

Pathology & Microbiology Newsletter Bi-monthly News Bulletin Atlantic Veterinary College University of Prince Edward Island Issue 53 December 2019



The Chair's Holiday Greeting and End of Year Message



It has been an excellent year for additions and accomplishments within our Path/ Micro team, and 2020 promises to build on this successful trend. We cannot make such progress without the contributions from all levels within the department, and you are all greatly appreciated. Thank you all for your patience and support to me personally, as a 'Green' Interim Chair over these last few months, and I hope that in returning the reins to Dr. Kibenge, the department is in no worse shape than when he left it. I would like to share my heartfelt best wishes to everyone within the Department of Pathology and Microbiology, and hopes for a great holiday season for everyone, their families and friends.

Sincerely, Mark Fast



Appointment



Dr. Chelsea Martin has recently been appointed for a 3 year term as a member of the NSERC Scholarships and Fellowships Selection Committee for Cellular and Molecular Biology. The committee evaluates applications for postdoctoral fellowships and postgraduate doctoral scholarships.

Award



PhD student, **Dr. Walaa Nasry**, was recently awarded the Lévesque Graduate Fellowship in Nutrisciences and Health. J.-Louis Lévesque graduated with a B.A. from Saint Dunstan's University (SDU) in 1934 and was granted an honorary doctor of laws degree by SDU in 1964. Through a generous endowment from the Foundation J.-Louis Lévesque, UPEI founded the Jeanne and J.-Louis Lévesque Fund for Nutrisciences and Health. Walaa is supervised by **Dr. Chelsea Martin**.

Congratulations Walaa!

Pathology and Microbiology Welcomes Dr. Jean Mukherjee

evaluation of



During October and November, **Dr. Jean Mukherjee** assisted **Drs. Anne Muckle** and **Janet Saunders** with the course VPM 2010 Bacteriology and Mycology as a term instructor. Jean has over 20 years of experience in teaching, contract research, and laboratory regulatory experience at the Tufts University Cummings School of Veterinary Medicine and the University of Massachusetts-Amherst. She has a broad teaching portfolio that includes veterinary and human microbiology, parasitology and pharmacology. Her research has been primarily focused on the development and use of animal models for

candidate therapeutics against an array of toxin-mediated and infectious diseases, including botulism, ricin, *Cryptococcus neoformans*, *Clostridium difficile* and ESKAPE organisms.

Dr. Mukherjee contributed significantly to the successful delivery of VPM 2010 this semester. A highlight of Jean's teaching session was the opportunity for students to submit an extra credit project on a microbiology lecture topic of their choice. The students enthusiastically unleashed their remarkable creative microbiology spirit!

Photo L to R: Drs. Anne Muckle, Janet Saunders, and Jean Mukherjee (L to R) with the display of some of the AVC Class of 2022 students' VPM 2010 special projects.



PhD Comprehensive Examination



Congratulations to **Haifaa Mahjoub** who successfully passed her PhD Comprehensive Examination on Monday, December 9, 2019. Haifaa is cosupervised by **Drs. Gary Conboy** and Spencer Greenwood. **Dr. Mark Fast** chaired the PhD Comprehensive Examination Committee.

Congratulations Haifaa!

ACVP Certifying Examination Board in San Antonio

The annual meeting of the American College of Veterinary Pathologists (ACVP) and the American Society for Veterinary Clinical Pathology (ASVCP) took place November 9-13th in San Antonio, Texas. At this meeting,

Dr. Shelley Burton co-presented a workshop on writing multiple-choice questions. It was provided to



members of the Test Item Writers Group (TIWG) which falls under the Certifying Examination Board (CEB) of the ACVP. Dr. Burton was also recognized for her voluntary chairing of the Clinical Pathology TIWG. Other members similarly honored were Drs. Patricia Pesavento and Denise Imai (co-chairs of the Anatomic Pathology TIWG), Dr. Elena Gorman (co-chair of the Clinical Pathology TIWG), Dr. Dalen Agnew (CEB Chair) and Dr. Melinda Camus (Chair of the Examination Assembly and Administration Group (EAAG).

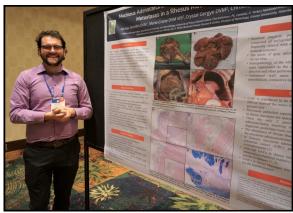
Photo: L to R: Drs. Melinda Camus, Denise Imai, Patricia Pesavento, Dalen Agnew, Shelley Burton and Dorothee Bienzle (ACVP President). Photo courtesy of the ACVP.

Presentations



Dr. Cora Gilroy attended the International Symposium of the Veterinary Schools Council in Harpenden, United Kingdom, held from July 3-5, 2019. She presented a short communication entitled "Investigating the long-term impacts of "place—rich" community—based learning experiences on veterinary student participants in remote northern Canadian communities" (**Gilroy C**, VanLeeuwen C, Taylor J, Hopson M, Walton C, VanLeeuwen J).

Dr. Nicolas Decelles, first-year MVSc/resident in anatomic pathology, presented a case report as a poster at the American College of Veterinary Pathologists/American Society for Veterinary Clinical Pathology (ACVP/ASVCP) annual meeting held November 9-13, 2019 in San Antonio, Texas. His poster was titled, "Mucinous Adenocarcinoma of the Ileocecal Junction with Intraperitoneal Metastases in a Rhesus Macaque (Macaca mulatta)". Nicolas is under the supervision of **Drs. Megan Jones** and **Melanie Buote.** Nicolas received travel funds from the Department of Pathology and Microbiology, the UPEI Office of Research, and Yerkes National Primate Research Center.



CWHC Performs Necropsy on Rare Whale at AVC

On December 11, pathologists, students, and staff from the Canadian Wildlife Health Cooperative (CWHC) and AVC performed a necropsy on a rare Cuvier's beaked whale in the AVC postmortem laboratory. The adult male whale had been found dead on December 9 on the Acadian Peninsula of New Brunswick, and was delivered to the CWHC by officers from Fisheries & Oceans Canada. It weighed nearly 5300 lbs. and measured 5.5 m in length, making it possibly the largest animal that has ever come to the college. This is the second Cuvier's beaked whale to have come to our diagnostic laboratory. These whales are the deepest diving mammals in the world, recorded at depths of up to 3000 m, and are known to lower their heartbeat to one beat per five-minute period to accomplish such a feat. The necropsy and clean-up took approximately 7 hours. Accompanying the CWHC / AVC team was NB Museum curator and longtime CWHC collaborator, Don McAlpine, who is very interested in this species as an accidental or rare visitor to our region. A definitive cause of death has not yet been determined, but **Dr. Laura Bourque** (lead pathologist on the case) and pathology resident **Dr. Nicolas Decelles** are working on histology and further testing.

Photo L to R: Officers from Fisheries and Oceans Canada delivering a Cuvier's beaked whale from New Brunswick to the AVC postmortem laboratory. (Photo credit: Darlene Weeks).



2019 Chinook Project Travel Progress Report



The Chinook Project completed its fourteenth year of clinics in June 2019. As a charitable mobile veterinary service, the project has held 24 clinics in 12 different locations and has seen over 2000 animals. Over 1000 spay and neuter surgeries have been performed.

In June the team travelled to Nain, Labrador. This was the fifth visit (2012, 2014, 2016, 2018) to this Inuit based, most Northern community of Labrador. Dr. Heather Gunn-McQuillan and Dr. Peter Foley (AVC), both seasoned Chinook participants (fifth trip for both), were joined by Dr. Mike West (AVC – new veterinarian participant), and five veterinary students (hailing from Newfoundland, Nova Scotia, Prince Edward Island and the United States). In addition, Dr. Becky Jackson (Valley Vet, Goose Bay) who has travelled with the Chinook Project six times, joined the team for the first week in Nain. Once again, the success of the trip also heavily depended on local coordination. In Nain, the team spent 4 clinic

days seeing 122 patient visits in the local fire hall. Twenty-three surgeries were completed

(ovariohysterectomies, castrations, dental procedures, and other soft tissue surgeries) and 98 medical appointments were seen for a variety of conditions.

On June 16th, the team packed up and flew to Natuashish and from there was welcomed by this Innu First Nation. The team spent four clinic days in Natuashish and were able to complete 21 surgeries (ovariohysterectomies, castrations, wound repair and dental procedures) and see 44 medical appointments for a total of 65 patient visits. The total number of animal visits in Labrador clinics in 2019 was 187.

The Chinook Project is in the process of making plans for 2020 when we will be returning to Labrador. We hope to continue our relationships with Nain, Sheshatshiu, and Natuashish, but need to find local coordinators who can provide support on the ground. We have also been approached by the Southern Coastal communities, with a strong proposal to consider holding clinics there. The Chinook Project will continue to look for collaborative opportunities with Veterinarians without Borders (VwB) and other groups and hope to see a





national strategy for access to veterinary care emerge. We participated in VwB panel discussions in 2017 and 2018 held at national conferences, and continue to provide information and propose ideas. Also, we are interested in future research opportunities and developing a humane education plan.



Bovine Pathology in Mexico



Dr. Alfonso López, Professor Emeritus in Pathology and Microbiology, was an invited speaker in two academic events in Mexico. During October 16-18, 2019, Dr. López was in the northeastern city of Ciudad Victoria in the state of Tamaulipas, where he gave a keynote presentation on the pathophysiology of sepsis. This event, organized by the Faculty of Veterinary Medicine at the University of Tamaulipas, was part of a major conference on equine and bovine diseases. Dr. Lopez also attended a meeting of bovine pathology that took place in Tecomán, a rural town in the state of Colima near the Pacific coast. Dr. López presented two papers on bovine pneumonia. This conference was sponsored by the University of Colima, which was celebrating in 2019 an 80th anniversary.

Publications

Awosile B, Reyes-Velez J, Cuesta-Astroz Y, **Rodriguez-Lecompte JC**, Saab ME, Heider LC, Keefe G, Sãnchez J, McClure JT. Short Communication: Whole- genome sequence analysis of 4 fecal *bla_{CMY-2}* producing *Escherichia coli* isolates from Holstein dairy calves. Journal of Dairy Science 2020; Vol103: No 1.

Xue X, Woldemariam NT, Caballero-Solares A, Umasuthan N, **Fast MD**, Taylor RG, Rise ML, Andreassen R. Dietary Immunostimulant CpG Modulate4s MicroRNA Biomarkers Associated with Immune Responses in Atlantic Salmon (*Salmo salar*). Cells 2019; 8:1592; doi:10.3390/cells8121592.

Montoya-Méndez CB, Ruíz-Ramírez JA, García Márquez LJ, Méndez-Bernal A, Morales-Salinas E, Molina-Ochoa J, Ramírez-Romero R, Martínez-Burnes J, **López A**. Hepatogenous photosensitization by *Brachiaria spp* in sheep: First report in Mexico. Brazilian Journal of Veterinary Pathology 2019; 12: 128-133

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