



**Pathology & Microbiology Newsletter**  
**Bi-monthly News Bulletin**  
**Atlantic Veterinary College**  
**University of Prince Edward Island**  
Issue 26, September - October 2012

**UPEI**  
UNIVERSITY  
of Prince Edward  
ISLAND

***Welcome to Dr. Juan Carlos Rodriguez-Lecompte***

**Dr. Juan C. Rodriguez-Lecompte** recently joined the Department of Pathology and Microbiology as a tenured Associate Professor of Immunology. He obtained his DVM and an MSc in immunology in his native Colombia, and in 2002, completed his PhD at UPEI under the supervision of **Dr. Fred Kibenge**. In 2002, he moved to Ontario and worked for 5 years as a postdoctoral fellow and research associate at the Centre for Gene Therapeutics at McMaster University. In 2007 he joined the University of Manitoba as Assistant Professor, and was later on promoted to Associate Professor. Dr. Rodriguez-Lecompte's experience and interests are in innate and adaptive immunity, host-pathogen interaction, zoonotic and avian diseases, oncology and vaccinology. His current research focuses primarily on animal models of human cancer and gastrointestinal immunology in several animal species, particularly in poultry.



***49th Annual Meeting of the Atlantic Society of Fish and Wildlife Biologists***



The CCWHC Atlantic was honored to be the hosting organization of the 49th annual meeting of the Atlantic Society of Fish and Wildlife Biologists (ASFWB) this past October 23-25, 2012. The meeting took place in Charlottetown, at the beautiful Rodd Charlottetown Hotel. An informal ice-breaker at Saint James' Gate allowed people to say hello to old friends, meet a variety of wildlife professionals and students, and put faces to names they had corresponded with by email or phone. The annual meeting took place amongst 29 presentations of

scientific and extension work delivered by individuals working in government, academia, private consulting firms and, most importantly, students. Close to 70 participants attended the meeting and talks. The first prize, awarded to the best presentation by a student, was won by our very own wildlife resident, **Dr. Heather Fenton**, seen here sitting with the other two members of the CCWHC team, **Dr. Maria Forzan** (right) and **Fiep deBie** (left), who were in charge of program and registration, respectively. A yearly tradition, the silent auction to benefit a student scholarship fund, was rather successful, yielding over \$800 from the sale of items donated by several Island artisans and businesses, as well as some ASFWB members. The money will go, very fittingly, to establishing a scholarship for wildlife students here at the UPEI. If you would like to see the Proceedings, go to the ASFWB website or [click here](#).

### *Faculty Honored with Teaching Awards*

The Pathology & Microbiology department again demonstrated teaching strength with faculty members receiving the 2 teaching awards presented at the AVC Awards Night on October 4th. **Dr. Paul Hanna** received the Pfizer Carl J. Norden Distinguished Teacher Award. It goes to an outstanding teacher, who, through his or her ability, character and leadership, contributes significantly to the advancement of the veterinary profession. **Dr. Shelley Burton** received the AVC Canadian Veterinary Medical Association Teacher of the Year Award. Based on a class vote, it goes to the faculty member most influential in promoting the interest and enthusiasm of second year students in veterinary medicine.



Ms. Jessica Rock, (SCVMA Senior Representative) presenting to Dr. Shelley Burton.



Dr. Juanita Glencross (Pfizer Animal Health) presenting to Dr. Paul Hanna

### *Dr. Arnost Cepica's Work on Fur Animals*

**Dr. Arnost Cepica** was an invited speaker at the International Fur Animal Scientific Association's Conference, which is organized every four years. The Conference took place in Copenhagen, August 21-24, 2012, and it was attended by over 300 hundred scientists and fur-animal-industries representatives from all over the world . Dr. Cepica



spoke on his pioneering work on the novel method for control of Aleutian disease, for which there is currently no adequate control method.

Dr. Cepica was also invited by the Canadian Food Inspection Agency of Animal Biosecurity to serve on the Canadian National Mink Biosecurity Advisory Committee. In September of 2012, the Committee finalized two documents: the National Farm-Level Biosecurity Standard and the Mink Producers' Guide.

### ***The ACVP Examination Committee in Iowa***

**Drs. Andrea Bourque** and **Shelley Burton** travelled in September 2012 to Ames, Iowa, to proctor and mark the American College of Veterinary Pathologists (ACVP) Certifying Examination. This is a rigorous 3 day board examination and successful passing confirms the title of Diplomate ACVP in either anatomic or clinical pathology. The ACVP Examination Committee writes and reviews questions, slides and images from January to May, meets in Colorado in June to bring the examination to final form, and administers it in Iowa in September. As members of the 2011-2012 committee, Dr. Bourque served a one year proctor term and Dr. Burton finished a 4 year member term. Both acknowledge the wonderful camaraderie of the committee and the excellent leadership of Dr. Mike Fry (University of Tennessee, General & Clinical Pathology Chair) and Dr. Steve Lenz (Purdue University, Anatomic Pathology Chair).



**Dr Andrea Bourque**

**Dr. Mike Fry**

**Dr. Steve Lenz**

**Dr. Shelley Burton**

### ***Canadian Bat White-Nose Syndrome Workshop***

CCWHC pathologist **Dr. Scott McBurney** participated in a Canadian Bat White Nose Syndrome (WNS) workshop in

Ottawa, October 16 – 18, 2012. The workshop brought together Canadian bat researchers, federal, provincial and territorial biologists, and wildlife health specialists to draft an action plan for the management of bat WNS in Canada. Dr. McBurney also gave an invited lecture to the Canadian Wildlife Director’s Committee on bat WNS in Canada and a shared presentation on the same topic for the National Wildlife Research Centre’s weekly seminar series at Carleton University, Ottawa, Ontario.

Bat White Nose Syndrome emerged in New York State in the winter of 2006-07 and is a fungal disease in bats caused by *Geomyces destructans*. Since its emergence, the disease has spread at an alarming rate to 19 US states and 4 Canadian provinces and is estimated to have killed more than 6 million hibernating bats.

Photo: Canadian Cooperative Wildlife Health Centre, Ontario Region



*Animal Health Consortium for Wildlife Tuberculosis*

**Dr. Alfonso Lopez** attended the first meeting of the newly formed Animal Health Consortium funded by the Mexican Federal Department of Education to link research work between three Mexican universities and AVC-UPEI in Canada. Institutional partners in this consortium are the University of Tamaulipas (Dr. Julio Martinez Burnes, PhD AVC 2000 and Dr. Hugo Barrios), University of Nuevo Leon (Dr. Luis Rodriguez PhD AVC 2001 and Dr. Rafael Ramirez Romero), University of Colima (Dr. Luis Jorge Garcia Marquez and Dr. Omar Prado), and University of PEI (Dr. Alfonso Lopez and **Dr. Maria Forzan**). The main objective of this work is to investigate the role of wild animals as reservoirs in the transmission of tuberculosis to farm animals in Mexico. During the first phase of this study, large numbers of wild animals, particularly white-tailed deer, wild boars (peccary) and opossums, will be necropsied. Tissues will be submitted for histopathological examination and mycobacterial culture and identification.



Dr. Omar Prado

Dr. Luis Jorge Garcia

Dr. Alfonso Lopez

Dr. Julio Martinez

Dr. Rafael Ramirez

## *Mysterious Cases of Bluefin Tuna Washing Up On the Shorelines of Atlantic Canada*

The Atlantic regional CCWHC office has examined three Bluefin tuna in as many years that were found dead along the shoreline of the Northumberland Strait. The examination of these specimens will hopefully help researchers to detect any significant causes of sickness and mortality associated with this important species. For more information on these cases, please visit <http://www.healthywildlife.ca/?p=1749>



### *Recent Research Grants and Contracts*

**Dr. Fred Kibenge** and Dr. Ahmed Siah (BC Centre for Aquatic Health Sciences, Campbell River, BC) are co-PIs on a successful NSERC Strategic Grant with PI Dr. Michel Fournier, and co-PIs Dr. D.G. Cyr, Dr. C. Vaillancourt, and Dr. S.T.P.Y St-Pierre, Institut Armand-Frappier (Laval, Québec), Co-PIs Dr. F.G. Gagné, and Dr. P. Brousseau, University of Québec at Rimouski, co-PI Dr. A. Spear, University of Québec à Montréal, and Collaborator Dr. Jean-Michel, Danger University of Le Havre (Le Havre, France). The project is titled "Interaction between pollution and climate changes: development of improved monitoring strategy" with total project fund of \$690,366 over 3 years.

**Dr. Dave Groman, Jan Giles, Dr. Jeff Lewis, Dr. Anne Muckle** and Dr. Sophie St. Hilaire (CRC in Department of Health Management) were awarded an in-house CERC grant for \$20,000 to undertake a "Test Validation of the MALD-TOF Mass Spectrometry (MS) for identification of Aquatic Bacterial Pathogens".

**Dr. Anne Muckle**, Dr. David Sims (Biomedical Sciences), **Dr. Barb Horney, Dr. Dave Groman, Mr. Dennis Olexson** and Mark Leggott (UPEI Robertson Library), ACOA-AIF project "Veterinary Laboratory Quality Assurance Program Expansion: Technology Innovation and Quality Assurance Accreditation" has been extended for 16 months to April 30, 2014.

Drs. Julio Martinez Burnes (University of Tamaulipas), Rafael Ramirez Romero and Luis Rodriguez) University of Nuevo Leon), Luis Jorge Garcia (University of Colima), **Alfonso Lopez** (UPEI). "Indentificacion del complejo *Mycobacterium tuberculosis*: isolation, histopathology and molecular techniques." \$64,000.

### *Recent Publications*

Garcia-Marquez LG, Lopez-Crespo RA, Lopez A, Prado-Rebolledo OF. Endogenous lipid pneumonia in opossum (*Didelphis virginiana*) captured in the state of Colima, Mexico. Vet Mex 2012; 43:241-246.

Daoust, PY, Caraguel C. The Canadian harp seal hunt: observations on the effectiveness of procedures to avoid poor animal welfare outcome. Animal Welfare 2012; 21: 445-455.

Munyaka P, Tactaman G, Jing M, O K, House JD, and Rodriguez Lecompte JC. Effects of dietary folic acid supplementation and lipopolysaccharide on systemic acute immune response of young laying hens. Poult Sci 2012; 91: 2454-63.

Munyaka P, Echeverry HM, Yitbarek A, Carmelo-Jaimes G, Sharif S, Guenter W, House JD, and Rodriguez-Lecompte JC. Performance and innate immune system responses of chickens fed with yeast-derivate carbohydrates. Poult Sci 2012; 91: 2164-724.

Yitbarek A, Echeverry HM, Brady J, Hernandez-Doria JD, Camelo-Jaimes G, Sharif S, Guenter W, House JD, and Rodriguez-Lecompte JC. Innate immune response to yeast derived carbohydrates in broiler chickens fed organic diets and challenged with *Clostridium perfringens*. Poult Sci 2012; 91:1105–1112.

Rodríguez-Lecompte JC, Yitbarek A, Brady J, Sharif S, Cavanagh MD, Crow G, Guenter W, House JD, and Camelo-Jaimes G. The effect of microbial-nutrient interaction on the immune system of young chicks following early probiotic and organic acids administration. J Anim Sci 2012; 90: 2246-2254.

Li S, Khafipour E, Krause DO, Kroeker A, Rodriguez-Lecompte JC, Gozho GN, and Plaizier JC. Effects of subacute ruminal acidosis challenges on fermentation and endotoxins in the rumen and hindgut of dairy cows. J Dairy Sc 2012; 95: 294-303.

Tactacan GB, Rodriguez-Lecompte JC, O, K, and House J D. The adaptive transport of folic acid in the intestine of laying hens with increased supplementation of dietary folic acid. Poult Sci 2012; 91: 121-128.

*Recent Theses Defenses*

**Dan Hines** defended his MSc thesis titled "Molecular investigation of larval development and metamorphosis in the American lobster, *Homarus americanus*". He was supervised by Dr. Spencer Greenwood (Biomedical Sciences).

**Garry Gregory** defended his MSc thesis titled "Investigating the potential causes of muskrat (*Ondatra zibethicus*) density decline on Prince Edward Island". He was co-supervised by **Dr. Pierre-Yves Daoust** and Dr. Michael van den Heuvel (Biology).

**Kylie Muio** defended her MSc thesis titled “Identification of novel up-regulated virulence-associated proteins in *Streptococcus iniae* using quantitative proteomics". She was supervised by **Dr. Jeff Lewis**.

**Whitney Kelly-Clark** defended her MSc thesis titled “Trichomoniasis: An emerging disease in Canadian Maritime wild finch populations and a welfare issue”. She was co-supervised by **Dr. Scott McBurney** and Dr. Spencer Greenwood (Biomedical Sciences).

**Megan Bauer** defended her MSc thesis titled “Analysis of gene expression in endosulfan exposed *Homarus americanus larvae using an oligonucleotide microarray*”. She was co-supervised by Dr. Spencer Greenwood (Biomedical Sciences) and Ms Paula Jackman (Environment Canada).

*Departmental Seminars for November*

Jez Huang	Identifying protein partners for SoxC transcription factors	Nov 6	Biomedical Sciences
Heather Wotton	Differential gene expression in <i>L. salmonis</i> during host switching		Pathology Microbiology
Dr. Anil Kalupahana	Characterization of an avian orthoreovirus isolated from incidents of wild bird mortality in eastern Canada	Nov 13	Pathology Microbiology
			Biomedical

Ben Perry	Investigating Chinese herbal extracts as potential anti-obesity therapeutics	Nov 20	Sciences
Dr. Ravinder Sappal	Elevated temperature sensitizes rainbow trout mitochondria to copper toxicity	Nov 27	Pathology Microbiology

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**For comments and suggestions please contact us by e-mail:**

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