The official link to the FHS website is: http://www.fisheries.org/units/fhs

Reminder: An archive of these updates is posted on the website with the password: fhs

**FHS NEWS**

**SIXTH INTERNATIONAL SYMPOSIUM ON AQUATIC ANIMAL HEALTH (ISAAH-6)**
**Sept. 5 - 9, 2010, in Tampa, Florida, USA**
http://aquaticpath.epi.ufl.edu/isaah6

**FHS NOMINATIONS**
The time has come to nominate individuals for our 2010 section election. Positions open to election include positions in the Professional Standards, Technical Standards, Policy/Position Development, and Nominating and Balloting committees as well as Vice President. This is a great opportunity for seasoned professionals to help lead the section, and young professionals to become more involved. Nominations can be made for oneself or someone you know. The duties of all positions are explained in the FHS Procedures Manual and a list of individuals currently serving as section officers or as committee members can both be found at http://www.fisheries.org/units/fhs/committees.php.

All nominees must be FHS members and, if elected, they must also be an AFS member during their tenure as the committee chairperson or as a section officer. For a person to serve on the Professional Standards committee they must also be a certified Fish Health Inspector, a certified Fish Pathologist or a Doctor of Veterinary Medicine. Nominations will be accepted until 5PM (PST) March 20, 2009. If you are interested in being considered for any of these positions or would like to nominate someone please contact me.

Thanks,
Deb Iwanowicz

Deborah Iwanowicz
Chair, AFS/FHS Nominating and Balloting Committee
National Fish Health Research Laboratory
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**RETIREMENT!**

**FISH DOC HANGS UP FISHOSCOPE, ERIC PELTON RETIRES** – a personal note from Eric

Hey, After 41 years and down to my last Ramen noodle package in my locker, It is time to retire. My last day is the 31st of December, New Years Eve, kind of significant I suppose....the Eve of my New Year in my New Life. I plan to have a whole bunch of those years. For those of you wondering when my eyesight would finally make me fall into a raceway, well, I suppose I will have to do that OFF THE JOB now, as a private citizen. I have lots of home remodeling, and I dance 9 nights a week which takes up that time. My infamous MGs will also get some sunlight (well, probably not until winter winds down, or a sunny warm day in February?). And, of course, the GrandeTour seeing family, friends and sights (not in one of the MGs, I do want to get there and back).

I will miss you all.
Sick fish beg, gape, flop and call.
Calling, calling me.

Haiku

I could come back as a Volunteer?
Hmmm

Calling, calling me
Best wishes from Doctor. Fish
Eric hangs it up.

**MEETINGS AND WORKSHOPS - FOR INFORMATION ON THESE AND OTHER UPCOMING MEETINGS GO TO THE WEBSITE:**
http://www.fisheries.org/fhs/meeting.htm

**8TH INTERNATIONAL SYMPOSIUM OF FISH PATHOLOGISTS**
**http://www.8isfp.com/**
September 26-30, 2011
Viña del mar, Chile

**8TH INT SYMP VIRUSES OF LOWER VERTEBRATES**
http://www.usc.es/congresos/8thISVLV/index.php

Dear Colleague,
As you know, next symposium on Viruses of Lower Vertebrates will be held in Santiago de Compostela (Spain) next April.

I am writing you since to date, based on the few registrations and abstracts received, it seems more a Scottish-French-Iberian Meeting (with a few Asian and North American participants) than a real International symposium.
This meeting has been designed to awake the interest of specialists in Virology of any field. Therefore, we have got the sponsoring of the Galician Network for Biotechnology in Aquaculture (ReGABA), an organization that has accepted to edit a book (with ISBN) with the Proceedings of the meeting, what will increase the value of our contributions, indeed. In addition, we are waiting for the answer of Veterinary Research to our request to publish a special issue with the reviews of the keynotes conferences and a selection of specific oral contributions of interest.
On the other hand, we are planning to organize a roundtable (on Wednesday 28, afternoon) to discuss on the interest, opportunity and/or need to create an International Society of Virologists of Lower Vertebrates. For all these reasons, we strongly believe this can be a scientifically important meeting for virologists in this field.
Finally, for those that did already visit Santiago de Compostela in the EAFP-89 meeting, we must say that the city has experienced a complete change, still conserving the charming of the old town. And for those that have not visited Santiago before we are sure that the city and its surroundings will fulfil all your expectations for a touristic destination.
Therefore, I encourage you and your colleagues to apply for this meeting. In fact, we will extend the Abstract dead line in order to help you do it on time.

With kind regards,
Dr Carlos P. Dopazo
Symposium Organizer and Chairperson

**2010 WESTERN FISH DISEASE WORKSHOP – see WFDW 2010.doc**
http://oregonstate.edu/conferences/westernfishdisease/index.html.

**JOBS**

**POSTDOCTORAL POSITIONS: MOLECULAR DEVELOPMENTAL TOXICOLOGIST**

Our laboratory investigates the mechanisms by which chemicals and nanoparticles interact with and adversely affect early life stage development. Our group primarily uses zebrafish as a vertebrate model to identify the molecular pathways that are perturbed by exposures that ultimately lead to long-lasting functional deficits. We have a large dynamic group that collectively aims to improve and protect human health.

Two postdoctoral appointments are available immediately for a qualified applicant with experience in molecular and cellular biology. The candidate must

have a Ph.D. degree in molecular biology, biochemistry or a related field. Experience with gene expression analysis, quantitative PCR, automation, and bioinformatics are preferred. Applicants must have the ability to work both independently and as part of a diverse research team. Effective written and oral communication skills are essential. The projects involve the use of high throughput in vivo screening, global gene expression analysis, behavioral assessments, and transgenic animal use and production. Salary will be based on University guidelines for postdoctoral fellows.

To apply for this position, please e-mail a cover letter describing previous training and research interests, career goals, a CV, representative papers, and three letters of recommendation to:

Robert L. Tanguay, Ph.D.
Associate Professor
Department of Environmental and Molecular Toxicology
Oregon State University
1007 ALS
Corvallis, OR 97331
Phone: 541-737-6514
Fax: 541-737-7966
E-mail: robert.tanguay@oregonstate.edu

**PATHOLOGIST**

Salary - £24171 - £29673
Location - Aberdeen
Hours - 37 per week
Closing Date - 10 February 2010 at midnight
Reference - 1078
Employment Type - Permanent Employee

An opportunity has arisen for an experienced Histopathologist to join the Pathology and Bacteriology Group on a permanent basis at Marine Scotland, Marine Laboratory in Aberdeen.

You will examine a variety of stained tissue sections by light microscopy to assist with diagnostic investigations by detecting characteristics changes indicative of cause and progress of disease. You will have to write formal diagnostic reports to fulfil a statutory monitoring programme and participate in “case reviews” to finalise the diagnostic process.

You will engage and contribute to the development of projects as part of an active research programme including emerging diseases affecting the aquaculture industry or those relevant to wild fish stocks.

You must have a degree in a Biological Science or equivalent relevant experience. The knowledge and understanding of animal histology and histopathology and the ability to write formal diagnostic reports. You will exercise sound judgement with the ability to make independent decisions and possess excellent organisational and communication skills.

You will ideally have knowledge of fish histopathology and disease / health issues in relation to farmed and wild stocks. Be skilled in conducting scientific research. Use your professional knowledge to organise results and information towards peer reviewed publications. Posess a relevant postgraduate qualification and have the ability to establish and maintain effective working relationships.

To apply please complete the online application form. The closing date for receipt of applications is the 10 February 2010.

We welcome applications from all suitably qualified people and aim to employ a diverse workforce which reflects the people of Scotland. This is a permanent and pensionable appointment. Candidates with a disability who meet the minimum criteria for the appointment will be invited to Interview.

If you experience any difficulties accessing the Work for Scotland website, please contact Scottish Government HR Central Resourcing Unit on 0131 244 3984, or alternatively, write to The Scottish Government, Central Resourcing Unit, S1 Spur, Saughton House, Broomhouse Drive, Edinburgh EH11 3XD.

http://work-for-scotland.org/

**BACTERIOLOGIST**
Salary- £20004 - £24671
Location - Aberdeen
Hours - 37 per week
Closing Date - 10 February 2010 at midnight
Reference - 1092
Employment Type - Permanent Employee

The Marine Scotland Aquaculture and Aquatic Animal Health (AAAH) programme aims to support a healthy and sustainable Scottish aquaculture industry and to safeguard the health of farmed and wild fish stocks, through regulation and scientific advice supported by high quality data.

We are seeking a skilled Bacteriologist to join our Bacteriology team, which investigates and reports upon the health status of fish and shellfish for bacterial diseases. You will undertake diagnostic work using bacteriological and serological (ELISA) techniques, in support of fish and shellfish health surveillance and studies conducted within the AAAH programme. You will contribute to method development, and to the maintenance of our UKAS ISO 17025

accreditation which will include development and validation of new diagnostic tests to satisfy UKAS requirements.

Successful candidates must have a degree in a Biological Science or equivalent relevant experience. You must have demonstrable experience in the practical application of bacteriological techniques such as the preparation of media, culture and subculture of bacteria, identification of bacteria using traditional and biochemical methods, antibiotic sensitivity testing and other bacteriological methods requiring good aseptic technique. You must also have the ability to learn, develop and apply new scientific skills across diagnostic disciplines. An interest in the application and adaptation of established techniques to achieve rapid and reliable identification of pathogens. The ability to work within standard operating procedures or to written instruction, and evidence of working with a team to deliver objectives within set deadlines.

While not essential, it would be helpful if you have previous work skills in a diagnostic and/or quality assurance laboratory environment, a knowledge of and interest in fish and shellfish pathogens, are familiar with virology/histology/molecular biology techniques, have experience of diagnostic test development and of working to UKAS ISO 17025/ Accreditation standards.

This is a permanent and pensionable appointment. Candidates with a disability who meet the minimum criteria for the appointment will be invited to the assessment centre.

Please read the Person Specification and General Information for Applicants and complete the online application form. The closing date for receipt of applications is 10 February 2010 at midnight.

We welcome applications from all suitably qualified people and aim to employ a diverse workforce which reflects the people of Scotland. This is a permanent and pensionable appointment. Candidates with a disability who meet the minimum criteria for the appointment will be invited to Interview.

If you experience any difficulties accessing the Work for Scotland website, please contact Scottish Government HR Central Resourcing Unit on 0131 244 3984, or alternatively, write to The Scottish Government, Central Resourcing Unit, S1 Spur, Saughton House, Broomhouse Drive, Edinburgh EH11 3XD.
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**RESOURCES**

**NEWS**

## CORNELL EXPERTS: VIRUS FLOWS INTO LAKE SUPERIOR

*Viral Hemorrhagic Septicemia virus found in Superior's fish*

ITHACA, N.Y. — Recently completed testing has identified the presence of Viral Hemorrhagic Septicemia Virus (VHSV) in fish that were taken from Lake Superior. The findings were made by collaborating laboratories at Cornell University's College of Veterinary Medicine and the USGS Western Fisheries Research Center, Seattle, Washington.  The Cornell investigators involved in survey design, collections and evaluation of the samples using a highly sensitive technique, referred to as qRT-PCR, are graduate student Emily Cornwell and collaborating graduate student Geof Eckerlin, Drs. Mark Bain, Paul R. Bowser and James W. Casey. Investigators at USGS Western Fisheries Research Center, Seattle, Washington, who confirmed the presence of the virus by testing of the same samples with a different method and for genetic typing of the virus are Drs. Gael Kurath and James R Winton.

Cornell investigators tested 874 fish collected from seven sites in Lake Superior.  The 2009 work was funded with grants from the Cornell Agriculture Experiment Station (USDA Hatch funds) and USDA APHIS. Fish from four of seven sites; Paradise, MI; Skanee, MI; St. Louis, Bay, WI and Superior Bay, WI were found positive.  To confirm the identification of VHSV by Cornell researchers who detected the presence of the viral N gene, tissue samples from the Paradise, MI site in Lake Superior were sent to the USGS Western Fisheries Research Center, in Seattle, WA, where an attempt to independently detect a different VHSV gene, the viral G gene, was successful. Tissues have also been sent to the to the USDA APHIS Veterinary Service's National Veterinary Service Laboratories, in Ames, IA.  The 2009 work was an extension of 2007 and 2008 efforts with support from the Great Lakes Protection Fund in which Cornell investigators developed a surveillance protocol to detect VHSV in water and fish in Lake Ontario, Erie and Huron.

"The USDA APHIS Veterinary Service's National Veterinary Service Laboratories continues to test samples collected by Cornell University, but has not yet confirmed the findings," said Madelaine Fletcher, USDA/APHIS Public Affairs Specialist. "While USDA APHIS considers these findings evidence that VHS virus has been found in samples taken from wild fish populations in Lake Superior, the gold standard of virus isolation in cell culture has not been met, and thus we have not confirmed the findings. These findings will not lead to regulatory actions by USDA APHIS since the States bordering Lake Superior are already under the provisions of the VHS Federal Order, and these findings were

from fish species already known to be susceptible to VHS. USDA APHIS recommends that susceptible wild fish populations from Lake Superior be considered in the same risk category for harboring VHS virus as those fish from the other Great Lakes."

VHSV is a significant emerging fish pathogen in the Great Lakes and neighboring waterways that, according to Dr. Paul Bowser, Professor of Aquatic Animal Medicine at Cornell, has reached epidemic proportions. VHSV causes hemorrhage and anemia (as well as other varied disease signs) in fish, has been identified in 28 freshwater fish species, and poses a potential threat to New York's sport-fishing industry, which has been estimated by the US Census Bureau to contribute $1.4 billion annually to the economy of New York State.

"People come from all over the eastern Unites States to fish the Great Lakes," said Bowser, noting that the virus has also been found in a few inland waters, including lakes, streams, and a family-owned earthen pond. "The economy of many of these areas ebbs and flows based on the season and the perceived value of outdoor recreational opportunities. The value of these opportunities is dependent on how successful we are at managing the health of wild fish. On a world-wide basis, VHSV is considered one of the most serious pathogens of fish, because it kills so many fish, is not treatable, and infects a broad range of fish species."

The presence of VHSV in the Great Lakes basin was first reported in fish from Lake St. Clair, MI, and Lake Ontario, Canada, in 2005. Through the following years up to 2008, the virus had been documented in all of the Great Lakes with the exception of Lake Superior. In response to the identified VHSV invasion, USDA issued a federal order (USDA 2008) preventing transport of 28 species of susceptible fish within the Great Lakes watershed to limit the spread of this viral pathogen. Lake Superior was included in the federal order, even though no fish infected with the virus had been found and the Lake was thought to be disease-free. The possibility of spread of VHSV to Lake Superior was a valid concern due to the movement of both commercial ships and recreational boats from the lower Great Lakes – areas known to be VHSV positive.

So while no significant fish mortality events due to VHSV were observed in 2008 and 2009, the virus is still present in Great Lakes fish. "It is important to note that fish harboring VHSV sequences, showed no clinical signs of disease; essentially the infection was proceeding but no mortalities were observed," said Bowser. "This is important because it suggests that these infected fish may serve as a reservoir for the virus in the Great Lakes ecosystem. While we don't fully understand the reasons for the lack of recent mortality events, the potential presence or absence of concurrent stressors on the fish may be playing a role. Further, VHSV was isolated by cell culture in a few fish collected in 2008 where levels of VHSV sequences were high, attesting to the accuracy and sensitivity of current testing used at Cornell and the USGS Western Fisheries Research Center. In our 2009 work, VHSV sequences for two viral genes have been independently detected by two collaborating laboratories – Cornell and USGS. This strongly suggests that this virus has invaded Lake Superior."

SUBJECT LINE: CU Experts: VHSV found in Lake Superior

KEYWORDS: Cornell, veterinary, VHSV, Viral Hemorrhagic Septicemia, Bowser
COLLEGE: VET
WRITER: Paul Bowser
CONTACT: Stephanie Specchio, 253-3369 or email: sas6@cornell.edu

**HASTINGS INTRODUCES LEGISLATION ON WILDLIFE VETERINARY MEDICINE**
**See attached Wildlife and Zoological Veterinary Medicine Enhancement act.pdf**

**(Washington, DC)** Today, Congressman Alcee L. Hastings (D-Miramar) introduced the *Wildlife and Zoological Veterinary Medicine Enhancement Act*. The legislation will develop affordable and well qualified opportunities for individuals who are seeking to become wildlife and zoo veterinarians, spur job growth and promote robust public health policy. **(Please find attached a copy of the legislation)**

"Wildlife and zoo veterinarians are the primary source of essential health care for and management of wild animals in their natural habitat and in captivity. Not only do they preserve natural resources and animal lives, but they help protect human health by preventing, detecting, and responding to exotic and dangerous diseases," said Hastings.

In spite of a growing threat to public health posed by emerging infectious diseases as well as higher risks of large-scale outbreaks, the United States continues to face a shortage of positions for wildlife and zoo veterinarians. This shortage, combined with lower salaries, high educational debt, and insufficient numbers of practical trainings and formal educational programs specializing in wildlife and zoo veterinary medicine, has dissuaded students from studying and practicing wildlife and zoo veterinary medicine.

"My bill will create new positions for wildlife and zoo veterinarians and limit the amount of educational debt for students while providing incentives to study and practice wildlife and zoo veterinary medicine. My legislation will also advance education by helping schools develop pilot curricula specializing in wildlife and zoo veterinary medicine and by expanding the number of practical training programs available to students," added Hastings.

"We applaud the leadership and vision of Congressman Hastings for introducing this meaningful legislation which enhances the highly skilled wildlife and zoo veterinary workforce and also creates additional green jobs critically needed at this time," said John F. Calvelli, Executive Vice President of Public Affairs, Wildlife Conservation Society.

"The American Veterinary Medical Association commends Congressman Hastings and his staff for championing legislation that could revolutionize the practice of wildlife and zoological medicine. The Wildlife and Zoological

Veterinary Medicine Enhancement Act of 2010 insures that our country will have a sufficient number of veterinarians trained to deal with zoo and wildlife populations," further noted Mark T. Lutschaunig, Director of the Governmental Relations Division, American Veterinary Medical Association.

**Joining Hastings as original co-sponsors of the legislation include**: Representatives Donna Christensen, Raul Grijalva, Madeleine Bordallo and Henry Brown Jr.

**Endorsing organizations**: the Wildlife Conservation Society, the American Veterinary Medical Association, the American Association of Wildlife Veterinarians, the National Association of Federal Veterinarians, and the Association of Zoos and Aquariums.

*Congressman Alcee L. Hastings is Vice Chairman of the House Permanent Select Committee on Intelligence, a senior member of the House Rules Committee, and Co-Chairman of the U.S. Helsinki Commission.*

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**INDUSTRY NEWS**