometimes data-based, all my projects have a direct field application with components of networking and direct contact with the industry for feedback/ dissemination of results purposes. A lot of my projects are related to swine and, more recent, cattle.
Berrian, Amanda DVM, PhD, MPH, DACVPM Associate Professor Berrian.4@osu.edu Department of Veterinary Preventive Medicine	Dr. Berrian is a veterinary epidemiologist with a focus area in Global One Health, including zoonotic diseases and environmental health. Current projects involve: • Veterinary / One Health education and workforce development • Global veterinary capacity building (current geographic focus: Africa, SE Asia) • Climate, planetary health and sustainability
Bracha, Shay DVM, MS, DACVIM (oncology) Associate Professor, Medical Oncology Bracha.2@osu.edu Department of Veterinary Clinical Sciences	• Dr. Shay Bracha's laboratory carries out comparative cancer research through the study of genes and proteins for disease detection and novel therapies. His work has focused on studying the contents of exosomes (small packets of protein, amino acids, and DNA) found in the blood stream

	of patients with cancer. These exosomes can carry biomarkers that predict disease stage, drug resistance, and prognosis as well as shape the microenvironment within the tumor itself. Dr. Bracha studies ways to decode these exosomes to identify new treatment targets for animals with osteosarcoma (bone cancer) and other types of tumors.
Burns, Teresa DVM, PhD, DACVIM Associate Professor, Equine Internal Medicine Burns.402@osu.edu Department of Veterinary Clinical Sciences https://vet.osu.edu/burns-teresa	• Laminitis • Endocrine diseases of horses
Garabed, Rebecca VMD, MPVM, PhD Professor Department of Veterinary Preventive Medicine Garabed.1@osu.edu https://vet.osu.edu/garabed-rebecca	• My research looks at drivers for endemic infectious diseases of many different species (recently: cattle, free roaming dogs and cats, humans, mosquitoes, and aquatic ecology). Some projects include data analysis, machine learning, and mathematical modeling, but others include field data collection components and components to make materials to communicate research to different audiences. I am happy to find something that fits your interests within the scope of what I have.
Habing, Greg DVM, PhD Associate Professor Department of Veterinary Preventive Medicine Habing.4@osu.edu http://vet.osu.edu/habing-greg	The overall goal of our research program is to enhance antimicrobial stewardship on dairy farms and investigate the epidemiology and transmission of zoonotic foodborne diseases within livestock production systems. Summer research students will contribute to one of the broader goals of the laboratory, with specific projects assigned based on their experience and interests. Opportunities include: • A project focusing on the epidemiology of *Salmonella Dublin* in calf and dairy production systems, utilizing a combination of fieldwork and microbiological techniques. • A project aimed at implementing antimicrobial stewardship interventions on dairy farms, including measuring antimicrobial use within dairy and calf production systems.

Hale, Vanessa MAT, DVM, PhD Assistant Professor Hale.502@osu.edu Hale Lab Website Department of Veterinary Preventive Medicine	• Environmental chemical exposures can increase the risk of developing cancer in dogs and in humans. • But how might the microbes living in or on us (our microbiome) metabolize these chemicals? • Could microbes increase or decrease risks associated with chemical exposures? • This summer project will focus on examining the growth and metabolism of gut and urine associated microbes grown in the presence the environmental chemical benzo[a]pyrene (BaP). BaP is a chemical produced by partial combustion and is found in automobile emissions, cigarette smoke, and charred foods. Determining if and how microbes metabolize BaP will establish a microbe – chemical – host framework that could alter the way we approach cancer development and treatment.
Hamideh Esmaeilzadeh DVM, MSC, DACVP (Clinical Pathology) Assistant Professor Department of Veterinary Biosciences Esmaeilzadeh.3@osu.edu https://vet.osu.edu/people/hamideh-esmaeilzadeh	• Research Program: The role of folate receptors in liver tissue in normal/healthy dogs and dogs with confirmed diagnosis of hepatocellular carcinoma and hyperplasia. • Goals: To understand the level of expression of folate receptors in normal/disease processes and compare the intensity of expression at different stages of disease (early versus advanced) using immunofluorescence staining on the unstained histology tissue. To investigate factors involved in poorly differentiated carcinoma and poor prognosis of the diseases and to examine cytological-histopathology correlation of liver samples that were diagnosed as hyperplasia and carcinoma.
Herron, Meghan DVM Sr. Director Behavioral Medicine, Education and Outreach Gigi's mherron@gigis.org 614-356-8081 ext. 313	• Gigi's is a shelter organization dedicated to improving the lives of shelter dogs with an emphasis on dogs from underserved, rural communities. We offer state-of-the-art medical and behavioral care, including a Canine Parvovirus Treatment Center, where dogs from shelter and rescue

This project will be in collaboration with Dr. Winston at OSU CVM	organizations across the state of Ohio can be treated for this deadly disease at a low-cost. • Dr. Meghan Herron is a boarded veterinary behaviorist and the Senior Director of Behavioral Medicine, Research, Education, and Outreach at Gigi's with research interests that include early socialization interventions for puppies in shelter environments, including puppies exposed to, being treated for, and recovering from Canine Parvovirus. • She works with a team of behavior and medical professionals and to ensure cohesion between medical and behavior aspects of all dogs under Gigi's care. • Summer research opportunities are available for students interested in protocols that allow for safe socialization in a shelter environment, as well as how innovative CPV treatments can shorten hospitalization times and maximize their fleeting socialization window.
Jennings, Ryan DVM, PhD Associate Professor-Clinical Anatomic Pathology Training Program Coordinator Jennings.398@osu.edu Department of Veterinary Biosciences https://vet.osu.edu/about-us/people/ryan-jennings	• Utilizing digital image analysis in evaluating prognostic factors in mast cell disease and dermatological diseases
Kim, DS PhD Assistant Professor Kim.9587@osu.edu Department of Veterinary Biosciences https://vet.osu.edu/people/dongsung-kim	• Research interest: Cancer (lung, colorectal, pancreatic) Biology. • The lab uses newly developed small molecule inhibitors targeting KRAS oncoprotein. • Projects will involve using biochemical, proteomic and genomic approaches to identify novel therapies.
Karniychuk, Vladi DVM, PhD Assistant Professor Karniychuk.1@osu.edu Department of Veterinary Biosciences https://vet.osu.edu/about-us/people/vladi-karniychuk	• Virus genome biology • Interactions of wild-type and CpG dinucleotide-enriched viruses with host proteins • Development live vaccines • Development oncolytic viruses • Flavivirus pathogenesis • Non-vector flavivirus transmission • Virus interactions with pregnant host and

	fetus
Lakritz, Jeff DVM, PhD Professor Department of Veterinary Clinical Sciences Lakritz.1@osu.edu https://vet.osu.edu/people/jeffrey-lakritz	• A retrospective review of urinary blockage of small ruminant case management, 2003 to present. The study involves record review, procedure comparative analysis, subsequent statistical analysis and prognostic factors. In addition to working with Dr. Lakritz additional interactions with the following FA team members (Drs. Carman, Neihaus, and Lozier) will be associated with this summer research project.
Li, Haichang DVM, PhD Assistant Professor Department of Veterinary Biosciences 454 VMAB li.3714@osu.edu Haichang.li@osumc.edu https://vet.osu.edu/about-us/people/haichang-li	• My current research focuses on cancer research and regenerative medicine. • As the PI or co-Is on several NIH-funded grants, I have been actively participating multiple research projects to understand the mechanism of MG53 in tissue repair, which is reflected in my multiple first- and co-author papers in peer-review journals including JBC; Nat Commun; Sci Transl Med; Diabetes; Am J Respir Crit Care Med; J Cell Mol Med; and Kidney International. • Most recently, our study uncovered a novel function for MG53 as a tumor suppressor by targeting G3BP2/SG signaling in non-small cell lung cancers (NSCLCs) (Li et al, Molecular Cancer, 2021).
Namal Liyanage MBBS, MS, PhD Associate Professor Department of Microbial Infection and Immunity: College of Medicine (Primary) Department of Veterinary Biosciences: College of Veterinary Medicine namal.liyanage@osumc.edu	• My translational immunology research focuses on the roles of innate immune cells, particularly natural killer (NK) cells, innate lymphoid cells (ILCs), and monocytes, in HIV/SIV pathogenesis, vaccine development, and HIV-associated co-infections and comorbidities, including tuberculosis, gonorrhea, cardiovascular disease, diabetes, and obesity. • Current projects in my laboratory investigate how NK cells and ILCs protect against viral infections, with a special emphasis on their functions at mucosal surfaces. By uncovering how these cells contribute to frontline defense, my team aims to develop innovative strategies to prevent HIV and other chronic infections.

	This work has the potential to inform the design of new vaccines and therapeutic approaches that strengthen natural immunity and improve outcomes for people at risk of viral diseases.
Marsh, Antoinette PhD Professor (Veterinary Parisitology) Marsh.2061@osu.edu Department of Veterinary Preventive Medicine https://vet.osu.edu/people/antoinette-marsh	• Dr. Marsh's laboratory carries out applied veterinary parasitology research for canine hookworms, Parelaphostrongylus tenuis (meningeal worm), and trichostrongyles of ruminants and collaborates with other faculty across the college and university. The student will be involved in all stages of designing, collecting samples, analyzing, interpreting results and presenting/publishing results. Non-laboratory bench top scholarly activities involve legal liabilities of zoonotic parasites and animal law related topics.
Matusicky, Michelle (Missy) DVM, MPH, DACVPM Associate Professor-Clinical Matusicky.1@osu.edu Department of Veterinary Preventive Medicine https://vet.osu.edu/about-us/people/missy-matusicky	• Access to care medicine • Shelter medicine • Small animal population health
Muñoz, Kirk DVM (Hons), MRCVS, MSc, PgCert BA, DACVAA, cVMA Assistant Professor munoz.215@osu.edu Department of Veterinary Clinical Sciences https://vet.osu.edu/people/kirk-munoz	• Use of proteomics to determine the effect of anesthetic drugs on protein expression in horses. • The effect of antinausea medication on equine fecal water syndrome. • Use of pain scales to assess and monitor pain in dogs and cats - in private practice and academia.
Nolting, Jacqueline MS, PhD Assistant Professor Swine Health and Biosecurity Extension Specialist Nolting.4@osu.edu Department of Veterinary Preventive Medicine https://vet.osu.edu/preventive-medicine/vpm-research/animal-influenza-ecology-epidemiology-research-program	• My research and extension program centered around the risk and prevention of infectious diseases has several opportunities for summer student research projects in both biological and social science. • The primary pathogen for biological sciences is influenza A viruses in wild birds and terrestrial disease transmission in animal and/or human populations.
O'Quin, Jeanette DVM, MPH, DACVPM, DABVP	• We are drawing and banking blood from community cats brought in for TNR and

Associate Professor-Clinical Oquin.4@osu.edu Department of Veterinary Preventive Medicine https://vet.osu.edu/people/jeanette-oquin	would like to have a student work at the Ohio Department of Agriculture ADDL to run the diagnostic samples (panleukopenia and toxoplasma titers) and to analyze the data also using metrics we collected on the cats (age, sex, BCS, location, etc.). • Small animal population health and welfare • Public health and zoonotic diseases • Access to veterinary care
Pesapane, Risa PhD Associate Professor Pesapane.1@osu.edu Department of Veterinary Preventive Medicine and School of Environmental and Natural Resources https://vet.osu.edu/about-us/people/risa-pesapane	• The Parasite and Pathogen Ecology Lab at OSU has openings across multiple tick and tick-borne pathogen studies, including risk assessments, epidemiological investigations, and wildlife-targeted interventions. • There may be opportunity for the design of additional student-driven lines of inquiry within these studies.
Petersen, Christine DVM, PhD Professor Petersen.307@osu.edu Department of Veterinary Biosciences https://vet.osu.edu/people/christine-petersen	• The Petersen lab's research focuses on canine leishmaniosis (CanL), a disease caused by the Leishmania parasite, which is spread both by its primary vector, the sandfly, and can be vertically transmitted. This can cause cutaneous and visceral manifestations, which can be fatal in canine patients. Current projects include: • Elucidating the mechanism of anemia and characterizing the relationship between parasitism and anemia using an in-situ hybridization technique called RNAscope on archived, formalin-fixed paraffin-embedded spleen and bone marrow samples from affected canines as well as using molecular techniques, such as ELISAs, on collected serum samples. • Investigating the immunological response to sand fly bite in dogs which do and do not exhibit immunological memory of orthologous arthropod salivary/venom antigens using ELISA, qPCR, and flow cytometry.
Piegols, Hunter	• Broadly, our research focuses on the field

DVM, DACVS-SA Assistant Professor-small animal surgery and integrated oncology Piegols.3@osu.edu Department of Veterinary Clinical Sciences https://vet.osu.edu/people/hunter-piegols	of surgical oncology. • More specifically, areas of interest include surgical margin evaluation and hemangiosarcoma, though other opportunities may be available as well.
Rikihisa, Yasuko PhD Professor Rikihisa.1@osu.edu Department of Veterinary Biosciences https://riki-lb1.org.ohio-state.edu/?_gl=1*cdbmwk*_gcl_au*NjA0MTYwNjI5LjE3Mjc3MDEyODg.*_ga*MjQyOTQyMzc2LjE3MTk4Mzg5NzA.*_ga_09WC99HMPE*MTczMjAzMjgwMy4zMDMuMS4xNzMyMDMyODIwLjQzLjAuMA..	Examples of current research projects include: • 1. Elucidation of Signaling Pathways for Entry and Survival of Ehrlichiae aand Anaplasma in Leukocytes: The objective of this project is to study bacterial molecules that drive safe entry and survival in the host cells by mobilizing actin cytoskeleton, inhibiting reactive oxygen species generation, lysosomal fusion, and leukocyte's activation and apoptosis, and by competitively acquiring cholesterol, iron, other nutrients. • 2. Characterization of Type IV Secretion in Human Ehrlichiosis and Anaplasmosis Agents: The objectives of this project are 1) to identify effectors of type IV secretion system and determine their functions in infection, and developing intracellular nanobodies to block infection. • 3. Roles of Ehrlichia and Anaplasma Outer Membrane Proteins in Parasitism: The objective of this project is to examine biological activities of unique outer membrane proteins for invasion and bacterial physiology (porin, iron transport, immune modulation), and host signal transduction in a cell culture and an animal model of ehrlichiosis. • 4. Isolation and Characterization of New Species and Strains. Ehrlichia, Anaplasma, and Neorickettsial organisms will be isolated from field vertebrate and invertebrate hosts, and molecular diversity and virulence will be analyzed, and mechanisms of transmission will be examined. • 5. Diagnosis and Vaccine Development for Ehrlichia, Anaplasma, and Neorickettsia spp. Our lab. has been developing rapid, sensitive, and specific molecular and serologic diagnostic methods by identifying the unique DNA sequences,

	and highly immunogenic peptides in these bacteria. We are also developing in-tick neutralizing DNA and mRNA vaccines based on ehrlichial molecules essential for tick to mammal transmission.
Selmic, Laura BVETMED, MPH Professor Department of Veterinary Clinical Sciences selmic.1@osu.edu https://vet.osu.edu/people/laura-selmic	• Optical imaging of surgical margins • Translational cancer research
Toribio, Ramiro DVM, PhD Professor Equine Internal Medicine Department of Veterinary Clinical Sciences Toribio.1@osu.edu https://vet.osu.edu/about-us/people/ramiro-toribio	• Research Program: Endocrine regulation in healthy and critically ill foals. • Goals: to enhance our understanding on the endocrinology of healthy and sick equine neonates. Sprecifically, to investigate factors involved in energy regulation (energy hormones), mineral homeostatis (calcium-regulating hormones), and stress (pituitary/adrenal hormones, stress hormones, steroids). Dysregulation of these factors likely contribute to disease severity in sick foals. • Training: students will get familiar with the specifics of the project (physiology, pathophysiology), have the opportunity to travel to horse farms in ohio and equine hospitals in Kentucky, process serum/plasma samples, retrieve medical information, perform endocrine measurements, analyze data, and prepare presentations of the findings. There will be regular weekly meetings. They will gain experience in clinical research, but also acquire knowledge and skills that will be beneficial for incoming courses and the clinic. In addition, students will also be included in a peer-reviewed publication.
Warren, Cody PhD, MPH Assistant Professor Warren.802@osu.edu Department of Veterinary Biosciences https://vet.osu.edu/about-us/people/cody-warren	• The vast majority of newly emerging infectious diseases can be traced back to wild animals. • Of these zoonoses, viruses pose the greatest pandemic threat. • The overall research goal of the Warren lab is to better understand how viruses adapt to infect new host species. • We aim to use knowledge gained through the analysis of virus structure, function, and host interactions to identify

	fundamental biological processes that influence disease emergence.
Wittum, Tom PhD Professor Wittum.1@osu.edu Department of Veterinary Preventive Medicine https://vet.osu.edu/people/thomas-wittum	• My research program focuses on the epidemiology of zoonotic infectious diseases, but most of the current research in my laboratory is related to antimicrobial use, resistance, and stewardship. • My lab supports multiple ongoing projects related to the emergence and dissemination of antibiotic-resistant bacteria in human and animal populations, and in the environment. • We also support research projects related to the ongoing effort to implement a comprehensive antimicrobial stewardship program in the OSU VMC.
Xiong, Gaofeng PhD Assistant Professor Xiong.587@osu.edu Department of Veterinary Biosciences https://vet.osu.edu/about-us/people/gaofeng-xiong	• My research area focuses on discovering important mechanisms and biology underlying breast cancer progression, drug resistance and metastasis, as well as identifying novel strategies to inhibit breast cancer progression by targeting tumor microenvironment cues. • I would like to perform some basic and translational studies in canine mammary tumor.
CHIRP **Winston, Jenessa** DVM, PhD Assistant Professor Winston.210@osu.edu https://vet.osu.edu/about-us/people/jenessa-winston **Rudinsky, Adam** DVM, MS Associate Professor Rudinsky.3@osu.edu **Parker, Valerie** DVM Professor-Clinical Parker.888@osu.edu https://vet.osu.edu/parker-valerie Department of Veterinary Clinical Sciences ********** **Schreeg, Megan**	• The Comparative Hepatobiliary and Intestinal Research Program (CHIRP) is comprised of a team of basic research and clinician scientists at the forefront of cutting-edge research and innovative study design. • CHIRP was developed to streamline multidisciplinary research with a specific focus on team science. • The axis of our program centers on the advancement of knowledge pertaining to gastrointestinal, hepatobiliary, and pancreatic diseases in dogs and cats coupled with dedicated enhancement of animal and human health through translational scientific discoveries. • We are looking for highly motivated veterinary students interested in a summer research experience.

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