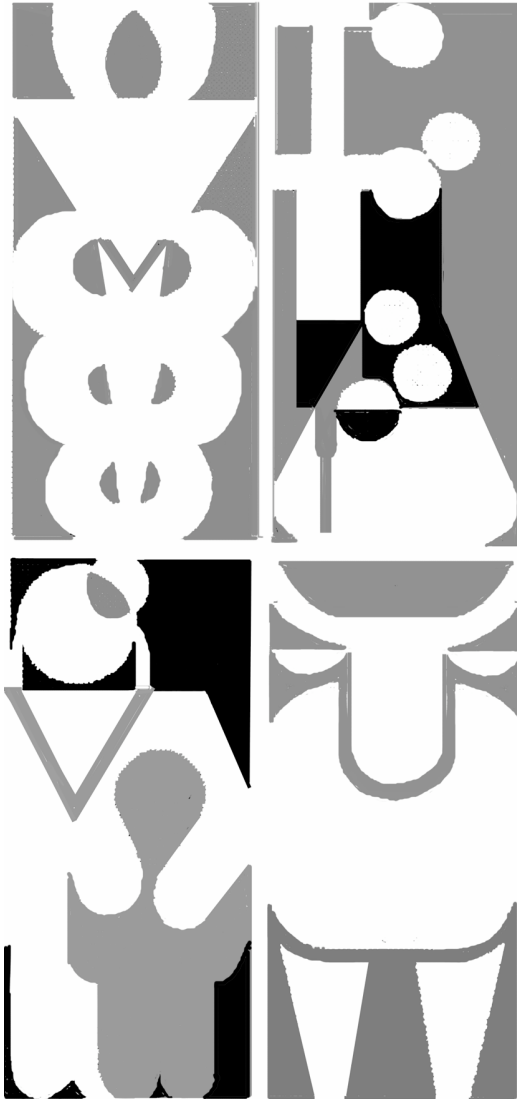


# NEWSLETTER



## Association for Veterinary Epidemiology and Preventive Medicine

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AVEPM is committed to developing and fostering the academic base for veterinary epidemiology and preventive medicine

Visit the AVEPM Web site at...

<http://www.cvm.uiuc.edu/avepm/>

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**Important:** Please take a moment to look at your mailing label on the envelope. The number (e.g. 03) in the lower right corner of the mailing label is the last year for which a dues payment has been recorded. Membership dues are \$20 US annually and are payable to AVEPM on January 1 of each year. If, for example, your dues payment year is indicated to be 02, then to become current you should remit two years dues or \$40. The AVEPM Constitution and By-Laws require that members two years in arrears in payment of dues shall be dropped from membership (Article VI)

# ASSOCIATION NEWS

## AVEPM Board Meeting Minutes

Congress Hotel

7:00 a.m. November 15, 2004

Board members present were, President Laura Hungerford, Secretary-Treasurer James G. Thorne, Mo Salman, Paul Morley, Tom Wittum, Ronald D. Smith, Morgan Scott.

Minutes of 2003 annual meeting and board meeting were approved as printed in the newsletter.

### Reports:

A financial report from January 1, 2004 to November 3, 2004 is attached to the Annual Meeting minutes below.

ISVEE – Mo Salman. Scheduled for Australia in August 2006, the location is being decided. There has been a transfer of \$10,000 from ISVEE10 to ISVEE11. They are seeking additional funding. Mo Salman and Dave Hird applied for and got a CSRS grant for ISVEE11. Hopefully there can be an additional grant submitted and received.

Education – Mo Salman. Five courses in 2004 which included Basic Epidemiology for VMOs, AHTs, one in Spanish for International veterinarians and one on Risk Analysis. Anticipate that material will be placed on the website and it is hoped that said material can be used for graduate credit.

Awards – Tom Wittum. There are about 30 graduate students presenting in 4 sections (Epidemiology, Food Safety, Biosafety and Security, and Gastroenteriology). He suggested that we co-sponsor five (5) awards with American College of Preventive Medicine. AVEPM will fund the equivalent of three (3) awards and ACVPM two (2) at \$200 per award. Motion made and seconded that AVEPM do this. Motion carried. A short biographical sketch of each awardee will be placed in the newsletter.

Schwabe Symposium – Paul Morley. There were about 65 attendees at the symposium on Sunday afternoon, November 14, 2004. Bayer has contributed \$5,000. He anticipates that expenses will be covered by the \$5,000 stipend. There are three (3) nominees for the 2005 symposium. AVEPM is in the process of purchasing 10 statues for presentation at future symposia. These will cost about \$700 each. Paul Morley is going on sabbatical to Canada for a year. Thus, the President and President-elect will need to appoint an interim Symposium chairperson.

AVEPM Brochure: We need to update the association brochure. Please send an old one to Laura Hungerford.

Paul Morley moved that the association pay hotel expenses for Secretary Jim Thorne. Motion carried.

It was noted that we need an updated email list.

Respectfully submitted

James G. Thorne, Sec-Treas AVEPM

## AVEPM Annual Meeting Minutes

Congress Hotel, Florentine Room

Monday, November 15, 2004

11:30 a.m.

President Laura Hungerford called meeting to order and introduced association officers.

Attendance is attached.

A motion was made and seconded that the 2003 annual meeting minutes be accepted as printed in the newsletter.

### Reports:

ISVEE – Mo Salman

ISVEE11 will be in Australia in August 2006.

ISVEE10 has provided \$10,000 to ISVEE11. They are seeking additional funding. A keynote speaker has been selected. Two members from the USA (Tim Carpenter and Paul Morley) are on the International Committee.

Education – CE – Basic epidemiology courses were presented to APHIS veterinarians and AHT's, a similar course was presented in Spanish to International Veterinarians and a risk analysis course was presented to APHIS veterinarians.

Awards – Tom Wittum. There are about 30 graduate students presenting in 4 sections (Epidemiology, Food Safety, Biosafety and Security, and Gastroenteriology). He suggested that we co-sponsor five (5) awards with American College of Preventive Medicine. AVEPM will fund the equivalent of three (3) awards and ACVPM two (2) at \$200 per award.

Schwabe Symposium – Paul Morley. There were about 65 attendees at the symposium on Sunday afternoon, November 14, 2004. Bayer has contributed \$5,000. He anticipates that expenses will be covered by the \$5,000 stipend. There are three (3) nominees for the 2005 symposium. Three nominations have been received for the 2005 award.

Jim Thorne gave the treasurer's report for January 1, 2004 to November 3, 2004, which is attached

### New Business:

President Hungerford solicited names for President-Elect and Board member. Paul Morley was nominated for President-Elect and Randy Singer was nominated for Board Member. Motion was made and seconded that the nominations cease. Motion carried. Their names will be placed on a ballot for distribution in the fall.

AVEPM has been approached by personnel from Preventive Veterinary Medicine Journal. They will offer

(if all members subscribe) the journal for \$25.00. AVEPM would be an official sponsor to Preventive Veterinary Medicine Journal. This would give all members electronic (since 1995) access to the PVM. Discussion ensued. It depends upon access to electronic service and local library, international membership would benefit. However, those not in academia would find it more difficult to avail themselves of this benefit. Elsevier would send one invoice to the Sec-Treas. Sec-Treas would tell Elsevier who were members. A straw vote to indicate interest was unanimous. It was suggested that this proposal be sent out to the membership.

Mo Salman suggested that we create a linkage to the Mexican Society for collaboration.

CRWAD – Randy Singer reported that the Epidemiology section at CRWAD that was filled with abstracts. Extras were assigned to other groups before abstract were sent to the Epidemiology section leader for review. Students were distributed over subject groups. It was suggested that there be better coordination among the sections and section leaders with regard to abstract

selection, scheduling of presentations and judging of graduate student presentations.

It was moved and seconded that Ian take forward this idea to the CRWAD Executive Board. Motion carried.

Meeting adjourned at 12:15 p.m.\

Respectfully submitted

James G. Thorne, Sec-Treas AVEPM

Attendance at 2004 AVEPM, Inc annual meeting at Congress Hotel, Chicago, Illinois on November 15, 2004:

Ronald D. Smith, Tom Wittum, Ian Gardner, Paul Morley, Mo Salman, Mike Sanderson, Yvette Johnson, John B. Kaneene, Carla Huston, Roger Parker, Claudia Munoz-Zanzi, Margaret Khaitea, John C. Gordon, Fehuiayo Suaro (Mexico), Jay Levine, Vic Spain, Paivi Rajala-Schulte, Alex Thompson, Dave Miller, Scott McEwen, Robert Wills, Morgan Scott, Tim Carpenter, Randy Singer, James G. Thorne, Laura Hungerford

<b>AVEPM</b>	
Balance January 1, 2004	\$ 937.31
<b>Income</b>	
Dues Paid	1,060.00
Interest	151.29
Bayer	5,000.00
Epidemiology training USDA	120,999.00
Balance from ATVPHPM	13,891.12
Total Income	\$ 141,101.41
<b>Expenses</b>	
Epidemiology Training for USDA	
USDA Expenses	23,469.00
Grant - CSU Foundation	37,000.00
Honoraria for instruction	48,250.00
Legal Fees for Incorporation & Bylaws	1,162.50
US Treasury - 501(c)(3) application	500.00
Schwabe Award	642.02
NCPSP Dues	500.00
NCPSP Meeting Expenses	655.92
Postage	41.88
Total Expenses	\$ 112,221.32
Balance November 3, 2004	\$ 29,817.40

## From the Education Committee

In 2004, the continuing education committee of the Association for Veterinary Epidemiology and Preventive Medicine co-sponsored four Basic Epidemiology courses for the USDA as part of their veterinary services career program. Nineteen Animal Health Technicians participated in a one-week course in March. A total of 74 Veterinary Medical Officers, including several international participants gathered in Fort Collins, CO and attended either a two-week course in March or June or a one-week course in August. In August of 2004, a new initiative, which involved the creation of on-line course materials under a contract from USDA, was implemented. A web-based Basic Epidemiology course was created as the first phase of a two-phase hybrid training course. Course participants completed the web-based portion to prepare for a one-week traditional face-to-face training program. The Basic Epidemiology courses stress the application of epidemiological principles to solve population-based animal health problems.

An additional educational course was held in Fort Collins, CO in August, 2004. A basic veterinary epidemiology and risk analysis course was taught in Spanish for 30 participants from Spanish-speaking countries in Central and South America. Representatives from 17 countries attended the course.

Mo Salman

## AVEPM/ACVPM Graduate Student Awards at CRWAD 2004

From: Tom Wittum [Wittum.1@osu.edu](mailto:Wittum.1@osu.edu)

AVEPM/ACVPM awards for best graduate student presentations in Veterinary Preventive Medicine at CRWAD 2004:

*Audrey Torres*

The Ohio State University  
Utility of DHI records and clinical mastitis history in identifying subclinical mastitis infections at dry-off

*Aurora Villarroel*

Colorado State University  
Comparison of single and multiple isolate sampling methods for the evaluation of antimicrobial resistance of generic E coli in dairy cattle

*AE Fine*

Michigan State University  
Epidemiology of brucellosis in livestock and humans in Mongolia

*Karen Dazo*

Mississippi State University  
Comparison of the occurrence of Salmonella from crops, ceca, and whole carcass rinses of broilers

*David Pearl*

University of Guelph  
Enhancing the surveillance of outbreaks of E. coli O157 using spatial scan statistics and PFGE

## How to Contact AVEPM

Applications for membership, accompanied by a check for \$20 payable to the AVEPM, should be sent to:

Dr. James Thorne, Secretary/Treasurer, AVEPM  
3310 Cheavens Rd  
Columbia, MO 65201-9383

Phone: 573/443-0157  
FAX: 573/884-5050  
E-mail: [atvphpm@tranquility.net](mailto:atvphpm@tranquility.net)

Membership application forms are available online at:

<http://www.cvm.uiuc.edu/avepm/>

Newsletter items can be sent to:

Dr. Ronald D. Smith, Newsletter Editor, AVEPM UI  
College of Veterinary Medicine  
2001 South Lincoln Ave  
Urbana, IL 61802.

Phone: 217/333-3290  
FAX: 217/244-7421  
E-mail: [rd-smith@uiuc.edu](mailto:rd-smith@uiuc.edu)

Current and past issues of the AVEPM Newsletter are also available online at:

<http://www.cvm.uiuc.edu/avepm/>

# NEWS & COMMENTARY

## International Veterinary Public Health Consortium (IVPHC)

I would like to announce the formation of the International Veterinary Public Health Consortium (IVPHC). This platform will be hosted by Pathobiologics International, the consulting arm of the Humanitarian Resource Institute and the Humanitarian University Consortium. At this time, I would like to open this resource to members of the academic community worldwide to provide an opportunity for participation, collaboration, and presentation of topics for (1) advocacy initiatives, (2) country by country analysis in support of optimization of the veterinary public health infrastructure, and (3) funding via communications initiatives with corporate, inter-governmental, non-governmental, and United Nations organizations in approximately 195 countries. Topics and reference materials will be posted on the International Veterinary Public Health Consortium website: <http://www.pathobiologics.org/ivphc>.

This international initiative will facilitate real-time rapid response to biodefense and emerging infectious disease issues, and, will have the capacity to activate the Pathobiologics Collaborating Center (PCC) that serves as a password-protected platform for information deemed sensitive for public discussion. The PCC concept was developed at the suggestion of Martin Hugh-Jones, Director of the WHO Collaborating Center for Remote Sensing and Geographic Information Systems for Public Health, to facilitate academic discussions that are beyond the scope of ProMED-mail, a program of the International Society for Infectious Diseases. Discussion topics and communications can be directed to: [s.m.apatow@pathobiologics.org](mailto:s.m.apatow@pathobiologics.org) (Note "IVPHC" in the subject line).

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<http://www.humanitarian.net>

## FDA Evaluates Test Kits to Detect Animal Proteins in Animal Feed

November 4, 2004  
FDA, Center for Veterinary Medicine Media Release  
<http://www.fda.gov/cvm/index/updates/BSEkitup.htm>

Scientists in FDA's Center for Veterinary Medicine have evaluated two commercial test kits that are designed to detect animal proteins in animal feed. A January 26, 2004, HHS Press Release entitled „Expanded "Mad Cow" Safeguards Announced to Strengthen Existing Firewalls Against BSE Transmission%, announced that FDA would continue to support the development and evaluation of feed tests for detection of materials prohibited for use in ruminant feeds.

The discovery of a Canadian-born cow with Bovine Spongiform Encephalopathy (BSE) in the State of Washington in December 2003 raised awareness of the need for increased screening of animal feed to ensure the absence of prohibited animal proteins in ruminant feed. Scientific evidence has demonstrated a clear link between the practice of feeding ruminants, such as cattle, the rendered remains of other ruminants with the spread and dissemination of BSE.

Since the Food and Drug Administration does not have pre-market approval over veterinary diagnostic devices such as feed test kits for detection of prohibited animal protein, the Office of Research in FDA's Center for Veterinary Medicine (CVM) initiated a study to evaluate the performance characteristics of several commercially available test kits. The study included two tests that used lateral flow, or „dip-stick% diagnostic devices designed for general use, and two that were designed for use by laboratory personnel. This CVM UPDATE presents the results of the FDA's completed evaluation of the two lateral flow test kits; Neogen Corporation's „Reveal for Ruminant in Feed% test and Strategic Diagnostics Inc.'s (SDI) Feedchek test.

CVM researchers found that Neogen's test was 100% selective when conducted by multiple analysts. Therefore, this test never gave a false positive result. The test was able to detect animal protein down to only 1%, which was the level stated in the label guarantee.

CVM researchers evaluated Strategic Diagnostics Inc.'s test and observed variable selectivity that seemed to be related to difficulty in reading the test. The test exhibited 62% selectivity when conducted by one analyst and 97% selectivity when conducted by another analyst. Therefore, the test reported false positives in 3% and up to 38% of the samples. The test was able to detect animal protein to the level of 0.1%.

FDA also identified critical issues with reading the results for both test kits. The color development begins

when the test strips are placed in solutions extracted from the feed sample. Neogen's test strips were accurate only when they were read 15 minutes after color development had begun. SDI's test strips were accurate between 3 and 5 minutes after color development had begun. Reading the SDI test longer than 5 minutes after color development has been initiated can potentially result in false positive reactions, as test strips turn positive after 5 minutes. Therefore, when using these test kits, it is important to take the readings at the appropriate time intervals.

These critical pieces of information were not contained in the package inserts of the test kits FDA evaluated, and could potentially lead to incorrect interpretation of the test strips, resulting in a false negative determination if read too soon (both Neogen and SDI), or a false positive determination with the SDI strips if read after 5 minutes. The Neogen Corporation has already incorporated this change (reading the strip 15 minutes after initiation of color development) into their package insert.

These test kits can be an important tool for surveillance and quality assurance although they appear to be less sensitive than feed microscopy and polymerase chain reaction (PCR) techniques that are capable of detecting at least 0.1% bovine meat and bone meal.

### **Feedlot Study Indicates No Major Links to Antimicrobial Resistance in Humans**

November 25, 2004  
Meristem Land and Science Media Release  
[www.meristem.com](http://www.meristem.com)

Calgary, Alta.: The use of antimicrobial drugs in Canadian cattle production is not currently a major contributor to the development of resistant bacteria that threaten human health.

That's the indication of a much-anticipated, five-year study investigating antimicrobial resistance in Alberta feedlot cattle, led by the University of Calgary and Agriculture and Agri-Food Canada.

"The most significant resistance concerns that we went into the project looking for, turned out not to be an issue," says study leader Dr. Ron Read of the University of Calgary. Most notably, bacteria with resistance to vancomycin and methicillin, the top human health concerns speculatively linked to cattle production, were not found in Alberta feedlot cattle. Salmonella, with multiple forms of resistance, widely thought to be in outbreak situations in food animals, were also not found. "Our study was helpful in closing the book on a number of resistance issues," says Read.

Only one form of resistance of potential concern for human medicine was found - E. coli strains with resistance to cephalosporins. However, the prevalence of this type of resistance in humans is extremely low and researchers consider the potential for relevant transfer from cattle to humans unlikely at this point. "We're in a situation where we've identified something that needs to be monitored," says Read. "We're fortunate that we have time to keep an eye on this situation and deal with it, because we're not seeing this resistance occurring in humans."

More on the study and Read's views are available in a new article on the Meristem Land and Science Web site, [www.meristem.com](http://www.meristem.com). Land and Science is a service featuring information on the sustainability of agriculture, food production and the environment. It is presented by Meristem Information Resources Ltd., in co-operation with partners in agriculture, food, environment and life sciences.

The current edition of Land and Science also includes excerpts from Read's responses at a press conference held following his presentation on the antimicrobial resistance study, at the National Beef Science Seminar in Calgary, Nov. 16.

Over the past decade, a disturbing trend worldwide has been the emergence of microbe populations that are resistant to important antimicrobial agents used in veterinary and human medicine. "It's a very serious issue," says Read, associate professor, Medicine and Microbiology and Infectious Diseases, University of Calgary, Faculty of Medicine. "Obviously, as more agents are rendered less effective due to increased populations of antimicrobial resistant microbes, humans and animals that depend on those agents to battle disease become more vulnerable."

The more widely and frequently an antimicrobial is used, the greater the risk of antimicrobial resistance developing. This is because antimicrobial use places selection pressure on target microbe populations to evolve survival mechanisms.

Antimicrobial resistance that threatens human health is primarily associated with antimicrobial use in human medicine and the role of hospitals as reservoirs of resistant organisms. However, there has been widespread concern that antimicrobial use in livestock production is also a contributing factor, with resistant microbes transferred to humans through direct contact, the environment - including water channels - and through food products.

The new study was the most comprehensive of its kind and the first to examine Canadian cattle. The one potential issue identified, cephalosporin resistance, was a

surprise finding and its significance is unknown, says Read. "The most important thing we can do is to continue to keep an eye on this phenomenon."

Health Canada is currently establishing a surveillance system for antimicrobial resistant organisms in agriculture. Read and colleagues have proposed that the resistant microbes identified in their study be included in this monitoring program. Production management changes may also be warranted, say the researchers.

### **Physicians Recommend Screening for Toxoplasmosis for All Pregnant Women, Newborns**

February 8, 2005  
University of Chicago Medical Center

Physicians found that signs, symptoms and identifiable risk factors are absent in more than half of the mothers of infants with congenital toxoplasmosis in a national study of children with this disease.

More than half of the pregnant women who were at risk for acute infection with *Toxoplasma gondii* could not be identified by history or routine examination. Therefore, the physicians recommend that systematic screening for acute acquired toxoplasmosis for all pregnant women in the United States during prenatal visits, as well as screening for congenital toxoplasmosis in all newborns, become standard medical practice. The group also emphasizes that confirmation of test results in reference laboratories and informed counseling are essential parts of the process.

An infection caused by the parasite *Toxoplasma gondii*, toxoplasmosis can be harmful and potentially lethal to the children of women who acquire the infection during pregnancy.

In the February issue of the *The American Journal of Obstetrics and Gynecology*, the researchers report that current clinical practice -- taking a careful history and performing a physical examination -- would identify only half of the at-risk mothers who have acquired the infection during pregnancy and have had infants with congenital toxoplasmosis. Screening through blood tests could have identified the rest, the researchers said.

"We have medicines that can help if we catch the infection and improve outcomes if we detect the infection early, but by only taking a careful history and examination we are missing many pregnant women and their infants who may benefit from treatment," said study co-author Rima McLeod, M.D., professor of ophthalmology and medical director of the Toxoplasmosis Center at the University of Chicago.

According to the Centers for Disease Control and Prevention, more than 60 million people in the United States probably carry the *T. gondii* parasite, but few have symptoms. The immune system usually keeps the parasite from causing illness. However, pregnant women should be cautious. If the infection is acquired for the first time while a woman is pregnant, it can cause serious problems. Infection of the fetus may cause severe eye and brain damage, and may result in crippling diseases in the newborn or later in life.

"Early detection and treatment of the *T. gondii* infection in the mother, fetus and infant can prevent or reduce the risks of ophthalmologic and/or neurologic damage," said Kenneth Boyer, M.D., chairman of pediatrics at Rush University Medical Center and a co-author of the study.

*T. gondii* infects humans through three principal routes: eating undercooked, infected meat; ingesting *T. gondii* oocysts that cats pass in their feces, with exposure occurring through cat litter or soil (examples include gardening, eating unwashed fruits and vegetables, water contamination); and a newly infected pregnant woman passing the infection to her fetus.

The physicians questioned the mothers of 131 children with confirmed congenital toxoplasmosis who were referred to the National Collaborative Treatment Trial. This is a study sponsored by the National Institutes of Health and is based in Chicago, but involves children throughout the United States.

The physicians gathered demographic data, including place of residence, age, race and socioeconomic status, and information about the mothers' exposures to undercooked meats, cat litter, raw eggs and more. The physicians also asked the mothers if they experienced any illnesses, such as flulike symptoms including headaches, night sweats and swollen lymph nodes, which can be symptoms and signs of this infection in older children and adults.

Only 8 percent of the mothers in the study were screened by serologic testing for toxoplasmosis during pregnancy. The physicians said the finding is consistent with the infrequent screening of pregnant women in the United States for this infection.

The group found that 52 percent of mothers couldn't recall an illness of any kind during pregnancy or identify risk factors, including ingestion of undercooked meats and or exposure to cat litter.

The physicians also found that demographics play no role in the occurrence of infections. "Acute toxoplasmosis and transmission to the fetus can affect individuals of any background and socioeconomic status," McLeod said.



In France and Austria, education about toxoplasmosis and screening for *T. gondii* is part of routine obstetrical care. Infection rates have been reduced by about 50 percent as a result of education. But this shows that other measures, such as blood tests during each month of pregnancy, are necessary so that doctors can identify the infection early. Treatment of the mother may help prevent the harmful consequences of the infection in the fetus.

Although most states require screening for a number of genetic and metabolic diseases in the newborn, including phenylketonuria, congenital hypothyroidism and congenital adrenal hyperplasia in the newborn, each of these genetic diseases is less common than toxoplasmosis. But there is no systematic program for screening for toxoplasmosis during pregnancy in the United States.

More than 10 years ago, Jack Remington, a co-author of the study and a professor of medicine at Stanford University School of Medicine and Marcus Krupp research chair and chairman of the department of immunology and infectious diseases at the Research Institute, Palo Alto Medical Foundation, wrote "the time has come" to better address the problem of this significant and treatable cause of loss of sight, hearing and cognition. This study indicates again that to detect this infection so it can be treated, systematic obstetrical and newborn screening for toxoplasmosis are needed. The authors suggest that this is long overdue in the United States.

"Clearly, we need to be doing more than we currently are doing to prevent this congenital infection and adverse consequences of the infection in the fetus and infant," McLeod said. "Education is important,

## INTERNET RESOURCES

### **NetEpi - Free, Open Source, Network-Enabled Tools for Epidemiology and Public Health Practice**

Developmental versions of some tools for population health epidemiology and public health are now available under a free, open source software license - see <http://www.netepi.org>

Although these tools were designed primarily for human population health purposes, they may have utility for veterinary epidemiology. We would be pleased to collaborate with any veterinary epidemiologists who might like to adapt the tools to their needs. I suspect that the NetEpi Analysis application is directly applicable to veterinary use - and we would be happy to incorporate publicly available veterinary example datasets in future releases, if such things are available.

The current development team (comprising two members: Andrew McNamara and myself) will be working on NetEpi fairly intensively over the first half of 2005, with a view to a "Version 1.0" release of the tools by mid-year. We would be very happy to hear from anyone wishing to contribute to development in any way, including assistance with informal and/or formal testing of each new version.

### **Pooled Prevalence Calculator Available**

AusVet's Evan Sergeant has now completed the development of an epidemiological calculator for estimating disease prevalence from testing of pooled

samples. Development of the internet-based calculator was funded by the <http://www.abcrc.org.au> Australian Biosecurity Cooperative Research Centre for Emerging Infectious Disease and it is now available on-line at <http://www.ausvet.com.au/pprev/> <http://www.ausvet.com.au/pprev/>.

Pooled (or group) testing is a testing strategy where samples from a number of individuals are aggregated into a single sample (or pool) and multiple such pools are then tested for the disease or agent of interest. Pooling of samples for testing provides one means of substantially reducing testing costs, without necessarily sacrificing precision of resulting prevalence or confidence interval estimates. Pooled testing for prevalence estimation is particularly useful where disease prevalence is likely to be low and where test-costs are high, relative to sample-collection costs.

Statistical techniques for estimating disease prevalence from testing of pooled samples have been developed and published in the scientific literature, but are computationally complex and therefore not widely used. This calculator provides a user-friendly interface for the implementation of a number of methods for estimating prevalence, assuming fixed or variable pool size and assuming either perfect tests or tests of imperfect and uncertain sensitivity and/or specificity. A Bayesian method is also included to allow incorporation of prior knowledge of the likely prevalence and of test performance. The calculator also includes options for estimating the required pool size and number of pools to be tested to achieve a desired level of confidence and precision when designing prevalence surveys and for

simulated sampling to evaluate precision and potential bias of alternative pooling strategies.

The Pooled Prevalence Calculator provides an invaluable resource for researchers or epidemiologists undertaking disease surveillance involving prevalence estimation at the individual level (human, animal, aquatic animal, insects or plants) using pooled samples. The system also includes a comprehensive User Guide, Glossary and example analyses based on Hendra virus in fruit bats.

Evan Sergeant

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## MEETINGS, WORKSHOPS & COURSES

See the AVEPM Web site at <http://www.cvm.uiuc.edu/avepm/> for details and the most current listings.

### Conference Report: BSE Prevention in North America

USAHA News Flash - BSE Prevention in North America Conference

On January 27, 2005, a BSE Prevention in North America conference was held in Washington, D.C. The conference was sponsored by the American Feed Industry Association, American Meat Institute Foundation, Canadian Cattlemen's Association, Canadian Meat Council, Livestock Exporters Association, National Cattlemen's Beef Association, National Grain and Feed Association, National Meat Association, National Milk Producers Federation, and the National Renderers Association.

The meeting was well attended and the agenda packed full of experts in the BSE and risk analysis field. The materials and presentations from the conference are available at:

<http://www.meatami.com/BSE/BSEBriefing.htm>

Mr. Jim Hodges, President of the American Meat Institute Foundation, provided an extremely useful wrap-up to the Conference. Some of his points are included below. For detailed information, please see the above AMI link.

Every TSE is different - scrapie, CWD, BSE, CJD, etc. have similarities as well as distinct differences. New knowledge will arise in the future about these TSE's.

Feed controls are the single most effective preventive measure. The sources of BSE risk to North America were the U.K. imports prior to implementation of a ban on the importation of live cattle and other risk materials. Canada, has seen a "clustering" of cases,

associated with the grouping of renderers, feed mills and producers; this has limited the distribution of BSE

BSE cases are not unexpected but can't just be dismissed. Feed ban compliance remains high. The dilemma is what else can be done to reduce the time to total elimination and to reduce the number of new cases in the next 5+ years. Limited SRM removal reduces infectivity 85-90%

A large unknown factor is mis-feeding; this is the most influential variable but there is no reliable data on this.

Surveillance systems are robust, but subject to error; yet they are more than adequate to define what they set out to do.

Modeling to look at risk reduction strategies that may be implemented:

1. Some have no effect
2. Some have minimal effect
3. Removal of dead stock from the feed system has the greatest potential for risk reduction (Deads-83% of total infectivity load; Slaughter-17% of total infectivity load) - but not without cost and not without environmental impacts (possibly 2.5 billion pounds of material would require alternative disposal)
4. Models tell us the number of cases that would be reduced years out is a very low number

## POSITIONS

Space does not permit a listing of the many opportunities for graduate study and employment. Please visit the AVEPM Web site at <http://www.cvm.uiuc.edu/avepm/> for the most current listings.

## SUGGESTED READING

### **Carcass Disposal: A Comprehensive Review**

December 7, 2004  
Kansas State University National Agricultural  
Biosecurity Center

<http://fss.k-state.edu/research/books/carcassdisp.html>

The Kansas State University National Agricultural Biosecurity Center, along with collaborators at Purdue University and Texas A&M University, is pleased to announce the availability of "Carcass Disposal: A Comprehensive Review."

This 700+ page report provides a comprehensive summary of the scientific, technical, and social aspects of various carcass disposal technologies, and serves as an indispensable resource for officials tasked with planning for the safe and timely disposal of animal carcasses. The report includes comprehensive coverage of disposal technologies such as burial, incineration, composting, rendering, lactic acid fermentation, alkaline hydrolysis, anaerobic digestion, as well as novel and non-traditional disposal technologies. Also addressed are issues such as economic and cost considerations, environmental impacts, decontamination strategies, and others.

The full report can be accessed via the KSU Food Safety & Security website at <http://fss.k-state.edu/research/books/carcassdisp.html>.

Questions? Contact Dr. Abbey Nutsch, tel: 785-532-4549.

### **EpiLab News**

It is my pleasure to announce the first edition of the "EpiLab News". With this newsletter, we would like to inform the community about recent and upcoming research activities in the area of applied veterinary epidemiology, statistics and risk assessment at the International Research Centre for Veterinary Epidemiology in Denmark.

Please download your copy of the News from <http://www.dfvf.dk/Default.asp?ID=9406&Purge=True>

<http://www.dfvf.dk/Default.asp?ID=9406&Purge=True>

Enjoy reading and don't hesitate to contact the undersigned if you

wish any further information about our programmes.

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