

Drs. Fred Kibenge and Molly Kibenge Retire from UPEI



(L-R: Dr. Molly Kibenge and Dr. Fred Kibenge)

Retirement of Dr. Fred Kibenge

*By Dr. Yingwei Wang, School of Mathematics and Computer Science
(<https://www.upeifa.ca/congratulations-2024-2025-retirees/>)*

After 36 years at UPEI, Dr. Fred Kibenge retired from his position as Professor of Virology in the Department of Pathology and Microbiology, Faculty of Veterinary Medicine, University of Prince Edward Island (UPEI), effective August 31, 2025. As one of his colleagues and collaborators, I collected information of his academic experience to celebrate his rich achievements and success.

Dr. Kibenge obtained his Bachelor of Veterinary Medicine (BVM) degree in 1978 from Makerere University Faculty of Veterinary Medicine in Kampala, Uganda. An internationally trained virologist, he obtained his PhD in Animal Virology in 1982 from Murdoch University in Murdoch, Western Australia, and extensive postdoctoral research experience in virology in the United Kingdom (3 years at University of Liverpool in England) and the United States (3 years at Washington State University and 2 years Ohio State University), prior to joining the Atlantic Veterinary College (AVC), UPEI, as Associate Professor, Virology, in July 1989. He is also a 1988 diplomate of the American College of Veterinary Microbiologists (ACVM), with a subspecialty in Immunology.

As a faculty member at UPEI, Dr. Kibenge has participated fully in the teaching, research and service efforts, making significant contributions to AVC and UPEI.

He served as Chair of the Department of Pathology and Microbiology for four 3-year terms (2009-2021). Dr. Kibenge taught veterinary virology in the second year of the DVM curriculum at AVC, as well as virology to senior biology students, Department of Biology, Faculty of Science, UPEI. He has made significant contributions to advancing knowledge in virology and aquaculture. He initiated the Aquaculture theme of books, and has published five books by Academic Press to date. He has over 135 peer-reviewed publications and more than 120 abstracts at international scientific conferences.

He supervised or co-supervised, numerous highly qualified personnel (HQP in form of PhD and MSc graduate students, BSc Honors students, summer URSAs, Post-Doctoral Fellows, Research Associates, Research Technicians and Visiting Researchers). He was recognized by winning several awards including the 2020-2021 Merit Award for Outstanding Service, Faculty Association, UPEI (<https://www.upeifa.ca/2021/04/28/2020-2021-faculty-association-award-recipients/>), 1992 and 2017 Merit Award for Outstanding Scholarly Achievement, Faculty Association, UPEI, 2018 and 1993, Zoetis (SmithKline Beecham) Award for Research Excellence, Atlantic Veterinary College, UPEI.

During his tenure at UPEI, Dr. Kibenge is incredibly proud of his contributions to the university, including serving four 3-year terms as Department Chair, teaching in the Doctor of Veterinary Medicine (DVM) program, and enriching the academic mission and university community. I am grateful for collaborating with Dr. Fred Kibenge in teaching and research for the last 17 years I have known him, and I am pleased to honour, recognize, and thank Dr. Kibenge for his 36 years as a UPEI faculty member. I hope to continue to benefit from Fred's presence as an Adjunct Graduate Faculty member at UPEI.

Retirement of Dr. Molly Kibenge

Dr. Molly Kibenge retired from her position as Research Associate in the Department of Pathology and Microbiology, Faculty of Veterinary Medicine, University of Prince Edward Island (UPEI), effective August 10, 2025.

Dr. Molly Kibenge obtained her Bachelor of Veterinary Medicine (BVM) degree in 1981 from Makerere University Faculty of Veterinary Medicine in Kampala, Uganda. She followed her husband on an international academic journey to Australia, the United Kingdom, the United States of America, and finally Canada while raising their three children. Molly obtained both her MSc (1995) and PhD (2000) in Endocrine Physiology from UPEI (Supervisor was Dr. Cathy Chan), and post-doctoral training in Molecular Virology at the Centre for Animal and Plant Health, Canadian Food Inspection Agency, Charlottetown, PEI, with Dr. Carol Simard, at AVC with Dr. Fred Kibenge, and at Pacific Biological station, Department of Fisheries and Oceans (DFO), Nanaimo, BC, with Dr. Simon Jones. Since then, Drs. Fred and Molly Kibenge worked together for 21 years, running the AVC Virology Research Laboratory. During this time, their work included training graduate and summer students as well as post-doctoral fellows working on research projects with different animal viruses, and collaboration with other faculty members. Molly has several peer-reviewed publications and abstracts to international scientific conferences, and co-authored a book chapter in the Aquaculture Virology textbook published by Academic Press.

Dr. Molly Kibenge is grateful to the campus community and particularly members of the Department of Pathology and Microbiology and Department of Biomedical Sciences (previously Department of Anatomy and Physiology) for their contribution to her growth and appreciation of academia. Molly will remain in touch as an Adjunct and Graduate Faculty member at UPEI during her retirement, in between enjoying spending time with her three granddaughters.

Thank you from Drs. Fred and Molly Kibenge

Dear Colleagues, thank you for your kind words and wishes in the retirement cards we both received. It has been a real pleasure, an opportunity of a lifetime, and a privilege to work alongside you all at AVC. Interestingly, we feel like we are still working among you, so we do not understand what retirement is all about, yet.

Thank you, and best wishes to you all.

Fred and Molly Kibenge.

Pathology & Microbiology Welcomes



Pathology and Microbiology welcomes **Dr. Will Robbins**, who joined the department this fall as a veterinary parasitology resident/post-doctoral fellow under the supervision of **Dr. Nina Germitsch**. Will has had the pleasure of meeting, learning from, and working with most of the Path Micro faculty and staff during his MSc (parasitology), PhD (parasitology), and DVM programs. He is incredibly excited about beginning the next chapter of his career with Dr. Germitsch and the Department. He is excited to learn as much as possible from Dr. Germitsch, her colleagues, and the Department members to prepare for a career in academia and become a board-certified veterinary parasitologist by the American College of Veterinary Microbiologists (ACVM). Will is honoured to be the first veterinary parasitology resident at the Atlantic Veterinary College (AVC). His three year program is funded by Boehringer-Ingelheim, Mitacs, and the Department of Pathology and Microbiology. Will's primary research will focus on *Dirofilaria immitis* (the American Heartworm) in canids of Atlantic Canada. He looks forward to beginning his program and seeing everyone all in the Department.

Pathology & Microbiology Welcomes New MSc Student



The Department of Pathology and Microbiology is pleased to welcome Master of Science student, **Javon Lo**, who joined the department in September 2025. Javon earned her Bachelor of Science in Marine Biology with a Certificate in Animal Behaviour at Dalhousie University. As an undergraduate, she completed an honours thesis examining the relationship between juvenile white shark movements and the tidal dynamics of the Bay of Fundy. Following her graduate studies, Javon worked as a lab technician, in the Department of Biochemistry at Stony Brook University where her research focused on ribosomal regulation of defective mRNA in prokaryotes. During her graduate studies, Javon aims to integrate her passions for molecular research and marine biology under the supervision of

Dr. Mark Fast. Her research will investigate the genetic mechanisms of disease resistant in salmon infected with sea lice. When she is not in the lab, Javon enjoys baking desserts and adventuring with her cat, Tootsie.

Pathology & Microbiology Welcomes New MSc Student



The Department of Pathology and Microbiology is pleased to welcome Master of Science student **Samantha MacEachern**. Samantha is working under the supervision of **Dr. Lisane Ayalew**. Her research project, titled "*Effect of natural polymorphism of the Sigma C gene of avian reovirus on protein function and virus host cell interactions*," is funded through Mitacs and BIOVECTRA. Samantha holds a Diploma in Bioscience Technology from Holland College and a BSc in Biotechnology from UPEI. Over the course of her academic journey, she has also gained industry experience through several roles, including Research Associate at MicroSintesis, a PD Analytical Support Student at BIOVECTRA, and a Summer Researcher at UPEI (also through Mitacs and BIOVECTRA). After completing her MSc, Samantha plans to pursue a career in Prince Edward Island biotech industry. She currently resides in Bonshaw PEI, and she enjoys reading, gardening, walks on the beach and the occasional trail run.

Pathology & Microbiology Welcomes Visiting Researcher



Dr. Mark Fast, with the Department of Pathology and Microbiology, is pleased to welcome **Dr. Ashley Powell** as a visiting researcher from September 22 - October 17, 2025. Dr. Powell graduated from the DVM program at AVC in 2019. Ashley is currently completing a residency and PhD in aquatic and anatomic pathology at the University of Georgia.

Funding Success



Congratulation to **Dr. Nina Germitsch** for successfully securing \$150,000 in funding from Boehringer Ingelheim Animal Health Canada Inc. and Mitacs to support a new residency position in parasitology. The project, titled *Dirofilaria immitis: An emerging risk for canine health in Atlantic Canada*, will provide advanced training in diagnostic and clinical parasitology while addressing an important emerging threat to canine health in the region.

Dr. Matthew Yeung Successfully Completes MVSc Examination



Congratulations to **Dr. Matthew Yeung** who successfully completed his MVSc examination and defended his MVSc project report, entitled “*Assessment of proteinuria detection in dogs by visual and automated dipstick analysis and sulfosalicylic acid test compared with the urine protein:urine creatinine ratio*” on July 14, 2025. Matt was co-supervised by **Drs. Noel Clancey and Cornelia Gilroy**. **Dr. Russel Fraser** chaired the examination committee.

Congratulations Matt!

AVC SRLP Poster Presentations

The following DVM students conducted research in the Department of Pathology and Microbiology as part of the 2025 AVC Summer Research and Leadership Program (SRLP) and presented their work during the AVC SRLP Poster Presentations from August 26 – 27, 2025.



Madison King, AVC Class of 2027, presented her poster “*Pro-angiogenic tumor-stroma interactions in the feline oral squamous cell carcinoma microenvironment*”, supervised by **Dr. Chelsea Martin**.

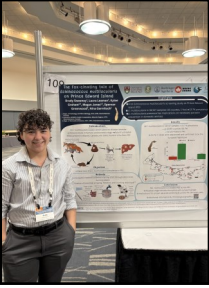


Sarah Purcell, AVC Class of 2027, presented her poster, “*Determining the prevalence and distribution of Echinococcus canadensis in Nova Scotia’s wild fox population*”, supervised by **Dr. Nina Germitsch**.



Yang Yang, UPEI BSc in Biology Class of 2027, presented his poster “*Functional implications of natural polymorphisms in the p10 protein of avian reovirus*”, supervised by **Dr. Lisanework Ayalew**.

AVC SRLP Poster Presentations



Brady Sweeney, AVC Class of 2027, presented their poster "*The fox-cinating tale of Echinococcus multilocularis on Prince Edward Island*", supervised by Dr. Nina Germitsch. Brady received second place at the SRLP Poster Presentation.



Yelin Lim, AVC Class of 2028, presented her poster "*Genomic and phenotypic characteristics of antimicrobial resistance in bovine respiratory bacterial pathogens*", supervised by Drs. Javier Sanchez, Luke Heider and **Lisanework Ayalew**.



Yan-Ru Chen, AVC Class of 2028 presented her poster "*Impact of vaccination temperature on Atlantic salmon resistance of infectious salmon anemia virus*", supervised by **Dr. Mark Fast**, and was awarded first place at the SRLP Poster Competition.



Kelsey Holland, AVC Class of 2028, presented her poster "*Investigation of the fecal microbiome of raccoons (Procyon Lotor) in a captive environment*", supervised by **Dr. Shivani Ojha**.



Hannah Johnston, AVC Class of 2028, presented her poster "*Exploring the prevalence of lung and heartworms in Nova Scotia foxes*", supervised by **Dr. Nina Germitsch**.



Abigail Black, AVC Class of 2028, presented her poster "*Comparative genomic insights into Staphylococcus pseudintermedius from healthy dogs and those with pyoderma*", supervised by **Dr. Lisanework Ayalew**.

Conferences



Dr. Shivani Ojha presented her research on "*Isolation and Characterization of Pseudomonas aeruginosa Bacteriophage*" at the International Symposium of the World Association of Veterinary Laboratory Diagnosticians (ISWAVLD) held in Calgary, June 12-14, 2025. Her presentation was featured in the session of AMR Surveillance and Approaches to Combating AMR.



Photo (Left to Right): [Name unknown], Dr. Maria Constenla, Dr. Ginevra Brocca, and Dr. Luis Garcia, [Name unknown].

The 22nd International Conference on Diseases of Fish and Shellfish was held at the Cultural Conference Center of Heraklion on the island of Crete, Greece from August 31 to September 4, 2025. The conference was attended by AVC's diagnostic anatomic fish pathologist, **Dr. Ginevra Brocca**, recent summer visiting scholar and UAB professor, **Dr. Maria Constenla**, and 3rd year small-fry anatomic pathology resident, **Dr. Luis Garcia**. The conference commenced with an all-day and case-filled workshop focusing on gill histopathology that included two cases presented by Dr. Constenla and Dr. Garcia's frivolous note-taking. After 4 days of exciting and fantastic lectures, Dr. Brocca was among the few selected and shell-ebrated for the Best Poster Award for her work titled "*16S rRNA NGS-based characterization of a Flavobacterium-driven skin pathology in rainbow trout*", which was awarded one of the three Best Poster Awards at the conference's gala dinner. The conference concluded with a day tour of CRE (TAquarium, the island of Spinalonga, and the town of Agios Nikolaus. The 23rd International Conference on Diseases of Fish and Shellfish will be held in Bergen, Norway in 2027. For more details, visit, (<https://eafp2025.org/>)



Photo (Left to Right): Dr. Ginevra Brocca, Astrid Holzer (EAFP Meetings Secretary), and Klaus Knopf (EAFP President).



Photo: Third from the left -Dr. Ginevra Brocca, with other award winners (names unknown).

Publications

Ghanei-Motlagh R, Cai W, Poley JD, Whyte SK, Garber AF, Fast MD. Sea lice (*Lepeophtheirus salmonis*) life stage impacts Atlantic salmon transcriptomic responses under different thermal profiles. *Frontiers in Genetics* 2025:16;1633603 doi:10.3389/fgene.2025.1633603
<https://www.frontiersin.org/journals/genetics/articles/10.3389/fgene.2025.1633603/full>

Ranaraja A, Subhasinghe I, Ahmad SN, Banaganapalli B, Popowich S, Parambath SV, **Ayalew LE**, Mandal R, Wishart DS, Tikoo S, Gomis S. Temporal metabolomic fingerprinting identifies adenine as a novel biomarker for early detection of *Escherichia coli* in broiler chickens. *Scientific Reports* 2025:15;31580
<https://doi.org/10.10138/s41598-025-16873>

Fast MD, Veltman CV, Purcell SL, McCurdy R, Maguire D, Groman DB, Andrew S, Poley JD, Jia B, Whyte SK. Impacts of jellyfish homogenates on Atlantic salmon (*Salmo salar*) gill and head kidney cells. *Aquaculture Reports* 2025:44;103073 <https://doi.org/10.1016/j.aqrep.2025.103073>

Jenkins E, Volappi T, Malone CJ, **Germitsch N**, Virtanen JP, Oksanen A, Bessell E, Lundström-Stadelmann and Frey CF. Changing distribution, diversity, and health impact of *Echinococcus multilocularis* in Europe and North America: Comparison, connections, and opportunities. *Advances in Parasitology*, Volume 128 ISSN 0065-308X. <https://doi.org/10.1016/bs.apar.2025.07.003>

For comments or suggestions for our newsletter,

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