

UNDERGRADUATE STUDENT SUMMER RESEARCH - 2019
Faculty List and Area of Research

RESEARCHER	DEPT.	AREA OF RESEARCH
Dr. Diego Moya	LACS	Beef cattle welfare and behavior - Characterization of visual cues and animal behaviors linked to the health status of beef cattle to optimize the identification and treatment of sick animals.
Dr. Claire Card	LACS	Equine reproduction and nutrition
Dr. Cheryl Waldner	LACS	Cow-calf productivity, Johne's disease, antimicrobial resistance/use, AMU in feedlots
Dr. Dinesh Dadarwal	LACS	Non-antibiotic immuno-stimulation of the uterine immune response in postpartum cattle
Dr. Joe Bracamonte	LACS	Evaluation of serum amyloid A (SAA) as a potential biomarker to assess treatment response in horses with septic arthritis
Dr. Julia Montgomery	LACS	Equine, clinically applied
Dr. Christopher Luby	LACS	Understanding the factors that influence decision-making for livestock producers and veterinarians is important in implementing change on livestock operations. A major gap in understanding is a lack of knowledge of how big data affects decision-making. We will be working in collaboration with Dr. Dorte Dopfer at the University of Wisconsin. Using software and appropriate programming code (r and python) that can analyse publically available data, we will identify messages that producers and veterinarians are exposed to on-line and determine how these can impact decision-making by these groups.
Dr. Fabienne Uehlinger	LACS	1) Ruminant (cattle/small ruminants) parasitology (clinically applied); 2) Salivary ELISA development for diagnosis of cattle parasite infection (lab based)
SACS		
Dr. Kevin Cosford	SACS	Feline lower urinary tract disease
Dr. Monique Mayer Dr. Sally Sukut	SACS	Medical Imaging, in areas of Oncology and Ophthalmology Medical Imaging, in areas of Oncology and Ophthalmology This project will involve identification and contouring of the optic nerves and optic chiasm on canine MR images (using Eclipse software), and using that information to identify landmarks for the location of these structures on CT. This information will be developed by the student into an online training module to improve the contouring accuracy by oncologists. The project will also involve recruiting a group of oncologists who will contour the optic nerves and optic chiasm using a cloud-based software (ProKnow), to see if the training module improves group accuracy and also decreases contouring variability between oncologists using only CT. No previous experience is needed, however a strong interest in imaging anatomy and in imaging software will help the student get the most out of this position. The student will learn canine head anatomy on MR and CT, learn to use a contouring software (Eclipse) and the cloud-based software (ProKnow), and have the opportunity to be a co-author on the manuscript that will arise from this work.
Dr. Lynne Sandmeyer	SACS	Ophthalmology - Equine Recurrent Uveitis
Dr. Behzad Toosi	SACS	Cancer research focused on companion animal malignancies
Dr. Romany Pinto Dr. Danielle Zweste	SACS	Using a pressure sensitive walkway to describe gait parameters in healthy Dachshunds and in dogs with ataxia

Dr. Shannon Beazley	SACS	1) Electrical Impedance Tomography - The effect of insufflation pressure during abdominal laparoscopy in horses on lung ventilation 2) Capnography in Rabbits - Comparing the accuracy of three capnograms with different technologies in estimating arterial carbon dioxide in animals less than 4 kg 3) Gastroesophageal regurgitation in dogs - Retrospective analysis of risk factors and anesthetic protocols associated with a higher incidence of GERD in dogs 4) Loose cuff hypertension - Effect of cuff looseness on the accuracy of blood pressure measurement in dogs
Dr. Barbara Ambros	SACS	Is preoxygenation beneficial in birds?
VBMS		
Dr. Ali Honaramooz	VBMS	Reproductive and stem cell research
Dr. Jaswant Singh	VBMS	Bovine follicle dynamics and oocyte competence
Dr. Daniel MacPhee	VBMS	Reproductive Sciences
Dr. Adelaine Leung	VBMS	1) Regulation of energy balance 2) Neural circuits that control innate behaviors in flies
Dr. Gregg Adams	VBMS	Reproductive Science
Dr. Lynn Weber	VBMS	Small animal nutrition, obesity, cardiovascular health
Dr. David Janz	VBMS	Wildlife conservation physiology, aquatic ecotoxicology
Dr. Alan Chicoine	VBMS	Various aspects of research in veterinary drug assessment - incl. drug delivery mechanisms, pharmacokinetic assessment, drug safety and efficacy (pre-clinical or clinical trials), drug residues in food animals, etc.
Dr. Micheal Wu	VBMS	How do heavy metals (e.g. cadmium, arsenic, and lead) that contaminate our environment lead to aging and diseases in animals and are there any ways that animals can defend themselves at the cellular level?
Dr. Dylan Olver	VBMS	Exercise, neuocognitive/brain & cerebrovascular health in swine
VET MICRO		
Dr. Tony Ruzzini	VetMicro	Antibiotics and alternatives
Dr. Emily Jenkins	VetMicro	Wildlife disease, parasitology, public health
Dr. Janet Hill	VetMicro	Infectious disease microbiology and microbiome research
Dr. Vikram Misra	VetMicro	Bats and their viruses
Dr. Kristen Conn	VetMicro	Alphaherpesviruses: regulation of viral gene transcription
VET PATH		
Dr. Nicole Fernandez Dr. Enrique Aburto	VetPath	Canine soft tissue sarcomas
Dr. Elemir Simko	VetPath	Honey bee Diseases - Project will be adopted to the interest of students. Can accommodate up to three summer students to be a part of a vibrant research team composed of 2 PhD students, 1 MSc and 1 Postdoc

<p>Dr. Chelsea Himsworth</p>	<p>Canadian Cooperative Wildlife Health Centre</p>	<p>The Canadian Wildlife Health Cooperative (CWHC) is Canada’s national wildlife health surveillance network. Its goal is to develop and use knowledge of wildlife health and disease to improve the health of domestic animals, people, and the environment. British Columbia joined the CWHC in 2012 and the Plant and Animal Health Branch (PAHB), BC Ministry of Agriculture, was designated as the official headquarters of the CWHC in BC (CWHC-BC). The current focus of the CWHC BC is to translate knowledge into action. The summer student will be involved in one or more of the following projects:</p> <ol style="list-style-type: none"> 1) Developing a framework for communication, resource-sharing, and cooperative decision making among provincial and federal governmental decision makers/stakeholders with regard to wildlife health (i.e., the BC Ministry of Agriculture, the Ministry of Forests, Lands, and Natural Resource Operations, the federal Department of Fisheries and Oceans, and the Canadian Food Inspection Agency). 2) Identifying and evaluate different tools and techniques for avian influenza virus surveillance, and determine how data can be translated into signals that enable a diverse group of provincial and national stakeholders to more effectively assess, monitor, and mitigate risk. 3) Determining whether the principle of harm reduction can be used to inform surveillance, action, and associated decision making in the context of salmon and ocean health. 4) Developing a strategy whereby CWHC-BC-generated wildlife health information can be used to aid in climate change planning and preparedness.
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