

Path Micro News

A bi-monthly news bulletin
Department of Pathology and Microbiology
Atlantic Veterinary College
University of Prince Edward Island



Issue 15, September -October 2010

III International Course of Fish Pathology in Bogota, Colombia



During August 16 to 18, 2010, **Dr Gerry Johnson** and colleagues Hugh Ferguson and Carlos Iregui taught a fish pathology diagnostic course at the National University of Colombia. Attendees included veterinarians working in diagnostic laboratories from all regions of Colombia, as well as Venezuela, Panama, Brazil and other Latin American countries, and pathology graduate students from the University of Columbia Icthyopathology department and other campuses in Colombia and Venezuela. Dr Johnson presented lectures on finfish disease, shellfish disease and biosecurity. In the days following the course, graduate students presented their projects for review and comment. The faculty at the National University are hoping to develop collaborative projects with AVC, especially in the area of shellfish production.

Clinical Pathology Trainig for Internal Medicine and Surgery Residents



L to R: Drs Cora Gilroy, Heather Fenton, Fiona Tam, Kyle Clark, Agatha Kisiel, Oriana Raab and Vladimir Stojanovic

The small animal internal medicine and surgery residents enjoyed an intensive week of clinical pathology training August 23-27th. **Drs Shelley Burton**, **Cora Gilroy** and **Barb Horney** led the sessions. For the internal medicine residents, this met the requirement for residency programs accredited by the American College of Veterinary Internal Medicine (ACVIM).

This college mandates a week of exposure to one or more pathologists who are boarded Diplomates of the American College of Veterinary Pathologists (ACVP). The requirement for residency programs accredited by the American College of Veterinary Surgeons (ACVS) is for 2 weeks of exposure, so the clinical pathologists will work with the surgery residents for another week. In addition to the 5 AVC residents who participated, the group was pleased to host Dr. Fiona Tam, an internal medicine resident from the Western College of Veterinary Medicine.

Keynote Speaker at the Mexican Association of Bovine Practitioners

Sponsored by *Bayer Laboratories of Mexico*, **Dr Alfonso Lopez** was the keynote speaker for the XXXIV National Congress of the Mexican Association of Bovine Practitioners. This meeting took place August 5-7 in Monterrey, Nuevo Leon, in northern Mexico. Dr Lopez was invited to present two papers: "Respiratory Pathology for Bovine Practitioners" and "Comparative Pathology of Sepsis and Septic Shock in Domestic Animals". Dr Lopez was also part of a workshop on diseases of feedlot cattle and compared notes with Mexican practitioners on the current trends of bovine diseases in North American feedlots. Clearly, emerging diseases in Canada and the United States quickly appear in Mexican feedlots.

In Monterrey, Dr Lopez met with Dr Julio Martinez-Burnes (AVC PhD '2000), and Dr Consuelo Almazan who a few years ago were beneficiaries of the UPEI project sponsored by the Canadian International Development Agency (CIDA).

Photo: Dr Alfonso Lopez with Dr Consuelo Almazan, Universidad Autonoma de Tamaulipas.



Two New Diplomates of the American College of Veterinary Pathology





We are very pleased for **Dr Christina Glover** who recently became board certified in Anatomic Pathology by the American College of Veterinary Pathology. A native of Ghana, Christiana came to AVC for a combined MVSc Residency Program and completed her degree in 2005. As part of her MVSc program, she studied the extrapituitary and pituitary lesions in horses with pituitary pars intermedia dysfunction co-supervised by **Drs Lisa Miller** and **Alfonso Lopez**. After her training at AVC, Christiana moved with her family to Montreal and started a new position as veterinary pathologist with ITR Laboratories, Canada Inc. Congratulations to Christiana for her momentous accomplishment. You can reach Christiana at cglover@itrlab.com

Congratulations to **Dr Noel Clancey** who recently passed the certifying examination of the American College of Veterinary Pathologists (ACVP) in clinical pathology, becoming a boarded Diplomate in this specialty. This examination is given each September in Ames, Iowa. Due to flooding of the regular building in Ames, the examination in 2010 was written at a large church on the outskirts of town. As the examination is difficult and pass rates are low, only very well prepared candidates who have devoted many months of study achieve Diplomate status. Therefore, the congratulations offered to Noel are well deserved!

Dr Alfonso Lopez Received the Hessian Teaching Award

During the UPEI Recognition night on October 2, 2010, **Dr Alfonso Lopez** received the Hessian Teaching Award for 2010. The nomination for this award was made by Professor Shannon Murray, a 3M teaching scholar from the Faculty of Arts. Brent McLaine, a Professor of English also from the Faculty of Arts, gave the introductory remarks during this event. He summarized some of the comments sent to the award selection committee by DVM and graduate students, and peers at AVC. The role of Dr Lopez in international education, free internet access to didactic material and his passion for teaching were recognized during this award ceremony.



Photo: Brent McClaine and Alfonso Lopez

Dr Nakhyung Lee Received the PEI Innovation Postodoctoral Award

Dr Nakhyung Lee was awarded a postdoctoral fellowship from Innovation PEI. Dr Lee will work on the project entitled "A novel strategy to control *Listeria monocytogenes* in ready-to-eat lobster products".





This research fellowship award will allow **Dr Mateo** to work with **Drs Siah**, **Yason** and **Groman** in their recently granted PEI Innovation Development and Discovery Project. The project consists of the development and validation of a new diagnostic tool which uses microarray fluidic bead-based assay technology. The assay will simultaneously detect conserved nucleic acid targets of five economically important salmonid viruses: Viral Hemorrhagic Septicemia Virus, Infectious Salmon Anemia Virus, Infectious Hematopoietic Necrosis Virus, Infectious Pancreatic Virus and Pancreas Disease Virus. The analysis will be performed in a liquid system using Luminex instrumentation enabling a multiplexed bead-based suspension array platform. This new diagnostic tool could ultimately be used for the diagnosis of disease outbreaks, routine monitoring and biosurveillance

of salmonid virus diseases. Work will be performed at the Mollusk Health Laboratory of the Department of Pathology and Microbiology and the Regional Diagnostic Virology Laboratory of AVC Diagnostic Services.

Visiting Scientist from Chile

Dr Isabel Cornejo is a Post-Doctoral Fellow at the Centro de Ingenieria de la Innovacion (CIN), which is associated with the Centro de Estudios Científicos



(CECS) in Valdivia, Chile. In 2007, she obtained her PhD in Molecular and Cellular Biology from the Universidad Austral de Chile. Her thesis work was developed at the CECS and its aim was to study the traffic and expression of the CIC-2 chloride channel in the cell membrane of mammalian cells. Since 2008, she has worked at CIN in the Fish Aquaculture Biotechnology Laboratory to develop biotechnological tools to be applied to fish aquaculture and the use of zebrafish as a transgenic model using fluorescent proteins as reporter genes. She is a collaborator on several research projects of the UPEI Aquatic Virology Collaborating Centre and will be in the OIE Reference Laboratory for ISA working with **Dr Fred Kibenge** for next 6-8 weeks.

Visiting Professors from Mexico

Drs Jose Ramirez Lezama and **Larisa Chavez-Soriano**, a husband and wife team from the Faculty of Veterinary Medicine at the National University of Mexico (UNAM), in Mexico City, have come to the Department of Pathology and Microbiology for a 6-month academic visit.

Jose (Pepe) is an anatomic pathologist and teaches General and Systemic Pathology in Mexico. He also does necropsy examination and biopsy service for domestic animals and wildlife at UNAM.

Larisa is a fish pathologist at UNAM. The main purpose of her visit to AVC is to further her laboratory knowledge and skills in pathology in general and fish and shellfish diseases.



Visiting Professor from Egypt



Dr Moustafa Seleem Abou El fetouh Atta from the Department of Pathology, Faculty of Veterinary Medicine, Zagazig University, Zagzaig, Egypt, visited the Department of Pathology and Microbiology between October 5th and 13th, 2010. The purpose of his visit was to participate in discussions of the Ph.D. research project of **Dr Haythm Ali,** under the Graduate Student Mobility Program of the University of Prince Edward Island. Dr Ali's project deals with diagnostic aspects of bovine abortion and mastitis of viral origin. In addition, he conducted discussions with various members of the Department. Dr Ali's research supervisor is **Dr Arnost Cepica**, in collaboration with **Dr Paul Hanna** and Dr Greg Keefe (Health Management).

Atlantic Society of Fish and Wildlife Pathologists



Left to right: Whitney Kelly-Clark, Jason LeBlanc (ASFWB President) and Heather Fenton

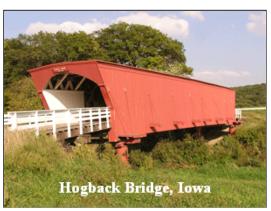
students **Dr Heather Fenton** (MVSc candidate) and **Ms Whitney Kelly-Clark** (MSc candidate) attended and presented at the meeting. Heather reviewed the White Nose Syndrome epidemic currently affecting bat populations in the US and Canada and Whitney presented preliminary results of her research into trichomoniasis / trichomonosis as an emerging disease in wild birds. Whitney's presentation "Trick or Tweet: Why is a new parasitic disease causing mortality in Maritime wild finch populations?" won **First Prize** for Student Presentations.

Master of Veterinary Science Examination

On September 24, 2010, **Dr Elizabeth O'Neil** passed her project report defense and disciplinary examination to complete the qualifications of her Master of Veterinary Science (MVSc) degree. The goal of her project was to potentially improve the quality of urinalysis for dogs and cats, with various aspects evaluated, including prediction of bacteriuria, assessing cell count techniques and evaluating urine sediment cultures. The title was, "Evaluation of detection methods for bacteriuria, pyuria and hematuria in dogs and cats". "Dr O'Neil has another year left in her combined residency /MVSc program; she will focus on publication of her research and preparing for the certifying examination of the American College of Veterinary Pathologists (ACVP).



Appointment at the American College of Veterinary Pathologists



Dr Shelley Burton had the recent honor of being appointed to the Chair position of the Clinical Pathology section of the Examination Committee of the American College of Veterinary Pathologists (ACVP). This busy 8 member committee is responsible for writing and critiquing questions as well as going to Ames, Iowa to proctor and mark the 3 day examination. The invited members consist of 3 proctors serving a one year term and 5 core members serving 4 year terms; they have been recruited from high performing past proctors. The committee meets in via frequent electronic communications, conference phone calls and in person 3 times per year, including the Ames meeting. Although many pathologists do not have pleasant thoughts of Ames due to the stress of the examination, Dr Burton loves this area and is quick to note how beautiful it is, which includes the famous covered "Bridges of Madison County".

CCWHC students present at CARCNET/CAH annual meeting



Jessica Mitchel and Marianne Parent

On October 18-19, 2010, the Canadian Amphibian and Reptile Conservation Network (<u>CARCNET</u>) and the Canadian Association of Herpetologists (CAH) held their respective 20th and 24th annual meetings in Wolfville, Nova Scotia. The historic campus of Acadia University served as the backdrop of the meetings where numerous researchers and students from across the country presented their work. Canadian Cooperative Wildlife Health Centre students **Jessicca**Mitchell (3rd year) and Marianne Parent (1st year) presented results from their summer research. Jessicca presented the "Prevalence and intensity of *Hepatozoon* sp infection in green frogs (*Lithobathes (Rana) clamitans*) on Prince Edward Island" and Marianne covered "Preliminary comparisons of wild anuran species abundance, water quality measures, weather and land use on Prince Edward Island, Canada.

Recent Publications

Forzan MF, Vanderstichel RV, Hogan NS, Teather K, Wood J. Prevalence of *Batrachochytrium dendrobatidis* in three species of wild frogs on Prince Edward Island, Canada. <u>Diseases of Aquatic Organisms 2010;91:91-96</u>

Schnier JJ, Hanna P. Feline porphyria associated with anemia, severe hepatic disease, and renal calculi. Canadian Veterinary Journal 2010;51:1146–1151

Traversa D, Cesare AD, Conboy G. 2010. Canine and feline cardiopulmonary parasitic nematodes in Europe: emerging and underestimated. Parasites and Vectors 3: 62 (22 pages; electronic journal: http://www.parasitesandvectors.com/articles/browse.asp).

Bustin SA, Beaulieu JS, Huggett J, Jagg R, Kibenge FSB, Olsvik PA, Penning LC, Toegel S. MIQE precis: Practical implementation of minimum standard guidelines for fluorescence-based quantitative real-time PCR experiments. Molecular Biology 2010 10:74;1-5. [Highly accessed].

Speare DJ. Disorders Associated with Exposure to Excess Dissolved Gases. Fish Diseases & Disorders. 2010;2:342-356.

Uehlinger FD, Burton SA, Riley CB, Wichtel MEG, Bourque AC. Cutaneous and tendon sheath mastocytomas with eosinophilic joint and tendon sheath effusions in a horse. Journal Veterinary Internal Medicine 2010; 24: 1233-1236.

Conferences and Proceedings

Groman DB, PY Daoust. 2010. Wild Tuna Necropsy - Tuna Meltdown. Proceeding of the 6th International Symposium on Aquatic Animal Health, September 5-9, Tampa, FL. USA.

Groman, DB, Threader RW, Wadowska D, Maynard T, Bimke L. 2010. Results of fish health assessment of glass eels, *Anguilla rostrata*, from Canadian Maritime Rivers from 2006 – 2010. Proceeding of the 6th International Symposium on Aquatic Animal Health, September 5-9, Tampa, FL. USA.

O'Brien NY, Groman DB, Giles J, Whelan DS. 2010. Detection of *Yersinia ruckeri* in juvenile cultured Atlantic cod (*Gadus morhua*) in a Marine Nursery located in Atlantic Canada. Proceeding of the 6th International Symposium on Aquatic Animal Health, September 5-9, Tampa, FL. USA.

Kibenge, F.S.B., Olmos, P., Almonacid, J., Gherardelli, V., Gaggero, A., Kibenge, M., Avendano-Herrera, R., and Godoy, M. 2010. Observations on the behaviour of Chilean strains of infectious salmon anaemia virus in cell culture (Poster). OIE International Symposium on Infectious Salmon Anaemia, September 13-15, Oslo, Norway.

Rimstad, E, Falk K, Mjaaland S, Kibenge, FSB. 2010. Characterization of infectious salmon anaemia virus (Plenary). OIE International Symposium on Infectious Salmon Anaemia, September 13-15, Oslo, Norway.

Conboy G, Stewart TA, Taylor A. 2010. Baylisascaris procyonis infection in raccoons and dogs on Prince Edward Island, Canada. Proceedings of the 55th Meeting of the American Association of Veterinary Parasitologists, July 31- August 2, Atlanta, Georgia, USA.

Conboy G, Little S, Snowden KF, Krecek T. 2010. Summary of the 2009 AAVP Veterinary Parasitology Education Symposium – Clinical Competencies and Outcomes Assessment. Proceedings of the 55th Meeting of the American Association of Veterinary Parasitologists, July 31- August 2, Atlanta, Georgia, USA.

Dr Mark Fast's AVC Seminar

Dr Mark Fast, Novartis Research Chair in Fish Health, presented the seminar titled "Woo-Woop-Woop – That's the sound of_pE-M-S (pathogen evasion, modulation and stimulation)" on Friday, September 17. This was the first seminar in the series being presented at AVC for 2010-2011.

Departmental Seminars

October 21	In vivo optoacoustic imaging of a transgenic rodent model of prostate cancer	Michelle Patterson Biomedical Sciences
October 28	Developmental studies in wood frog (<i>Lithobates sylvaticus</i>) exposed to endosulfan	Ravinder Sappal Pathology and Microbiology
November 4	Heterologous production of bioactive terpenes	Jennifer Cuillerier Biomedical Sciences
November 18	Dose-response curves of Morphine in Zebrafish	Angela Douglas Biomedical Sciences
November 25	Vascular endothelial growth factor-receptor 2 (VEGFR-2) tyrosine kinase-inhibitor induced liver injury in rats	Trohadio Munoz Biomedical Sciences
December 2	Dose-Response Curves of Morphine in Rainbow Trout (Oncorhynchus mykiss)	Sara Jones Biomedical Sciences
	Investigating Chinese Herbal Extracts as Potential Weight Loss Therapeutics	Ben Perry Biomedical Sciences

Benchtops in Teaching Lab 215N Cleaned

If you used the teaching laboratory 215-N recently, you might have noticed a brown stain on the benchtops as a result of a cleaning that had been done in the summer months. Now it is there no more! Our thanks to Facilities Management staff who figured out the chemical reaction on the benches and recommended a clean up with baking soda paste. Most appreciated are all those (Heather Briand, Beatrice Despres, Judy Sheppard, Nicole Murphy, Allan MacKenzie, Margaret Horne, Drs Jeff Lewis, Tarek Saleh, Toki Iwamoto, Anne Muckle, Byeong Jeon, and David Sims) who volunteered their time to restore the benchtops to their original shiny state. Thank you all for a job well done and also thanks to Joan Masterson and Dr Lisa Miller for working so diligently to resolve this problem.

Funding News

There online tutorials for potential student (USRA) applicants are now available on the NSERC website at: <a href="http://www.nserc-crsng.gc.ca/Students-Etudiants/Tutorial-Tutorial-Tutorial-Tutorial-Tutorial-Potential-Tutorial-Potential-Tutorial-Potential-Potential-Tutorial-Potential-P

Post Doctoral Research Fellowships (PDRF) offered through Foreign Affairs and International Trade Canada (DFAIT): Program description including eligibility requirements and application information can be found on the

Department Representative with UPEIFA

Our thanks to **Dr Barb Horney** who has agreed to serve as the liaison or communications person between the department and the Faculty Association Executive.



Please don't print this newsletter unless you really need to!

For comments or suggestions for our newsletter, please contact
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