**SETTLEMENT FUELS STUDIES:** One year after receiving $768,630.59 through the largest class action distribution in Canada, the Western College of Veterinary Medicine has put part of its settlement share into three vital animal health research investigations.

The class action, which stemmed from the alleged price-fixing of vitamins, was initiated on behalf of direct purchasers, indirect purchasers and consumers of vitamins and vitamin products several years ago.

In 2005, the courts of Ontario, British Columbia and Québec approved a $132-million settlement. In December 2006, the same courts decided to distribute the settlement money among charitable organizations, universities, research centres and various consumer associations and agencies.

Universities with veterinary medicine colleges were chosen to receive funds because of their connection to the agricultural sector – a major purchaser of vitamins or vitamin products. Based on legal guidelines, recipients must use the funding for activities related to vitamin products such as food and nutritional research and education.

In 2007, WCVM invited its faculty to apply for the new research funding. After a stringent review process, three research teams received $418,200 in grants for large-scale, multi-year projects:

• All-trans retinoic acid (ATRA)-induced silencing of activated inflammatory cells ($130,500 over three years): ATRA is a biologically active product of vitamin A metabolism that modulates inflammation. During the next three years, Dr. Baljit Singh and two graduate students in the Department of Veterinary Biomedical Sciences will explore ATRA's potential as a treatment for acute inflammation in dogs. The project involves a series of experiments using cell and molecular biology methods as well as quantitative real-time reverse transcriptase PCR – all technologies now available in WCVM's new research wing.

• Studying the role of microbial diversity in intestinal health through a swine gut model system ($175,700 over five years): The beneficial effects of new diet ingredients, pre-biotics and therapeutic interventions are thought to be the indirect result of altering the intestinal microbial community structure.

Dr. Janet Hill and her research group in the Department of Veterinary Microbiology will investigate the diversity and dynamics of intestinal microbial communities by focusing on a specific family of organisms (enterococci) in the pig intestine. Their work in describing and measuring the effects of development and diet composition on the genomic diversity of enterococci will help researchers realize the potential of using the structure of intestinal microbial communities to indicate the effectiveness of nutritional strategies.

• Epidemiological study of trace minerals' impact on reproductive performance in Saskatchewan beef cow-calf herds ($112,000 over two years): Copper deficiency has been implicated as a major cause of poor breeding outcomes on several Saskatchewan community pastures. However, no scientific data confirms that link, and there's very little information about the trace mineral status of cattle at the beginning of the breeding season.

In this study, Drs. Steve Hendrick, Cheryl Waldner, John Campbell and MSc student Dr. Leanne van de Weyer will test cows from community pastures across Saskatchewan to determine their trace mineral status before breeding and in the fall during pregnancy testing. The team will measure the impact of trace mineral deficiency on reproductive success – accounting for significant nutrition, infectious disease and environmental factors in the field. Findings will help researchers make future recommendations on trace mineral supplementation for western Canadian beef herds.

# Bench PRESS

**GRIZZLY BEAR RESEARCH CAPTURES AWARD:** WCVM graduate student **Dr. Johan Lindsjö** earned accolades for his research poster, "Evaluation of grizzly bear health in western Alberta," at the Wildlife Disease Association's 2007 conference. The annual conference took place in Estes Park, Colorado from August 12 to 17. Lindsjö, whose work is supervised by **Dr. Marc Cattet**, is a Master of Science student in WCVM's Department of Veterinary Pathology.

The WDA Student Poster Award acknowledges an outstanding student poster presentation detailing a wildlife disease or wildlife health research project that's presented at the WDA conference. For more details, visit *www.wildlifedisease.org/index.html*.

**AQUATIC TOXICITY WORKSHOP AWARDS:** In early October 2007, two U of S graduate students took home a couple of high-profile research awards from the 34th annual Aquatic Toxicity Workshop in Halifax, N.S. The national meeting, which took place from September 30 to October 3, attracted about 500 environmental researchers and graduate students from across the country.

• PhD student **Amber Tompsett** received the best student platform presentation for her research entitled, "Gene expression and histological structure as biomarkers of chemical exposure in Japanese medaka."

• MSc student **Eric Higley** received the best student poster presentation for his research entitled, "Differential effects of environmental chemicals and selected pharmaceuticals on aromatase activity."

**Dr. John Giesy**, professor in WCVM's Department of Veterinary Biomedical Sciences and the University of Saskatchewan's Canada Research Chair in Environmental Toxicology, is the graduate supervisor for both students.

**DISTINGUISHED RESEARCHER DOUBLE-HEADER:** For the second time in a year, a WCVM graduate received the University of Saskatchewan's Distinguished Researcher Award. The latest recipient was **Dr. Jane Alcorn**, an associate professor of pharmacy in the University of Saskatchewan College of Pharmacy and Nutrition who received the honour at the U of S Fall Convocation on October 27.

Alcorn received her Doctor of Veterinary Medicine degree at WCVM in 1994, then went on to complete a PhD in pharmaceutical sciences at at the University of Kentucky in 2002. She is now a gifted researcher and teacher in the field of pharmacokinetics (area of study that explores how medications and other bioactive materials work in the body).

**Dr. Gregg Adams**, a 1982 graduate of WCVM, received the university's Distinguished Researcher Award in June 2007. Adams is a professor and researcher in the veterinary college's Department of Veterinary Biomedical Sciences.

In honour of their Distinguished Researcher awards, both Alcorn and Adams presented public lectures in Saskatoon as part of Saskatchewan's annual Health Research Week in December 2007.

**SWINE RESEARCH FUNDING:** **Dr. John Harding**, an associate professor of swine production medicine at WCVM, has received $25,000 in research funding from Boehringer Ingelheim Vetmedica Inc. through the company's Porcine Circovirus Associated Diseases (PCVAD) Research Award program.

The WCVM researcher will use the money for a one-year study to determine whether immune capacity impacts porcine circovirus type 2 viral load and disease expression.

Through its research program, Boehringer Ingelheim also awarded $50,000 to two PCVAD studies at Iowa State University.

**PAPER RECEIVES "HIGHLY CITED" DESIGNATION:** A research paper written by U of S Canada Research Chair **Dr. John Giesy** has been named a "highly cited paper" by an international scientific analysis resource. According to Thomson Scientific (ISI) *Essential Science Indicators*, an article entitled "Global distribution of perfluorooctane sulfonate in wildlife" is in the top one per cent of the most-cited papers during the last 10 years.

The original article, whose authors include Giesy and Kurunthachalam Kannan, was published in a 2001 issue of *Environmental Science and Technology* [35(7), 1339-1342, 2001]. To determine the "highly cited" designation, citations are counted from all sources and are gathered from the year of publication through the current year.

Giesy, a professor in the Western College of Veterinary Medicine's Department of Veterinary Biomedical Sciences, is the university's Canada Research Chair in environmental toxicology who is part of the U of S Toxicology Centre.

**FUNDING BOOST FOR EQUINE RESEARCH:** The generosity of western Canadian horse owners has helped WCVM raise an additional $200,000 for equine health research during the first year of a unique matching gift incentive program.

Half of the funding — $100,000 — came from more than 100 individuals, organizations and companies whose contributions "triggered" a successful match from the fund raising incentive during its first 12 months of operation. The second $100,000 came from the Heather Ryan and L. David Dubé Foundation — the organization that initiated the matching gift incentive program in August 2006. The Foundation will provide up to $100,000 per year in matching funds for five years. That gives WCVM the chance to raise an additional $1 million for its equine health research activities by 2011. Dr. Norman Rawlings, WCVM's associate dean of research, especially commends the efforts of **Patricia and Mark Du Mont** — long-time supporters of the College's Equine Health Research Fund. In August, the couple from Aldergrove, B.C., donated more than $75,000 to ensure that WCVM maximized the fund raising incentive's annual "match."

**For more information about the matching gift incentive program, visit www.ehrf.usask.ca or contact Patti Tweed, WCVM's development officer (patti.tweed@usask.ca; 306-966-7450).**

**SUMMER SCIENTISTS:** Four presenters received $100 awards for their exceptional posters during WCVM's annual undergraduate research poster session on September 13 and 14:

- **Allison Murray** (supervised by Drs. Gary Wobeser and Catherine Soos): Assessing the prevalence of avian influenza virus and seroprevalence of West Nile virus in a breeding colony of Franklin's gulls at Eyebrow Lake, Sask.
- **Ashley Ziegler** (supervised by Dr. Norman Rawlings): The effects of immunization against GnRH on FSH and LH secretion and follicular wave dynamics in anestrous ewes.
- **Jamie Rothenburger** (supervised by Dr. John Campbell): Environmental sampling for *Clostridium difficile,* methicillin-resistant *Staphylococcus aureus,* and salmonella in Saskatchewan mixed animal veterinary clinics.
- **Matthew van Steelandt** (supervised by Dr. Gregg Adams): Does ovulation inducing factor in seminal plasma affect ovarian function in cattle?

## *Top* RESEARCHER

**Dr. Janet Hill** of the Western College of Veterinary Medicine was among the Top Researcher Award recipients at the Saskatchewan Health Research Foundation's annual Santé! Awards Dinner. Hill (above) accepted the award from Rob Norris, Saskatchewan's minister for Advanced Education, Employment and Labour on December 6 during the awards evening.

Hill, an assistant professor in the College's Department of Veterinary Microbiology, was the recipient of SHRF's Top New Investigator Establishment Grant (Biomedical) for her research efforts.

Hill is the third WCVM scientist to receive this province-wide annual award in the past three years. Drs. Ali Honoramooz and Lynn Weber of the College's Department of Veterinary Biomedical Sciences were the award's recipients in 2005 and 2006.

Hill will use her two-year, $80,000 SHRF grant to develop new diagnostic tools for detecting different species of *Campylobacter* and their sources. As a common contaminant of food and water, *Campylobacter* infection is a leading cause of gastrointestinal disease in people. Hill is investigating the role of animals – particularly pets – in spreading *Campylobacter* infection.