

# Pathology & Microbiology Newsletter Bi-monthly News Bulletin Atlantic Veterinary College University of Prince Edward Island Issue 44, June, 2017



#### **Awards Received**



Congratulations to **Dr. Juan Carlos Rodriguez-Lecompte**, who was the recipient of the 2017 Zoetis Award for Research Excellence. The award is given at each North American veterinary college to researchers with outstanding scholarly achievement. His research focuses on the nutritional immunological factors regulating immune responses, animal health, and food safety. The main research application is in nutrients, their bioactive supply, and the relation with several immunosuppressive diseases. His research has contributed significantly to the understanding of the nutritional, microbiological and molecular factors affecting the requirements of animals for immune responses, including nutrients, immune cells, and intestinal microbiota.

Well done Dr. Rodriguez- Lecompte!

Photo: Dr. Juanita Glencross-Winslow, Manager Veterinary Service at Zoetis; presenting Dr. Juan Carlos Rodriguez-Lecompte a plaque.



Congratulations to **Dr. Fred Kibenge** who has been selected as a recipient of the 2017 UPEIFA Merit Award for Scholarly Achievement.

Dr. Kibenge was honoured at the annual Faculty Recognition Night that was held on Wednesday, May 10, 2017, at the Fox Meadows Golf Club, Stratford.

Well done Dr. Kibenge!

Photo: Dr. Tim Goddard, Faculty of Education presenting Dr. Fred Kibenge a plaque.



We extend our congratulations to **Dr. Gary Conboy** who received the 25 Year Service Award in appreciation of his 25th Anniversary at UPEI. The presentation took place during the 2017 Celebration of Colleagues (Presidential Recognition Awards for Staff and Faculty) on Tuesday, May 23, 2017, in McMillan Hall, W.A. Murphy Centre.

Congratulations Dr. Conboy!

## 2017 Graduate Studies Research (GSR) Days Award Winners



Congratulations to **Dr. Anil Kalupahana**, PhD student, Department of Pathology and Microbiology, who was the recipient of the Dr. Douglas W. Ehresmann Graduate Award presented to the student who performed outstanding research in some aspect of virology.

Well done Anil!



Congratulations to **Dr. Nicole Kaiser**, MVSc student, Department of Pathology and Microbiology, who was the recipient of the 2016 Dr. Basil Ikede Award in Diagnostic Veterinary Sciences.

Well done Nicole!



Congratulations to **Kami Harris**, PhD student, Department of Pathology and Microbiology who was the recipient of the award for the Best Overall PhD Graduate Student Presentation and best paper presentation in Session three.

Well done Kami!

#### 2017 Jacob G Schurman Memorial Graduate Studies Award Winner



Congratulations to **Jordan Poley**, PhD student supervised by Dr. Mark Fast, who was awarded the Jacob G Schurman Memorial Graduate Studies Award for his thesis proposal entitled "Transcriptional signatures of stress in the salmon louse (*Lepeophtheirus salmonis*)." This \$1000 award is presented to a graduate student whose thesis is determined to be high quality as assessed by the UPEI Graduate Studies Advisory Committee. Applicants must submit a letter outlining their research and what makes it to be of superior quality, curriculum vitae and one letter of reference.

Jordan also received the Merck Animal Health High Quality Salmon (HQS) Science Award to present a 30 minute seminar at the Merck Animal Health HQS Congress in Aberdeen, Scotland, from May 30 - June 1, 2017.

**Excellent work Jordan!** 

### Welcome Dr. Laura Bourque - New Diagnostic Wildlife Pathologist



We welcome **Dr. Laura Bourque**, who has joined the department in a 2-year term position as a Diagnostic Wildlife Pathologist with the CWHC. Dr. Bourque is no stranger to AVC and UPEI; from 2006 to 2009 she completed her MSc (Biology) degree, and from 2009 to 2013 her DVM degree. Dr. Bourque has just finished her Doctor of Veterinary Science degree in anatomic pathology at the University of Guelph.

# Welcome New Staff to Pathology and Microbiology



**Ingrid MacLeod** has been appointed to the permanent full-time ADS Level 4 position as Administrative Assistant in the Department of Pathology and Microbiology effective June 26, 2017. Ingrid has been serving in the position as a term appointment since August 4, 2014.

Ingrid is married with two children and five grandchildren. In her spare time she enjoys reading, gardening and painting.

#### PhD Defense



Congratulations to **Dr. Melanie Buote** who received her PhD degree during the May 13th convocation at UPEI. A native of North Rustico, Prince Edward Island, Melanie is a 2003 graduate of the Atlantic Veterinary College (AVC). Following graduation, she enrolled in a Residency in Anatomic Pathology in the Department of Veterinary Pathobiology at Texas A&M University and became board certified in Anatomic Pathology by the American College of Veterinary Pathologists in 2006. Melanie returned to work as a contract diagnostic anatomic pathologist at the AVC in 2008 and started a part-time PhD in the Department of Pathology and Microbiology in 2009 under the supervision of Dr. **Rick Cawthorn** and Dr. Russ Kerr. Her project involved microscopic and metabolomic investigation of *Hematodinium* infections in snow crabs.

#### **PhD Comprehensive Examination**



Congratulations to **Kami Harris** who successfully passed her PhD Comprehensive Examination on June 5, 2017. Kami is co-supervised by **Dr. Pierre-Yves Daoust** and Dr. Vett Lloyd (Mount Allison University). **Dr. Fred Markham** chaired the PhD Comprehensive Examination Committee.

Congratulations Kami!

#### Pathology and Microbiology Says Goodbye to Dr. Enrique Aburto



Photo: left to right- Dr. Fred Kibenge presenting Dr. Enrique Aburto and his wife Patty Aburto with a gift at his farewell party.

The Department said a fond farewell to **Dr. Enrique Aburto** in January 2017. Before coming to the AVC, Dr. Aburto had been a professor of veterinary anatomic pathology for 18 years at the National Autonomous University of Mexico (UNAM). Dr. Aburto served as an anatomic pathologist in our department from September 2008 to January 2017. Department members knew

him well before this, however, as he had also completed a PhD in 2000 at the AVC.

During his time as a faculty member in our department, Dr. Aburto engaged in diagnostic and research work, resident training and teaching veterinary students. Dr. Aburto has taken up a new opportunity in the pathology department of the Western College of Veterinary Medicine in Saskatoon, Saskatchewan.

We wish Dr. Aburto and his family well!



## **Dr. Scott McBurney Retires from UPEI**



After being at the Atlantic Veterinary College (AVC) for 30 years, **Dr. Scott McBurney** retired in December 2016. Originally from Newfoundland, he obtained a Bachelor of Science (Honours Wildlife Biology) from the University of Guelph and completed his Doctor of Veterinary Medicine degree at the AVC, graduating with the first class in 1990.

Following this, he finished a residency in wildlife pathology in 1994. Since June 1994, Dr. McBurney has been working as a veterinary clinical professional wildlife pathologist with AVC Diagnostic Services and the Canadian Wildlife Health Cooperative (CWHC), Atlantic Region, and has held a position as Adjunct and Graduate Faculty member with the Department of Pathology and Microbiology.

Dr. McBurney has thoroughly enjoyed his work with the CWHC network across Canada because it provided countless exciting professional opportunities at the regional, national and international level. Some highlights of his career were diagnosing emerging and/or zoonotic diseases in wild animals in Atlantic Canada, including bat white-nose syndrome, finch

trichomonosis, cryptococcosis due to Cryptococcus gattii and rabies.

Dr. McBurney's other passions involved working with endangered species, such as the piping plover and mainland Nova Scotia moose, to ensure health issues were not contributing to their decline. Lastly, outreach and education of veterinary and biology students, wildlife professionals, veterinarians and the general public about the importance of wildlife health surveillance were activities that he was dedicated to throughout his career.

Although officially retired, Dr. McBurney is not yet ready to completely leave the Atlantic Veterinary College. He plans to continue as an adjunct and graduate faculty member in the Department of Pathology and Microbiology and an associate of the CWHC, Atlantic Region, so that he can continue working on aspects of wildlife health throughout Atlantic Canada. In particular, he hopes to leave his desk and spend more time outdoors enjoying the fieldwork component of various projects. Furthermore, retirement will give him the freedom and time to pursue interests apart from work. These include spending time with his wife, Kim, and his four children (Shilo, Tessa, Liam and Aiden), travelling, skiing, biking and, in the short term, restoring a canvas covered cedar strip canoe that was recently rescued from an old garage.

We wish Dr. Scott McBurney all the best on his retirement!

Taken from Diagnostic Update, Feb/17 – S. McBurney

Retirement of Dr. Scott McBurney

By Cornelia Gilroy, Veterinary Clinical Pathologist

### Dr. Barb Horney Retires from UPEI



**Dr. Barbara Horney** was well known as a mainstay of excellent clinical pathology work at the Atlantic Veterinary College (AVC) for many years. Barb grew up in Guelph, Ontario, and was surrounded by veterinary medicine her entire life, since her father, Dr. Donald Horney, was a large animal surgeon at the Ontario Veterinary College (OVC). As they say, the "apple doesn't fall far from the tree"; Barb entered veterinary school at the OVC, becoming increasingly intrigued with clinical pathology.

Her parents were definitely proud when she graduated with the gold medal for the highest academic average of her veterinary class in 1982. Barb then entered a PhD program under the supervision of Dr. Ted Valli, a renowned hematopathologist, and graduated in 1987.

Following an enjoyable time at the diagnostic laboratory in Kemptville, Ontario, she moved to PEI to join the AVC in 1988, working with Dr. David Honor in the early development of courses and the diagnostic laboratory. She became a Diplomate of the

American College of Veterinary Pathologists in 1990. Barb has a passion for ethics and integrity in research and veterinary professionalism, and has funneled that interest into lectures and committee work both locally and farther afield.

She is past President of the Society for Veterinary Medical Ethics and served on the University of PEI Ethics Board. Her leadership positions included the presidency of the PEI Veterinary Medical Association and the Canadian Association of Veterinary Pathologists. She was representative for the AVC and the University of Montreal on the Canadian Veterinary Medical Association Council.

The AVC clinical pathology group and our diagnostic laboratory benefitted greatly from Barb's many attributes, including her quick mathematical mind (she is a human calculator!), kind support of colleagues and students and numerous contributions to improving courses and laboratory quality.

Barb was our resident Lyme disease and leptospirosis expert and always seemed to be the one on duty when interesting infectious disease cases come through! She is always in good humor and has an infectious laugh; both were very much appreciated during busy work days. Barb loves a good debate and is astonishingly knowledgeable about widely varying aspects such as unusual pathologic diseases, world events and movie star trivia.

Barb has many interests outside of veterinary medicine. Along with her husband, Carl, she enjoys time spent in the PEI woods on horseback and on the water in canoes or kayaks. They have 2 grown children, Sam and Ellie, who are forging successful careers of their own in engineering and science. Barb is an avid reader and CBC radio listener and in the other meaning of that abbreviation, an avid CBC data interpreter!

We wish Dr. Barb Horney all the best on her retirement!

Taken from Diagnostic Update, Feb/16 – Staff Focus - B. Horney

By Shelley Burton, Veterinary Clinical Pathologist

## **Patty McKenna Retires from UPEI**



**Patty McKenna** retired this past March after nearly thirty years as a Laboratory Technologist at the AVC. Over her career, she has worked in various laboratories in Department of Pathology/ Microbiology showing a strong work ethic and a personable and approachable demeanour.

She has been a mentor to many graduate students, researchers and staff alike. With her years of experience, her easy-going personality and ever present smile, it is easy to see why. Her knowledge and willingness to help others has been a great asset to the AVC and her confidence and strong leadership skills have made an everlasting impact on all those she has worked with over her career.

Besides being a highly respected laboratory technologist, Patty is also an avid knitter, quilter and fabric artist. She is still an active member of the AVC Tuesday knitting group and is the goto person for any knitting dilemma. Whether it be a dropped stitch or a complicated pattern, Patty is always willing to lend a helping hand. Nowadays, many of Patty's knitting projects are centered around her new grand-daughter, Lily.

Many of Patty's workmates consider her their Martha Stewart. Over the years she has impressed us with her wonderful Christmas trees, delicious baking and willingness to take on any project. She is always eager to participate in AVC activities and lend a hand when needed. The many photos of our coffee group over the years can attest to her readiness to participate in fun and entertaining adventures. She has certainly been a positive influence in making the work place a more cheerful and pleasurable environment.

Patty also enjoys fashion, shopping and travelling with her husband, Mike. They just returned from a holiday to Florida followed by a road trip with her daughter and grand-daughter to Quebec. Patty grew up in New Carlisle, Quebec, where her mother, Kassie, still resides, so her travels to Quebec with her daughter and grand-daughter brings the four generations of family together. She frequently travels to Halifax to visit her two children, Christopher and Alicia, their spouses, and her grand-daughter, Lily. She is looking forward this summer to relaxing in her backyard swimming pool with her family and friends. Although Patty has only been retired a short time, she is already having a very busy and enjoyable retirement.

We wish Patty McKenna all the best on her retirement!

P. McKenna – written by Rosemary McKenna (sister-in-law)

# Pathology and Microbiology Triple Retirement Party



Photo to the left: Dr. Fred Kibenge, Chair of Pathology and Microbiology, presenting a bouquet to **Dr. Barb Horney** on her retirement.



Photo to the right: Dr. Fred Kibenge, Chair of Pathology and Microbiology presenting, a bouquet to **Patty McKenna** on her retirement.



Photo above: Dr. Fred Kibenge, Chair of Pathology and Microbiology presenting, a bouquet to **Dr. Scott McBurney,** and his wife, Kim Hender on his retirement.



Photo: left to right: **Drs. Barb Horney**, and **Scott McBurney** and **Patty McKenna** cutting their retirement cake.



Photo: left to right: **Patty McKenna, Drs. Scott McBurney** and **Barb Horney** pictured in front of the Atlantic Veterinary College (AVC).

#### Wildlife Diseases Network in Mexico

During the first week of April, **Dr. Alfonso Lopez** attended the 3rd Meeting of the Wildlife Network held in Colima, Mexico. Dr. Lopez was invited to join a university consortium formed by the universities of Colima, Nuevo Leon, and Tamaulipas, to study common wildlife diseases in Northern Mexico. For the last two years, this multidisciplinary group has focused their attention to parasitic pneumonia in opossums (*Didelphis virginiana*), highly prevalent in the Pacific coast of Mexico. The team is also studying the role of non-tuberculous mycobacteria in granulomatous diseases of white-tail deer and wild hogs in Tamaulipas, a Mexican state that shares a long border with Texas. One of the goals of this consortium, besides the scientific conclusions, is to raise awareness of students and veterinarians regarding the importance of wildlife diseases so frequently overlooked by universities and government agencies in Mexico.



**Photo:** (right to left). Dr. Rafael Ramirez, University of Nuevo Leon; Dr. Luis Jorge Garcia-Marquez, University of Colima; Dr. Julio Martinez-Burnes (AVC Ph.D. 2001), University of Tamaulipas; Dr. Alfonso Lopez, Professor Emeritus, AVC.

#### CFIA/C3G/GQ Genomic Virology Workshop, March 6-7, 2017

**Dr. Molly Kibenge** and **Dr. Fred Kibenge** (front row, third and fourth from left) attended a workshop on bioinformatics approaches for viral characterization using Next Generation Sequencing (NGS) data, which was held at McGill University, Montreal, March 6-7, 2017.

The workshop consisted of both lectures and practice sessions including free computer time with instructors. It was jointly organized by the Canadian Food Inspection Agency (CFIA), the Canadian Center for Computational Genomics (C3G), Genome Québec (GQ) and the University of Florida (UF) (<a href="http://www.computationalgenomics.ca/cfia">http://www.computationalgenomics.ca/cfia</a> genomic virology 2017/).

The instructors were Dr. Mattia Prosperi (missing from the picture), Dr. Alberto Riva (front row, second from left) and guest instructors Jae Min (front row, second from right) from the University of Florida, Department of Epidemiology, and Dr. Levent Albayrak (back row, first from left) from the University of Texas Medical Branch. The organizing host was Dr. François Lefebvre (front row, fifth from right), Bioinformatics Manager, Canadian Centre for Computational Genomics (C3G) - Montréal Node.



### **Upcoming Special Departmental Seminar**

**Dr. Leonardo Susta**, Seminar title: Ontario Small Poultry Disease Surveillance: Year One. Tuesday, July 11, 2017.

## **Upcoming PhD Thesis Defense**

Dr. Anil Kalupahana, PhD Thesis Defense, Wednesday July 12, 2017.

#### **Publications**

Vélez JR, Cameron M, Rodriguez-Lecompte JC, Xia F, Heider LC, Saab M, McClure JT Sánchez J. Whole-Genome Sequence Analysis of Antimicrobial Resistance Genes in *Streptococcus uberis* and *Streptococcus dysgalactiae* Isolates from Canadian Dairy Herds. Frontiers in Science 2017; 4: 63. DOI: 10.3389.

Conboy G, Guselle N, Schaper R. Spontaneous Shedding of Metastrongyloid Third-Stage Larvae by Experimentally Infected *Limax maximus* Parisitol Res 2017; 116: S41-S54 DOI 10:1007/s00436-017-5490-2.

Sutherland BJG, Covello JM, Friend SE, Poley JD, Koczka KW, Purcell SL, MacLeod TL, Donovan BR, Pino J, González-Vecino JL, Gonzalez J, Troncoso J, Koop BF, Wadsworth SL, Fast MD. Host-parasite transcriptomics during immunostimulant enhanced rejection of salmon lice (*Lepeophtheirus salmonis*) by Atlantic salmon (*Salmo salar*). Facets 2017; 2: 477-495. DOI: 10.1130/facets-2017-0020.

Cameron M, Barkema HW, DeBuck J, Vliegher SD, Chaffer M, Lewis J, Keefe GP. Identification of bovine-associated coagulase-negative staphylococci by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry using a direct transfer protocol. J Dairy Sci 2017; 100: 2137-2147 https://doi.org/10.3168/jds.2016-12020.

Granger P, de Boissel J, Fournier M, Rodriguez-Lecompte JC, McKenna P, Kibenge F, Siah A. Functional and molecular responses of the blue mussel *Mytilus edulis* hemocytes exposed to cadmium - An in *vitro* model and transcriptomic approach. Fish & Shellfish Immunology 2017; 67: 575-585.

For comments or suggestions for our newsletter, please contact: Dr. Fred Kibenge (<u>kibenge@upei.ca</u>) or Ingrid MacLeod (<u>@upei.ca</u>) (902) 566-0541.

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