

Pathology & Microbiology Newsletter Bi-monthly News Bulletin Atlantic Veterinary College University of Prince Edward Island Issue 56 September, 2020



Dr. Shannon Martinson Recipient of the 2020 Zoetis Teaching Award



Congratulations to **Dr. Shannon Martinson** who has been selected as the recipient of the 2020 Zoetis Carl J. Norden Distinguished Teacher Award. This is the highest teaching award given by each North American veterinary college. The award will be presented at the AVC Recognition Night this fall.

Congratulations Dr. Martinson!

Dr. Janet Saunders Presented with the 2020 Dean's Award of Excellence



Congratulations to **Dr. Janet Saunders,** laboratory technologist in the Department of Pathology and Microbiology. Dr. Saunders was presented with a 2020 Dean's Award of Excellence during the AVC Virtual Summer Social in June. She was nominated by **Drs. Anne Muckle** and **Gary Conboy**, and Liz Dobbin, Director of Diagnostic Services, for her significant contributions to veterinary teaching and diagnostic services.

With her unique skill set and expertise Janet provides essential technical support to maintain the peak performance level of the Clinical Parasitology Laboratory of Diagnostic Services.

Janet has been responsible for technical support of the laboratory component of the second year DVM course, VPM 2010 Veterinary Bacteriology and Mycology,

for the past three years. She had a key role during the 2019 fall semester, working with Dr. Anne Muckle and sessional instructor Dr. Jean Mukherjee to successfully deliver the course. Her natural talent as an instructor became readily apparent during the laboratories. The students in the AVC Class of 2022 loved her calm, caring, and personable manner, as can be seen by their comments:

"Dr. Saunders was awesome in the lab!!"

"She was one of my very favorite instructors - always cheerful and happy to help."

Congratulations Dr. Saunders!

Pathology & Microbiology Welcomes New Adjunct Graduate Faculty Member



Welcome to **Dr. Angela Riveroll**, research associate in the Department of Applied Human Sciences at UPEI, who was recently re-appointed in February 2020 as adjunct professor in the Department of Pathology and Microbiology at the Atlantic Veterinary College. Her first appointment in the department was in 2009, while she was the Development Manager for the Novartis Animal Health Aqua Health Vaccine Division. She earned her PhD from Dalhousie University in the field of microbiology and immunology in 2006 and most recently is pursuing a Graduate Certificate in bioinformatics from Harvard University Extension. She is passionate about research, learning and teaching. She is collaborating with **Dr. Fred Kibenge** and **Dr. Molly Kibenge** on a precision medicine project that is funded by the Janssen Health Innovation Partnership. This project involves identifying auto-antigen profiles for inflammatory bowel disease patients to assist gastroenterologists to use a personalized approach to medicine in selecting the best medications for the right patient, based on the patients' individual biological profiles. Last winter she taught the proteomics

module for VPM 8710. When she is not at work, she enjoys spending time with her husband (Enrique Sr.) her three kids Enrique Jr. (19), Christianne (16) and Alyana (5), as well as her three "fur babies"; Steve (a Welsh Pony), Brooklyn (a British Riding Pony) and Wolfie (her 13 year old Shih tzu).

Pathology & Microbiology Welcomes Back Dr. Jean Mukherjee



The department of Pathology and Microbiology is pleased to welcome back **Dr. Jean Mukherjee.** Jean is back with us again this time as the course coordinator for VPM 2010 Bacteriology and Mycology. Jean has over 20 years of experience in teaching, contract research, biosafety, infection control and management of a high security laboratory. She has a broad teaching portfolio that includes veterinary and human microbiology, parasitology and pharmacology. Her research has mainly been focused on the development of antibody-based diagnostic and therapeutic agents and establishment and use of various animal models for evaluation of candidate biologic and small molecule therapeutics. She has worked extensively with an array of biological toxins and pathogens, including, botulinum toxin, ricin, *Cryptococcus neoformans*, *Clostridium difficile, E. coli* 0157 and ESKAPE organisms.

Pathology & Microbiology Welcomes New Graduate Student



The Department of Pathology and Microbiology welcomes **Laura Groves**, who started her Master of Science program on September 7, 2020. She is supervised by **Dr. Mark Fast**. Laura graduated from Dalhousie with a Bachelor of Science (Agriculture), majoring in Animal Science in 2018. She is a proud Newfoundlander, who has been living on PEI for the last two years, working mainly at Southport Animal Hospital. In her free time she loves spending time outdoors, acting, reading, travelling (pre-COVID-19 pandemic), staying active, and volunteering as a summer camp counsellor.

Release of North Atlantic Right Whale Mortality Event Incident Report



In June 2020, **Drs. Laura Bourque**, **Pierre-Yves Daoust**, and **Megan Jones**, along with collaborators Dr. Stephane Lair, Canadian Wildlife Health Cooperative (CWHC), Quebec University of Montreal) and Tonya Wimmer (Marine Animal Response Society, NS), released a comprehensive incident report from the investigation into the the 2019 mortality event of critically endangered North Atlantic right whales in the Gulf of St. Lawrence.

The incident report summarizes final necropsy results for the five right whales examined in 2019, and also provides context for other 2019 right whale incidents, right whale conservation, mitigation efforts, and marine animal stranding networks in Canada.The complete, 210-page report is available on the CWHC website: <u>http://www.cwhc-rcsf.ca/docs/2019%</u> 20NARW%20incident%20report_June%202020.pdf

New Initiative: Wildlife Health and Plastic Pollution

The Canadian Wildlife Health Cooperative (CWHC), Atlantic Region, along with the CWHC National Office and other CWHC regional centers, has launched a new project. It is aimed at increasing its capacity to identify and characterize plastic pollution found in wildlife across Canada, with support from Environment and Climate Change Canada. This project will grow the capacity for national monitoring and surveillance of plastics that entangle or are ingested by wildlife among CWHC's regional centres.



As part of the project, CWHC will carry out targeted outreach, training and develop educational materials, as well as create monitoring protocols to ensure consistency in analysis and reporting across Canada. It will also develop new technologies to store, share, and utilize monitoring and observational data to provide a better understanding of the effects that plastic pollution has on wildlife. The initial pilot project will run until March 2021, and the goal is to secure additional resources to allow continued surveillance of plastic pollution to be integrated in to the existing wildlife health surveillance program.

Tail of a minke whale that was found to be entangled in fishing gear in Prince Edward Island. Photo: Canadian Wildlife Health Cooperative, Atlantic Region.

Transnational Conference on Bovine Pneumonia



There is little doubt that the COVID-19 pandemic has dramatically changed scenes of contemporary society, and academia is no exception. Distant learning education has quickly replaced the usual face-to-face presentations. Last June **Dr. Alfonso Lopez** presented a multinational webinar entitled "Bovine Pneumonia," simultaneously transmitted in 13 Latin American countries. In attendance were over one thousand professionals, mostly bovine practitioners, diagnosticians, and students. This now popular on-line way of life is challenging for those whose neurons were unexposed to computers and digital technology in early adolescence or childhood. Yes, everyone knows

how to use Power Point, but according to Dr. Lopez in the last five months he had to learn seven different platforms for on-line lecturing. Each country or institution seems to have its preferred web platform; some are not user friendly. On the bright side, this new cyber-normality provides a unique opportunity to attend a multitude of webinars worldwide. As a non-golfer, "non-anything" UPEI retiree, Dr. Lopez enjoys listening to two or more webinars a week.



Dr. Kibenge is Appointed Section Editor for Virology Journal

Congratulations to **Dr. Fred Kibenge** who has been appointed Section Editor for a new section for the *Virology Journal*, Clinical Virology, effective June 1, 2020 (<u>https://virologyj.biomedcentral.com/articles/sections/</u> <u>clinicalvirology</u>). Since July 2017, Dr. Kibenge has also served as one of the Associate Editors within the Veterinary RNA viruses section of the *Virology Journal*. *Virology Journal* is an open access, peer-reviewed journal that publishes articles on all aspects of virology, including research on the viruses of animals, plants, and microbes.

Congratulations Dr. Kibenge!

Publications

Gilroy C, Raab O, Hanna P. Pathology in Practice. JAVMA 2020;257: 2.

Bourque L, Greenwood SJ, **Jones MEB**. Acute toxoplasmosis and pox-viral dermatitis in a juvenile bald eagle (*Haliaeetus leucocephalus*) in New Brunswick, Canada. Canadian Veterinary Journal 2020;61:880-884.

Elad O, Uribe-Diaz S, Losada-Medina D, Yitbarek A, Sharif S, **Rodriguez-Lecompte JC**. Epigenetic effect of folic acid (FA) on the gene proximal promoter area and mRNA expression of chicken B cell as antigen presenting cells. British Poultry Science https://doi.org/10.1080/00071668.2020.1799332.

Jaime J, Vargas-Bermúdez, Yitbarek A, Reyes J, **Rodriguez-Lecompte JC**. Differential immunomodulatory effect of vitamin D $(1,25(OH)_2D_3)$ on the innate immune response in different types of cells infected *in vitro* with infectious bursal disease virus. Poultry Science 2020;99:4265-4277 https://doi.org/10.1016/j.psj-2020.06.006.

Braden L, Michaud D, Okechukwu OI, Dondrup M, Hamre L, Dalvin S, **Purcell SL**, Kongshaug H, Eichner C, Nilsen F, **Fast MD**. Identification of critical enzymes in the salmon louse chitin synthesis pathway as reveled by RNA interference-mediatd abrogation of infectivity. International Journal for Parasitology https://doi.org/10.1016/J.ijpara.2020.06.007.

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