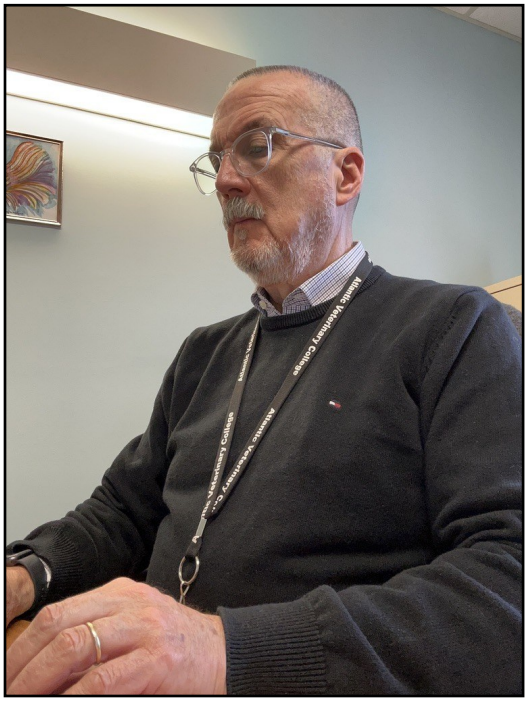
Pathology & Microbiology Newsletter
Atlantic Veterinary College
University of Prince Edward Island
Issue 72 June, 2025

'Honouring Dr. Juan Carlos Rodríguez-Lecompte: A Legacy of Excellence in Veterinary Immunology



Since joining the Atlantic Veterinary College (AVC) in 2012, **Dr. Juan Carlos Rodríguez-Lecompte** has exemplified academic excellence, scientific integrity, and passionate commitment to veterinary immunology and poultry disease research. His distinguished career is marked by a deep dedication to advancing knowledge, mentoring future scientists, and contributing globally through impactful research.

Dr. Rodríguez-Lecompte began his academic journey in Colombia, earning degrees in Veterinary Medicine and Animal Sciences at the University of Caldas and a master's in immunology at Javeriana University. He completed his Ph.D. in Immunovirology at AVC, UPEI. He went on to postdoctoral research at McMaster University in Cancer and Immunotherapy, contributing to tumour vaccine development in both animal and human medicine.

His academic appointments have included key roles at McMaster and the University of Manitoba, where he led the Poultry Research Unit and established himself as a mucosal and nutritional immunology leader. At AVC, his research has focused on immune regulation at mucosal surfaces, notably characterizing the interaction between intestinal microbiota and intestinal epithelial cells and the production of antimicrobial peptide Ang4, which is critical in addressing necrotic enteritis in poultry.

An internationally respected scholar, Dr. Rodríguez-Lecompte has published over 85 peer-reviewed articles, delivered more than 100 conference presentations, and has been invited to 120 scientific meetings across the Americas and beyond. His current work emphasizes nutritional strategies to strengthen early immune development in animals.

A devoted mentor and educator, he has guided numerous graduate and postdoctoral students, earning constant recognition as an outstanding professor. He has also served as a visiting scholar, editor, reviewer, and industry consultant throughout the Americas. His contributions have earned accolades such as the UPEI Faculty Association Merit Award and the prestigious Pfizer Award for Research Excellence at AVC.

As he transitions into retirement, we honour Dr. Rodríguez-Lecompte for his exceptional scholarship and the values he consistently upheld: ethical leadership, intellectual generosity, and a profound commitment to improving animal and human health. His legacy will continue to inspire across disciplines and borders.

“With deep respect and gratitude, we wish him the very best in this next chapter."

2025 Zoetis Carl J. Norden Distinguished Teacher Award Recipient

Congratulations to **Dr. Lisane Ayalew** on receiving the 2025 Zoetis Carl J. Norden Distinguished Teacher Award on May 13th, 2025 at the AVC Graduation Awards Ceremony.

Also,Congratulations to **Dr. Lisane Ayalew** on receiving a grant from Biovectra-Mitacs for the amount of $90,000. His project was entitled, “Effect of natural polymorphism of Sigma C gene of avian reovirus on protein function and virus host cell interactions.”

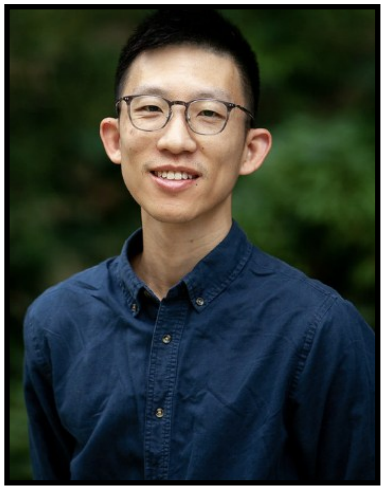
Sherri Pineau Appointed Chair’s Secretary in Pathology and Microbiology

Pathology and Microbiology welcome’s **Sherri Pineau** who is the new administrative assistant to the chair, **Dr.Chelsea Martin**. Sherri is replacing Karen Roche who retired in March of this year.

Sherri has worked for the past 17 years in various positions at the college. Sherri is moving from the Associate Dean, Grad Studies and Research (50%) and the Sir James Dunn Animal Welfare Centre (50%), where she has worked for the last five years as an administrative assistant. Prior to that she worked for 12 years as the Animal Care Committee administrative assistant in Biomedical Sciences. In her free time Sherri loves to bake and garden. She also enjoys to travel with her husband, Lane.

We wish Sherri all the best in her new role!

On the Way to ACVP Certification



The Pathology and Microbiology Department is pleased to announce that **Dr. Matthew Yeung** has passed Phase I of the rigorous American College of Veterinary Pathologists Certifying Examination. Dr. Yeung will soon enter the final year of his combined Master of Veterinary Science and residency in clinical pathology and continues preparing for Phase II of the examination. Dr. Yeung is supervised by **Drs. Cornelia Gilroy** and **Noel Clancey**."

Congratulations Matthew!

Successful Thesis Defense

Congratulations to **Emily Wainwright**, Master of Science (MSc), student, on successfully defending her thesis on May 8, 2025. Emily's Thesis was entitled "Molecular analysis of the genetic footprint of fresh retail poultry meat and the poultry fecal microbial resistome." Emily was supervised by **Dr. Lisane Ayalew** and co-supervised by **Dr. Mark Fast**.

Pathology and Microbiology Welcomes New MSc Graduate Student

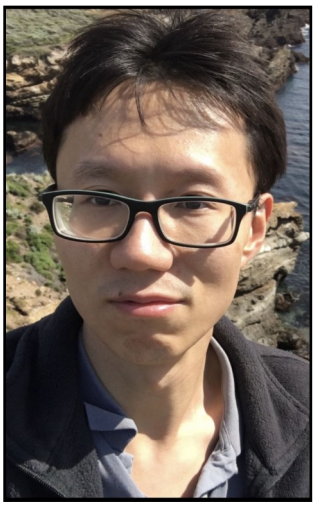
Cara Doucette (they/them) started MSc program on May 12, 2025 under the supervision of Dr. Nina Germitsch. They will be focusing their research on *Echinococcus canadensis*, an intestinal parasite in canids. Cara recentlygraduated from the University of New Brunswick with a BSc in Biology with a major in Marine Biology. In the summer of 2024, Cara worked as a research assistant in an evolutionary ecology lab. In the following fall semester, Cara focused on marine biology research courses, where an independent project on marine parasites sparked their interest in parasitology. During their time at UPEI, Cara hopes to gain new hands-on skills and learn more about wildlife health and conservation. In their free time, they enjoy baking, reading, and nature walks.

Pathology and Microbiology Welcomes New Summer Assistants

Pathology and Microbiology welcomes **Haley Kennedy**, from Chestermere, Alberta. She is entering her fourth year of Biology at the University of Prince Edward Island. This summer, Haley is working under the supervision of **Dr. Laura Bourque, Dr. Mark Fast**, and PhD student **Eleanor Glahn**. She is primarily assisting Eleanor with her research on a mold *Saprolegnia*, while also carrying out her own senior undergraduate research project titled: "Investigating the relationship between physiological stress and *Saprolegnia* infections in brook and rainbow trout in PEI rivers." Haley says, she is looking ahead at pursuing a Master's degree after completing her undergraduate studies, with the long-term goal of working with pathogens in aquatic mammals.

Outside of academics, she runs a small business called Haleyrose Company, where she designs and creates handmade items that promote self-growth and mindfulness.

The Pathology and Microbiology department welcomes **Ben Weir**, summer assistant in the Canadian Wildlife Health Corporative, (CWHC). Ben is from Sackville, New Brunswick and he is heading into his second year of the DVM program at the Atlantic Veterinary College. This summer, he will be working under the supervision of **Dr. Megan Jones**. Ben will be assisting with various pathology tasks, including necropsies and histopathology, to build hands-on experience and deepen his understanding of disease processes across different wildlife species. Ben hopes to take what he learns this summer into his future coursework and eventually into practice as a veterinarian. Outside of work, he likes to stay active by playing golf, hockey, and football. He also enjoys hiking and running when he gets the chance. Ben enjoys watching the NFL and NHL teams play. He is really looking forward to contributing to the Pathology & Microbiology team and learning as much as he can this summer.



The Pathology and Microbiology department welcomes **Yang Yang**, as an independently funded summer student under the supervision of **Dr. Lisane Ayalew.** Yang is a BSc, student in the Biology Class of 2027 (pre-vet stream) at UPEI. His project is entitled, “Molecular analysis of natural polymorphisms in the p10 protein of avian reovirus.” Yang is researching the molecular characterization of p10 protein polymorphisms in avian reovirus variant strains. Over the past two months, he has thoroughly enjoyed contributing to this project. In his free time, he loves watching movies and playing tennis.

The Pathology and Microbiology department welcomes **Abigail Black**, AVC Class of 2028, as an independently funded student under the supervision of **Dr. Lisane Ayalew**. Her project is entitled, “Comparative genomic insights into *Staphylococcus pseudintermedius* from healthy dogs and those with pyoderma” Abby comes from Belledune, NB and in the fall she is entering her second year of the DVM program at AVC. Abby’s project involves characterizing phenotypic and genotypic differences between *S. pseudintermedius* isolates from healthy dogs and dogs diagnosed with pyoderma. Outside of work, Abby enjoys spending time outdoors, including going for walks and visiting the beach.

Pathology and Microbiology Welcomes New VetSRA Students

Madison King, AVC Class of 2027, VetSRA student with **Dr. Chelsea Martin**. Project: “Invitro response of feline oral squamous cell carcinoma to changes in tumour microenvironment”

Brady Sweeney (they/he), AVC Class of 2027, is a VetSRA student under the supervision of **Dr. Nina Germitsch**. They are continuing their project from last year where they are evaluating the prevalence of *Echinococcus multilocularis* in foxes and coyotes in PEI. Brady is from Connecticut and following vet school he would like to go into pathology (tbd clinical or anatomical path). When not at AVC, Brady can normally be found at the barn, hiking, or hanging out with their cat, Fisher.

Hannah Johnston (she/her), AVC Class of 2028, is a VetSRA and Boehringer Ingelheim Veterinary Scholar student under the supervision of **Dr. Nina Germitsch**. Project: "Exploring the lung and heartworm, prevalence in Nova Scotia fox population." Her project involves looking at the prevalence of lung and heartworms in Nova Scotia foxes. Hannah is from North Tryon, PEI, and she graduated with a Bachelor of Science with a Major in Biology from UPEI. She is going into her 2nd year of the DVM program at AVC. Outside of AVC, Hannah enjoys playing music, going to the beach, and hanging out with her cat!

Sarah Purcell, AVC Class of 2027, VetSRA student with **Dr. Nina Germitsch**. Project: "Echinococcus canadensis: A hidden threat in Nova Scotia's foxes?"

Kelsey Holland, AVC Class of 2028, VetSRA student with **Dr. Shivani Ojha**. Project: "The fecal microbiome of Atlantic Canada wildlife"

Yelin Lim, AVC Class of 2028, VetSRA student with Drs. Javier Sanchez, Luke Heider and **Dr. Lisane Ayalew**. Project: "Assessing respiratory pathogens in dairy farms"

Yan-Ru Chen, AVC Class of 2028, VetSRA and Boehringer Ingelheim Veterinary Scholar student with **Dr. Mark Fast**. Project: "Behavioural thermoregulation of salmonids"

Conference Presentations

Dr. Lisane Ayalew attended the 2025 Western Poultry Disease Conference in Calgary, Alberta from April 7-9, 2025. At the conference Dr. Ayalew gave three presentations. The presentations were entitled,:

“Metabolomic biomarkers as a tool to detect acute *E.coli* septicemia in neonatal broiler chickens.”;

“Comparing immunosuppressive effects of classical and variant infectious bursal disease viruses in the bursa of Fabricius of broiler chickens.”; and

“Impact on microbiome development and early gut colonization after probiotic spray on incubating chicken eggs.

Dr. Manuel Soto-Davila, under the supervision of **Dr. Mark Fast**, attended the 2025 Aquaculture Canada Conference was held from June 8-11 in Fredericton, New Brunswick.

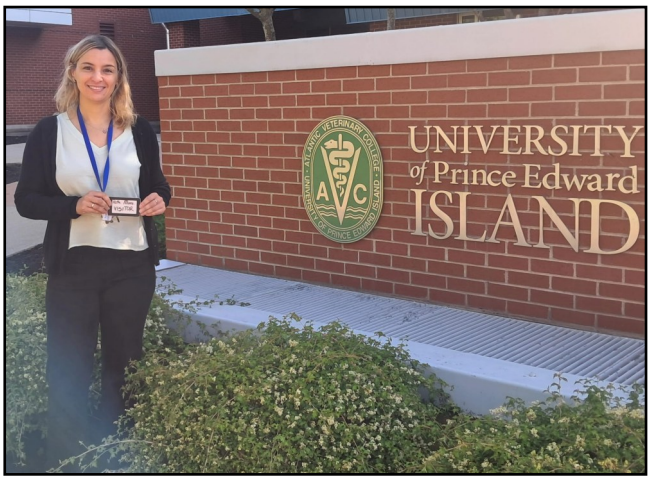
Dr. Soto-Davila gave a presentation entitled, "The Impact *of* Rearing Temperature on Vaccine-Induced Antibody Production in Atlantic Salmon: Implications for Vaccine Efficacy."

Laura Leaman, MSc, and **Brady Sweeney**, (AVC Class of 2027), presented at the Canadian Parasitology Network Symposium, held June 5–8, 2025, in Lac-Delage, Quebec, under the supervision of **Dr. Nina Germitsch.** Laura’s presentation was titled: “Not all wildlife are wildly healthy: lung -and heartworm infections in Maritime wild canids”. Brady’s presentation was titled: “The fox-inating tale of *Echinococcus multilocularis*”.

This was Brady’s first conference, where they gained valuable insight into various presentation styles. One interesting fact they learned is that a specific gene in *Cryptosporidium parvum* is essential for the production of male gamonts, enabling the parasite to enter it’s sexual cycle.

Laura and Brady also participated in the first annual Outreach Event of the CPN Symposium, where they had the opportunity to engage with the public and discuss their work on parasites. Brady received an award for the best oral presentation and the conference registration award for their work.

Pathology and Microbiology Welcomes Visiting Professor



Pathology and Microbiology welcomes **Dr. Maria Constenla,** BVM, BBSc, PhD Aquac, Dipl ECAAH. Dr. Constenla is a Professor and Researcher at the Universitat Autònoma de Barcelona (Aquatic Animal Health group, Dept. of Animal Biology, Plant Biology and Ecology). Researcher at Fish Diseases Diagnosis Service (SDPP) and current Secretary of the European College of Aquatic Animal Health (ECAAH). Dr. Constenla is visiting AVC for a three month stay from May 1– July31, and is working with both the Diagnostic Services and the Department of Pathology and Microbiology. While here as a visiting professor and researcher she will be supervised by **Drs. Ginevra Brocca** and **David Groman** from the fish pathology group. Dr. Constenla is here with a grant from the Spanish Ministry of Science, Innovation and Universities. She is participating in diagnostic post-mortem examination and histopathology analyses of fish and shellfish, as well as reviewing histopathology slides from archived diagnostic cases. In addition, she is also helping with some fish research projects ongoing here at AVC. Her teaching activity in Spain is mainly focused on fish health, parasitology, protistology, and animal biology. Her research activity is allocated within the field of fish health management, with a primary focus on farmed fish species—particularly the diagnosis of fish diseases, biosecurity measures, and welfare considerations. Additionally, her main field of expertise is histopathology and parasites affecting wild fish species, emphasizing their zoonotic potential and the implications for farmed fish populations. Please make her feel welcome!

Pathology and Microbiology Welcomes Visiting Students

Pathology and Microbiology welcomes two visiting students from the United Arab Emirates. **Hind Alkaabi** and **Shamsa Alderei.** They will be working under the supervision of **Dr. Chelsea Martin** from June 29 to July 18, 2025. During their time at AVC they will observe and help perform necropsies and attend pathology rounds.

Pathology and Microbiology welcomes Dr. Courtney Gallant, small animal surgery resident, who visited from June 2-6, 2025, under the supervision of Dr. Chelsea Martin.

Publications

Gautam H, **Ayalew LE**, Subhasinghe I, Popowich S, Matsuyama-Kato A, Chow-Lockerbie B, Tikoo S, Gomis S. Immunoprotection of Broiler Chickens Against Necrotic Enteritis by Oral Delivery of a Live *Clostridium perfringens* Vaccine Adjuvanted with Cholera Toxin at Hatch. Avian Diseases 2025; 69:91-101

Ghanei-Motlagh R, Hernández-Orts JS, **Fast MD**, El-Matbouli M, Saleh M. Morphology and molecular phylogeny of *Rhadinorhynchus nudus* (Garadam 1938) (acanthocephala: Rhadinorhynchidae) from *Euthynnus affinis* 9Scombridae) in the Persian Gulf off Iran. Syst Parasitol 2025;102:34
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MacMillan KM, Burns JJ, John E, **Clancey N**, Stull JW. The occurrence of low thyroxine concentrations and response to thyrotropin-releasing hormone using equine and canine assays in a population of Standardbred racehorses in Prince Edward Island, Canada. J Equine Vet Sci. 2025 Apr; 147:105400

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Ferro S, Mezzalira G, **Brocca G**. Hamartomas of the alimentary tract in dogs: A case series. Veterinary Pathology 2025:1-7 journals.sagepub.com/home/vet https://doi:10.1177/03009858251345829

Subhasinghe I, Gautam H, Popowich S, **Ayalew LE**, Tikoo SK and Gomis S. Induction of Trained Immunity in Broiler Chickens by Combination of *in Ovo* Delivery of a Live *Clostridium perfringens* Vaccine at Hatch to Protect Against *Escherichia coli* Septicemia Later in the Grow-Out Period. Avian Diseases 2025:69;183-199.

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For comments or suggestions for our newsletter,

please contact: Ingrid MacLeod (imacleod@upei.ca) (902) 566-0541.

Editor/ Reviewer Dr. Fred Kibenge and Dr. Shivani Ohja