MSU-CVM SRE Potential Mentors

The following faculty have served as mentors for the SRE program over the past few years. Applicants are encouraged to contact those in whom they are interested to find out the mentor’s availability and potential projects.

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| **Mentor** | **Department** | **Research Area** | **E-mail** |
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| **Hossam Abdelhamed**  **BVMS, MS, PhD** | MSU-CVM Comparative Biomedical Sciences | Bacterial pathogenesis, aquatic animal health, molecular microbiology, antimicrobial resistance | abdelhamed@cvm.msstate.edu |
| **Todd Archer MS, DVM** | MSU-CVM  Clinical Sciences | Small animal internal medicine; pharmacodynamic monitoring of T cells in response to immunosuppressive drugs | tarcher@cvm.msstate.edu |
| **Christa Barrett, DVM, CertAqV** | MSU-CVM Pathobiology and Population Medicine  (Institute for Marine Mammal Studies) | Population and preventative medicine of marine animals | ceb954@msstate.edu |
| **Cooper Brookshire MS, DVM** | MSU-CVM  Clinical Sciences | Shelter medicine; wildlife/ecology; antimicrobial resistance | c.brookshire@msstate.edu |
| **Russell Carr, MS, PhD** | MSU-CVM Comparative Biomedical Sciences | Toxicology/behavior and cognitive function; effects of agricultural chemicals and endocrine disrupting chemicals on the developing nervous system with emphasis on effects on behavior and cognitive function and on appropriate neurotransmitter system development | rlcarr@cvm.msstate.edu |
| **Jan Chambers, PhD** | MSU-CVM Comparative Biomedical Sciences | Biochemical and environmental toxicology; mechanism of action and biotransformation of neurotoxicants; neurochemical effects of anticholinesterase toxicants; metabolism of insecticides and other xenobiotics; development of antidotes to organophosphate toxicants | chambers@cvm.msstate.edu |
| **Jean M.N. Feugang, MS, PhD** | MSU Animal and Dairy Sciences | Large animal reproduction; biology of mammalian gametes and embryos; post-collection semen manipulation; non-invasive luminescence and fluorescence bioimaging; nanotechnology in animal production, reproduction and disease prevention | jn181@msstate.edu |
| **Nick Fitzkee, PhD** | MSU  Chemistry | Protein structure and function; Specific projects include (1) determining protein-nanoparticle surface interactions as a model for bacterial biofilm formation, and (2) exploring elastin-like polypeptides (ELPs) as a drug delivery system | nfitzkee@chemistry.msstate.edu |
| **Pat Gaunt, DVM PhD** | MSU-CVM Pathobiology and Population Medicine | Aquatic pharmacology and toxicology; antimicrobial susceptibility | gaunt@cvm.msstate.edu |
| **Jesse Grady, MS, DVM** | MSU-CVM Clinical Sciences | Exploring the communication factors that affect how pet owners make decisions regarding their pet; use of surveys | jgrady@cvm.msstate.edu |
| **Matt Griffin, PhD** | MSU-CVM  Pathobiology and Population Medicine | Aquatic animal health; parasitology, microbiology, molecular diagnostics, metagenomics, environmental pathogen detection and risk assessment, bacterial genomics, vaccine development | matt.griffin@msstate.edu |
| **Larry Hanson, PhD** | MSU-CVM  Comparative Biomedical Sciences | Molecular virology and the application of molecular biology to investigate fish health problems associated with aquaculture | hanson@cvm.msstate.edu |
| **Trey Howell, PhD** | MSU-CVM  Comparative Biomedical Sciences | Environmental toxicology; role of organochlorine bioaccumulation in development of type 2 diabetes; effects of environmental exposures on diabetic wound healing; cardiovascular toxicology | howell@cvm.msstate.edu |
| **Michael Jaffe,**  **DVM, DVM, MS, CCRP** | MSU-CVM Clinical Sciences | Osteoporosis study in an alcohol-induced model in mice. Work will involve working with Raman spectroscopy and biomechanical evaluation of osteoporotic bones. | mhj95@msstate.edu |
| **Barbara Kaplan, PhD** | MSU-CVM  Comparative Biomedical Sciences | Mechanisms of immunotoxicology;  immune responsiveness in the nervous system and neuroimmune interactions using an autoimmune model of multiple sclerosis; mechanisms of immune response to environmental contaminants | bkaplan@cvm.msstate.edu |
| **Attila Karsi, MS, PhD** | MSU-CVM  Comparative Biomedical Sciences | Fish-pathogen interactions; bacterial fish diseases; vaccine development; bacterial pathogenesis; functional genomics | karsi@cvm.msstate.edu |
| **Jonas King, PhD** | MSU Biochemistry, Molecular Biology, Entomology and Plant Pathology | Host-pathogen interactions and arthropod disease vectors, primarily related to malaria (*Plasmodium*) parasites and mosquito vectors; development of novel molecular diagnostics for plant and animal diseases | jonas.king@msstate.edu |
| **Mark Lawrence, DVM, PhD** | MSU-CVM  Comparative Biomedical Sciences | Bacterial pathogenesis; food safety;  comparative genomics, functional genomics, molecular biology, and host models to study pathogenesis of fish bacterial pathogens (e.g. *Edwardsiella ictaluri, Aeromonas hydrophila, Flavobacterium columnare)*,as well as the food pathogen, *Listeria monocytogenes* | lawrence@cvm.msstate.edu |
| **Todd Mlsna, PhD** | MSU Chemistry | microplastics and emerging pollutants of concern in marine animals | tmlsna@chemistry.msstate.edu |
| **Debra Moore, DVM** | MSU-CVM Pathobiology and Population Medicine (Institute for Marine Mammal Studies) | health care, necropsies, surgeries, and diagnostics for marine animals including dolphins, pygmy killer whales, sea lions, sea turtles, and avian species | dpm232@msstate.edu |
| **Bindu Nanduri, MS, PhD** | MSU-CVM Comparative Biomedical Sciences | Bacterial pathogenesis and genomics; role of polyamines and iron responsive genes in pneumococcal (*Streptococcus pneumoniae)* pathogenesis and virulence; development of computational resources for host-pathogen interactions for agricultural species | bnanduri@cvm.msstate.edu |
| **Claudio Natalini  DVM, MS, Ph.D. DACVAA** | MSU-CVM  Clinical Sciences | Production and pharmacological effects of emulsified injectable halogenated anesthetics | cc3750@msstate.edu |
| **Joo Youn Park, MS, DVM, PhD** | MSU-CVM Comparative Biomedical Sciences | *Staphylococcus aureus* (*S. aureus*) utilization and exploitation of host nutrient resources to regulate bacterial networks that impact metabolism and virulence during pathogenesis, especially in type 2 diabetes (T2D) | jpark@cvm.msstate.edu |
| **Andy Perkins** | MSU Computer Science and Engineering | Computational biology; graph theory; high performance computing | perkins@cse.msstate.edu |
| **Lora Petrie-Hanson, MS, PhD** | MSU-CVM  Comparative Biomedical Sciences | Fish immunology; innate immunity in catfish | lora@cvm.sstate.edu |
| **Lauren Priddy, PhD** | MSU Ag and Biomedical Engineering | Biomaterials for the delivery of antimicrobial therapeutics such as bacteriophage to combat osteomyelitis; *in vitro* and *in vivo* models; explore how biomaterial properties can encourage osseointegration and mitigate infection, and to use biomaterials to effectively co-deliver antimicrobial and osteoinductive factors for treating challenging cases of osteomyelitis | lbpriddy@abe.msstate.edu |
| **Stephen Pruett, PhD** | MSU-CVM  Comparative Biomedical Sciences | Mechanisms of immunomodulation by drugs and chemicals with particular emphasis on the role of neuroendocrine mediators; mathematical/statistical modeling of immune function | pruett@cvm.msstate.edu |
| **Stephen Reichley, DVM, PhD** | MSU-CVM Pathobiology and Population Medicine | Aquatic animal health | Stephen.reichley@msstate.edu |
| **Matt Ross, PhD** | MSU-CVM  Comparative Biomedical Sciences | Biochemistry; role of carboxylesterases in xenobiotic and lipid metabolism, and in relation to inflammation and disease (specifically atherosclerosis) progression; characterization of serine hydrolases involved degradation of lipids, especially endocannabinoids | mross@cvm.msstate.edu |
| **T. Graham Rosser, PhD** | MSU-CVM  Comparative Biomedical Sciences | Characterization of parasites of farmed fish and selected wildlife specific using molecular and classical parasitology techniques; specific interests in fish myxozoan and trematode parasites | graham.rosser@msstate.edu |
| **Keun Seok Seo, DVM, PhD** | MSU-CVM  Comparative Biomedical Sciences | Bacteriology and host response; specific interests in *Staphylococcus aureus* superantigens | seo@cvm.msstate.edu |
| **David Smith, DVM, PhD** | MSU-CVM  Pathobiology & Population Medicine | Epidemiology;  Use of field epidemiology to discover how beef cattle production-systems can be modified to improve the health, well-being, and productivity of cattle, and benefit human and environmental health | Dsmith@cvm.msstate.edu |
| **Justin Stilwell, DVM, PhD, DACVP** | MSU-CVM  Pathobiology & Population Medicine | Pathology and pathogenesis of infectious diseases and neoplasia in non-domestic species with emphasis on aquatic animals | justin.stilwell@msstate.edu |
| **Natalie Stilwell, DVM, MS, PhD** | MSU-CVM  Pathobiology & Population Medicine | Emerging diseases of wildlife and aquatic animals; microbiology; molecular diagnostic techniques | natalie.stilwell@msstate.edu |
| **Betsy Swanson, MS, DVM** | MSU-CVM  Clinical Sciences | Soft tissue surgery; wound care; minimally invasive surgery; chronic biofilm infections | eswanson@cvm.msstate.edu |
| **Cyprianna Swiderski, DVM, PhD** | MSU-CVM  Clinical Sciences | Equine internal medicine; respiratory disease; severe equine asthma (pasture-induced); equine genomics | cs280@msstate.edu |
| **John Thomason, DVM, MS, DACVIM (SAIM)** | MSU-CVM Clinical Sciences | Hematology, Transfusion medicine, platelet function, coagulation, and immunosuppressive therapy | thomason@cvm.msstate.edu |
| **Justin Thornton, PhD** | MSU Biological Sciences | *Streptococcus pneumoniae*(pneumococcus); host-pathogen interactions of the innate immune response functions to prevent these types of infections and virulence mechanisms of *S. pneumoniae* enable disease | thornton@biology.msstate.edu |
| **Andrea Varela-Stokes, DVM, PhD** | MSU-CVM  Comparative Biomedical Sciences | Parasitology; vector-borne disease;  tick-*Rickettsia-*vertebrate host interactions; wildlife parasitology and other tick-borne pathogen systems | stokes@cvm.msstate.edu |
| **Chinling Wang, MS, DVM, PhD** | MSU-CVM  Comparative Biomedical Sciences | Microbiology specifically related to food-borne pathogens, gut health in chickens, necrotic enteritis in chickens, probiotics, and bacterial pathogenesis | wang@cvm.msstate.edu |
| **Kimberly Woodruff, MS, DVM** | MSU-CVM Clinical Sciences | Shelter medicine; epidemiology; disease control in shelter populations | kwoodruff@cvm.msstate.edu |
| **Amelia Woolums, DVM, PhD** | MSU-CVM Pathobiology and Population Medicine | Respiratory disease of cattle and calves; immunity and vaccinology in cattle and calves; infectious diseases of large animals | amelia.woolums@msstate.edu |