

## 2024 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
<p><b>Bracha, Shay</b>            DVM, MS, DACVIM (oncology)            Associate Professor, Medical Oncology  <a href="mailto:Bracha.2@osu.edu">Bracha.2@osu.edu</a>            Department of Veterinary Clinical Sciences</p>	<ul style="list-style-type: none"> <li>• Dr. Shay Bracha’s laboratory carries out comparative cancer research through the study of genes and proteins for disease detection and novel therapies.</li> <li>• 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.</li> <li>• These exosomes can carry biomarkers that predict disease stage, drug resistance, and prognosis as well as shape the microenvironment within the tumor itself.</li> <li>• Dr. Bracha studies ways to decode these exosomes to identify new treatment targets for animals with osteosarcoma (bone cancer) and other types of tumors.</li> </ul>
<p><b>Burns, Teresa</b>            DVM, PhD, DACVIM            Associate Professor, Equine Internal Medicine  <a href="mailto:Burns.402@osu.edu">Burns.402@osu.edu</a>            Department of Veterinary Clinical Sciences</p> <p><a href="https://vet.osu.edu/burns-teresa">https://vet.osu.edu/burns-teresa</a></p>	<ul style="list-style-type: none"> <li>• Laminitis</li> <li>• Endocrine diseases of horses</li> </ul>
<p><b>Coutinho da Silva, Marco</b>            DVM, PhD            Professor-Clinical            Theriogenology and Reproductive Medicine            Section Head  <a href="mailto:Coutinho-da-silva.1@osu.edu">Coutinho-da-silva.1@osu.edu</a></p> <p>Department of Veterinary Clinical Sciences  <a href="https://vet.osu.edu/coutinho-da-silva-marco">https://vet.osu.edu/coutinho-da-silva-marco</a></p>	<ul style="list-style-type: none"> <li>• This is a clinical study that will provide the student with hands-on opportunity to collect samples from the animals and perform laboratory assays of these samples.</li> <li>• The student will be involved in all stages of designing, collecting samples, analyzing, interpreting results and presenting/publishing a study looking at the efficacy of different methods to evaluate sperm morphology in dogs and/or horses.</li> <li>• The student will also have the opportunity to participate in other ongoing projects</li> </ul>

	<p>and shadow the Theriogenology Service at the VMC, as time allows.</p>
<p><b>Flint, Jaylene</b>  PhD  Assistant Professor  <a href="mailto:Flint.72@osu.edu">Flint.72@osu.edu</a>  <a href="https://vet.osu.edu/about-us/people/jaylene-flint">https://vet.osu.edu/about-us/people/jaylene-flint</a></p> <p><b>Flint, Mark</b>  BVSc, PhD  Associate Professor  Program Head of Zoo &amp; Wildlife Conservative Medicine and Ecosystem Health  <a href="mailto:Flint.71@osu.edu">Flint.71@osu.edu</a>  <a href="https://vet.osu.edu/about-us/people/mark-flint">https://vet.osu.edu/about-us/people/mark-flint</a></p> <p>Department of Veterinary Preventive Medicine</p>	<ul style="list-style-type: none"> <li>• Several projects involving Ecosystem Health/One Welfare at various locations throughout Ohio as well as some potential desktop studies</li> </ul>
<p><b>Garabed, Rebecca</b>  VMD, MPVM, PhD  Associate Professor  Department of Veterinary Preventive Medicine  <a href="mailto:Garabed.1@osu.edu">Garabed.1@osu.edu</a>  <a href="https://vet.osu.edu/garabed-rebecca">https://vet.osu.edu/garabed-rebecca</a></p>	<ul style="list-style-type: none"> <li>• General: access to veterinary care and infectious disease epidemiology projects</li> <li>• Specific projects you can join: veterinary needs assessment for a remote community in New Mexico; analysis of veterinary medical records at OSU VMC; one health research in Chad (must speak French or Arabic-dosen't have to be perfect fluency)</li> </ul>
<p><b>Habing, Greg</b>  DVM, PhD  Associate Professor  Department of Veterinary Preventive Medicine  <a href="mailto:Habing.4@osu.edu">Habing.4@osu.edu</a>  <a href="http://vet.osu.edu/habing-greg">http://vet.osu.edu/habing-greg</a></p>	<ul style="list-style-type: none"> <li>• The overall goal of our research program is to improve antimicrobial stewardship on dairy farms and understand the epidemiology and transmission of zoonotic foodborne diseases, within livestock production systems.</li> <li>• Summer research students will work to implement antimicrobial stewardship interventions on dairy farms, measure antimicrobial use within dairy and calf production system, or identify transmission patterns of zoonotic bacteria.</li> <li>• Project activities typically include a combination of field and laboratory work, depending on the interests and goals of</li> </ul>

	the student.
<p><b>Hale, Vanessa</b>  MAT, DVM, PhD  Assistant Professor  <a href="mailto:Hale.502@osu.edu">Hale.502@osu.edu</a></p> <p><a href="#">Hale Lab Website</a></p> <p>Department of Veterinary Preventive Medicine</p>	<ul style="list-style-type: none"> <li>• Environmental chemical exposures can increase the risk of developing cancer in dogs and in humans.</li> <li>• But how might the microbes living in or on us (our microbiome) metabolize these chemicals?</li> <li>• Could microbes increase or decrease risks associated with chemical exposures?</li> <li>• 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.</li> </ul>
<p><b>Herron, Meghan</b>  DVM  Sr. Director Behavioral Medicine, Education and Outreach  Gigi's  <a href="mailto:mherron@gigis.org">mherron@gigis.org</a>  614-356-8081 ext. 313</p> <p>This project will be in collaboration with Dr. Winston at OSU CVM</p>	<ul style="list-style-type: none"> <li>• 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 organizations across the state of Ohio can be treated for this deadly disease at a low-cost.</li> <li>• 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.</li> <li>• 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.</li> <li>• Summer research opportunities are</li> </ul>

	<p>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.</p>
<p><b>Jennings, Ryan</b>  DVM, PhD  Associate Professor-Clinical  Anatomic Pathology Training Program Coordinator  <a href="mailto:Jennings.398@osu.edu">Jennings.398@osu.edu</a>  Department of Veterinary Biosciences  <a href="https://vet.osu.edu/about-us/people/ryan-jennings">https://vet.osu.edu/about-us/people/ryan-jennings</a></p>	<ul style="list-style-type: none"> <li>utilizing digital image analysis in evaluating prognostic factors in mast cell disease and dermatological diseases</li> </ul>
<p><b>Karniychuk, Vladi</b>  DVM, PhD  Assistant Professor  <a href="mailto:Karniychuk.1@osu.edu">Karniychuk.1@osu.edu</a>  Department of Veterinary Biosciences    <a href="https://vet.osu.edu/about-us/people/vladi-karniychuk">https://vet.osu.edu/about-us/people/vladi-karniychuk</a></p>	<ul style="list-style-type: none"> <li>Zinc-finger antiviral protein (ZAP) activity against ZAP-sensitive and “ZAP-resistant” flaviviruses</li> <li>Flaviviruses—Japanese encephalitis virus (JEV), Zika virus (ZIKV), dengue virus (DENV), yellow fever virus (YFV), and West Nile virus (WNV)— are a constant threat to the public health. There are no licensed antivirals against flaviviruses because of a knowledge gap in cellular pathways controlling infections, including the knowledge gap in interactions of viral RNA with cellular proteins. Zinc finger antiviral protein (ZAP) is one of the most potent cellular proteins with broad antiviral activity. Zinc finger antiviral protein binds to RNA genomes of different viruses and mediates viral RNA degradation and translational inhibition. Zinc finger antiviral protein interactions with flaviviruses are not well studied, which is a missed opportunity to discover druggable targets. For the first time, we will comprehensively identify how endogenous ZAP affects ZIKV, DENV, YFV, and WNV in vitro and in vivo.</li> </ul>
<p><b>Li, Haichang</b>  DVM, PhD  Assistant Professor  Department of Veterinary Biosciences  454 VMAB  <a href="mailto:li.3714@osu.edu">li.3714@osu.edu</a>  <a href="mailto:Haichang.li@osumc.edu">Haichang.li@osumc.edu</a></p>	<ul style="list-style-type: none"> <li>My current research focuses on cancer research and regenerative medicine.</li> <li>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</li> </ul>

<p><a href="https://vet.osu.edu/about-us/people/haichang-li">https://vet.osu.edu/about-us/people/haichang-li</a></p>	<p>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.</p> <ul style="list-style-type: none"> <li>• 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).</li> </ul>
<p><b>Matusicky, Michelle (Missy)</b> DVM, MPH, DACVPM Associate Professor-Clinical <a href="mailto:Matusicky.1@osu.edu">Matusicky.1@osu.edu</a> Department of Veterinary Preventive Medicine <a href="https://vet.osu.edu/about-us/people/missy-matusicky">https://vet.osu.edu/about-us/people/missy-matusicky</a></p>	<ul style="list-style-type: none"> <li>• Access to care medicine</li> <li>• Shelter medicine</li> <li>• Small animal population health</li> </ul>
<p><b>Niewiesk, Stefan</b> DVM, PhD Professor Department of Veterinary Biosciences <a href="mailto:Niewiesk.1@osu.edu">Niewiesk.1@osu.edu</a> 466 VMAB <a href="https://vet.osu.edu/niewiesk-stefan">https://vet.osu.edu/niewiesk-stefan</a></p>	<ul style="list-style-type: none"> <li>• We are investigating how old age leads to higher susceptibility against respiratory syncytial virus in cotton rats.</li> <li>• The project would investigate metabolic disorder (insulin, glucose, triglycerides) in aging cotton rats and its effect on antiviral immunity.</li> </ul>
<p><b>Nolting, Jacqueline</b> MS, PhD Assistant Professor Swine Health and Biosecurity Extension Specialist <a href="mailto:Nolting.4@osu.edu">Nolting.4@osu.edu</a> Department of Veterinary Preventive Medicine <a href="https://vet.osu.edu/preventive-medicine/vpm-research/animal-influenza-ecology-epidemiology-research-program">https://vet.osu.edu/preventive-medicine/vpm-research/animal-influenza-ecology-epidemiology-research-program</a></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The primary pathogen for biological sciences is influenza A viruses in wild birds and terrestrial disease transmission in animal and/or human populations.</li> </ul>
<p><b>Pesapane, Risa</b> PhD Assistant Professor <a href="mailto:Pesapane.1@osu.edu">Pesapane.1@osu.edu</a> Department of Veterinary Preventive Medicine and School of Environmental and Natural Resources <a href="https://vet.osu.edu/about-us/people/risa-pesapane">https://vet.osu.edu/about-us/people/risa-pesapane</a></p>	<ul style="list-style-type: none"> <li>• The Parasite and Pathogen Ecology Lab at OSU has partnered with The Wilds to conduct tick and tick-borne pathogen surveillance on animals, humans, and vegetation on their property.</li> <li>• The goal of this project is to understand the risk of tick-borne disease to animals in the collection, as well as staff and visitors.</li> <li>• Over the past year, ticks have been collected from a variety of zoo and domestic animal species, from different habitats, as well as from employees and visitors.</li> </ul>

	<ul style="list-style-type: none"> <li>• At minimum, we seek a summer research student to identify these ticks to species, perform testing for pathogens of veterinary and medical concern, and summarize any trends in infestation by species or location.</li> <li>• There may be opportunity for the design of additional student-driven lines of inquiry within this study and for prospective collection of ticks from The Wilds.</li> </ul>
<p><b>Piegols, Hunter</b>  DVM, DACVS-SA  Assistant Professor-small animal surgery and integrated oncology  <a href="mailto:Piegols.3@osu.edu">Piegols.3@osu.edu</a>  Department of Veterinary Clinical Sciences</p>	<ul style="list-style-type: none"> <li>• Broadly, our research focuses on the field of surgical oncology.</li> <li>• More specifically, areas of interest include surgical margin evaluation and hemangiosarcoma, though other opportunities may be available as well.</li> </ul>
<p><b>Toribio, Ramiro</b>  DVM, PhD  Professor  Equine Internal Medicine  Department of Veterinary Clinical Sciences  <a href="mailto:Toribio.1@osu.edu">Toribio.1@osu.edu</a>  <a href="https://vet.osu.edu/about-us/people/ramiro-toribio">https://vet.osu.edu/about-us/people/ramiro-toribio</a></p>	<ul style="list-style-type: none"> <li>• Research Program: Endocrine regulation in healthy and critically ill foals.</li> <li>• Goals: to enhance our understanding on the endocrinology of healthy and sick equine neonates. Specifically, to investigate factors involved in energy regulation (energy hormones), mineral homeostasis (calcium-regulating hormones), and stress (pituitary/adrenal hormones, stress hormones, steroids). Dysregulation of these factors likely contribute to disease severity in sick foals.</li> <li>• 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.</li> </ul>
<p><b>Warren, Cody</b>  PhD, MPH</p>	<ul style="list-style-type: none"> <li>• The vast majority of newly emerging infectious diseases can be traced back to</li> </ul>

<p>Assistant Professor  <a href="mailto:Warren.802@osu.edu">Warren.802@osu.edu</a>  Department of Veterinary Biosciences  <a href="https://vet.osu.edu/about-us/people/cody-warren">https://vet.osu.edu/about-us/people/cody-warren</a></p>	<p>wild animals.</p> <ul style="list-style-type: none"> <li>• Of these zoonoses, viruses pose the greatest pandemic threat.</li> <li>• The overall research goal of the Warren lab is to better understand how viruses adapt to infect new host species.</li> <li>• 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.</li> </ul>
<p><b>Xiong, Gaofeng</b>  PhD  Assistant Professor  <a href="mailto:Xiong.587@osu.edu">Xiong.587@osu.edu</a>  Department of Veterinary Biosciences  <a href="https://vet.osu.edu/about-us/people/gaofeng-xiong">https://vet.osu.edu/about-us/people/gaofeng-xiong</a></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• I would like to perform some basic and translational studies in canine mammary tumor.</li> </ul>
<p><b>CHIRP</b>  <b>Winston, Jenessa</b>  DVM, PhD  Assistant Professor  <a href="mailto:Winston.210@osu.edu">Winston.210@osu.edu</a>  <a href="https://vet.osu.edu/about-us/people/jenessa-winston">https://vet.osu.edu/about-us/people/jenessa-winston</a></p> <p><b>Rudinsky, Adam</b>  DVM, MS  Associate Professor  <a href="mailto:Rudinsky.3@osu.edu">Rudinsky.3@osu.edu</a></p> <p><b>Parker, Valerie</b>  DVM  Professor-Clinical  <a href="mailto:Parker.888@osu.edu">Parker.888@osu.edu</a>  <a href="https://vet.osu.edu/parker-valerie">https://vet.osu.edu/parker-valerie</a></p> <p>Department of Veterinary Clinical Sciences  *****</p> <p><b>Schreeg, Megan</b>  DVM, PhD  Assistant Professor-Clinical  <a href="mailto:Schreeg.1@osu.edu">Schreeg.1@osu.edu</a>  <a href="https://vet.osu.edu/about-us/people/megan-">https://vet.osu.edu/about-us/people/megan-</a></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• CHIRP was developed to streamline multidisciplinary research with a specific focus on team science.</li> <li>• 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.</li> <li>• We are looking for highly motivated veterinary students interested in a summer research experience.</li> <li>• IF students have a specific <b>pathology interest</b>, we request you contact <b>Dr. Schreeg</b>, directly.</li> </ul>

[schreeg](#)

Department of Veterinary Biosciences