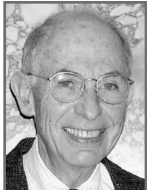


# Veterinary Research News

## The Veterinary Community

### 2003 CRWAD dedicated to Winter



Dr. Alexander J. Winter



Dr. Chris Howard

Five hundred people attended the 84th annual meeting of the Conference of Research Workers in Animal Diseases, Nov. 9-11, 2003, in Chicago. Research presentations spanned various areas, including biosecurity, epidemiology, immunology, viral and bacterial pathogenesis, and more. Some scientists delivered unsettling news to attendees.

Experiments indicate that porcine reproductive and respiratory syndrome virus can be transmitted through the air, and a new strain of bovine viral diarrhea virus may be emerging in the United States.

This latest CRWAD meeting was dedicated to Dr. Alexander J. Winter. He began his academic career in 1959 as an assistant professor of veterinary science at Pennsylvania State University. After his promotion to associate professor, he moved to the Cornell University New York State College of Veterinary Medicine in 1963 as associate professor of microbiology. Dr. Winter was named a professor in 1966. Colleagues and administrators at Cornell appointed him James Law Professor of Microbiology in 1992.

Initially, Dr. Winter's research focused on innate defenses of the uterus, including the roles of leukocytes and hormonal changes. In the early 1980s, his research shifted to host-pathogen interactions in bovine genital mycoplasmosis and brucellosis, later focusing in on brucellosis exclusively. Dr. Winter is a founding

diplomate of the American College of Veterinary Microbiologists and is recognized as an international authority on mechanisms of protective immunity in brucellosis.

Life membership in CRWAD was awarded to Drs. Gerald M. Buening, Columbia, Mo.; Harley W. Moon, Nevada, Iowa; Joachim F.L. Pohlenz, Hannover, Germany; William J. Tietz Jr., Bozeman, Mont.; and William C. Wagner, Ashtabula, Ohio.

The American Association of Veterinary Immunologists presented its Distinguished Veterinary Immunologist Award to Dr. Chris J. Howard, Compton, United Kingdom.

In 1971, Dr. Howard joined the Institute for Animal Health, the largest research institute in the United Kingdom dedicated to the study of infectious diseases in farm animals. In the early 1980s, he was instrumental in establishing a new research program on bovine immunology, aimed at exploiting the then recently developed monoclonal antibody technology to define the cells of the immune system. Dr. Howard was recently awarded two large grants from the British government for studies on the pathogenesis and immunology of bovine tuberculosis.

Winners of the 2003 CRWAD Graduate Student Abstract Presentation Awards were also honored during the meeting.

Recipients of the AAVI student

awards are as follows: *Oral, first place:* A. Paige Adams, Cornell University, for "Interspecies matings: Lack of T cell modulation at the fetal-maternal interface?" *Oral, second place:* S.A. Madsen, Michigan State University, for "Glucocorticoids in parturient serum activate steroid receptors to modulate apoptosis in bovine blood neutrophils." *Poster, first place:* Yan-jing Xiao, Oklahoma State University, for "Identification and characterization of a beta-defensin gene cluster in the chicken." *Poster, second place:* S.A. Valdelièvre, Pennsylvania State University, for "Oxidant stress induces MAPK and VEGF in BMEC."

Recipients of the American Association of Veterinary Parasitologists' student awards were as follows: *First place:* Jose Garcia-Garcia, Oklahoma State University, for "The role of glycosylation of major surface protein 1a in adhesion of *Anaplasma marginale* to tick cells." *Second place:* Norma Ramirez, The Ohio State University, for "Derivation of *Cryptosporidium hominis* clones in the gnotobiotic pig model." *Third place:* Consuela Almazán, Oklahoma State University, for "Expression and localization of antigens protective against *Ixodes scapularis* infestations."

Recipients of the NC-1007 Gastroenteric Diseases' student awards were as follows: *Oral:* M.K. Keel, University of Arizona, for "Ribotyping of *Clostridium difficile* from pigs and calves." *Poster:* R.P. Dassanayake, University of Nebraska-Lincoln, for "Identification of penicillin-binding proteins (PBPs) in membrane extracts of *Brachyspira pilosicoli*."

Recipients of the Association for Veterinary Epidemiology and Preventive Medicine's student awards were as follows: *Epidemiology and animal health economics*—C. Meadows, The Ohio State University, for "Economic

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value of opportunities for improvements in the reproductive performance of Ohio dairy herds"; and G.E. Moore, Purdue University, for "Proximity of wetlands as a risk factor for West Nile virus (WNV) encephalomyelitis in Indiana horses." *Food and environmental safety*—T. Luangtongkum, The Ohio State University, for "Prevalence and antimicrobial susceptibility patterns of *Campylobacter* spp. in conventional and organic poultry operations." C. P. Fossler, University of Minnesota, for "Evaluation of sampling strategies for detection of *Salmonella* on dairy farms in the Midwest and Northeast U.S." *Poster*: Kelli M. Almes, Kansas State University, for "Diversity of *Escherichia coli* O157 within bovine fecal samples."

Recipients of the American College of Veterinary Microbiologists' student awards were as follows: G. Vanier, University of Montreal, for "Invasion of porcine brain microvascular endothelial cells by *Streptococcus suis* serotype 2." E.L. Strait, Iowa State University, for "Analysis of *Mycoplasma hyopneumoniae* field isolates." Padma Billam, Virginia Polytechnic Institute and State University, for "Systematic pathogenesis and replication of a strain of the hepatitis E virus (HEV) in its natural host: avian HEV infections in specific-pathogen-free adult chickens." *Poster*: Ashutosh Verma, University of Kentucky, for "Intraocular expression of proteins of *Leptospira interrogans* in uveitic horses."

The ACVM presented the Don Kahn Award to Robert J. Tibbetts, Purdue University, for "Insertional mutation of *marA* vitiates inducible multiple antimicrobial resistance in *Salmonella choleraesuis*."

Recipients of the Biosafety and Biosecurity Awards, sponsored by the Animal Health Institute, were as follows: *Poster*: Tammi Hildreth, Kansas State University, for "Integration of biomedical sensors via telemetry for cattle health monitoring." *Oral, first place*: Satoshi Otake, University of Minnesota, for "Evaluation of mosquitoes (*Aedes vexans*) as biological vectors of porcine reproductive and respiratory syndrome virus." *Oral, second place*: N.E. McKeown, Virginia Poly-

technic Institute and State University, for "Molecular characterization of an orphan virus, porcine TT virus, from pigs in 6 different countries."

Officers of CRWAD for 2004 are Dr. Janet MacInnes, Ontario, Canada, *president*; Dr. Ian Gardner, Davis, Calif., *vice president*; and Robert P. Ellis, PhD, Fort Collins, Colo., *executive director*.

Information on membership and the 2004 annual meeting, Nov. 14-16 in Chicago, are available by contacting CRWAD Executive Director Robert P. Ellis, PhD, Department of Microbiology, Immunology & Pathology, Colorado State University, Fort Collins, CO 80523-1682; *phone*, (970) 491-5740; *robert.ellis@colostate.edu*.

### **U.S. Congress honors AAAS fellows**

The House of Representatives passed a resolution this past fall honoring the hundreds of American Association for the Advancement of Science Congressional Science and Engineering Fellows who have served in Congress. On Oct. 28, 2003, Michigan Rep. Vernon Ehlers introduced House Consecutive Resolution 279 in recognition of the 30th anniversary of the AAAS fellowship program.

The AVMA and American Veterinary Medical Foundation have sponsored 33 veterinarians as part of the AAAS program since 1988. These AVMA/AVMF Congressional Science Fellows have helped to raise awareness in Washington, D.C., about veterinary issues.

"This is a truly valuable educational program from the perspective of both members of Congress and the fellows that serve in it," said Ehlers, who is chairman of the House Science Subcommittee on Environment, Technology, and Standards.

Representative Edward J. Markey of Massachusetts added, "Bringing technical backgrounds that range from astrophysics to veterinary radiology, AAAS fellows have made important contributions to all areas of government policy."

Over the past 30 years, more than 800 scientists have worked in Con-

gress as AAAS fellows. They bring strong technical and scientific skills to the policy-making process. Throughout the year, fellows support the congressional offices in which they work by writing speeches and press releases, developing legislation, and meeting with constituents and outside groups.

Past AVMA/AVMF Congressional Science Fellows include Dr. Karen M. Becker, now a senior health adviser with the Department of Health and Human Services' Office of Public Health, and Drs. Michael Chaddock and Ray Stock, director and assistant director of the AVMA Governmental Relations Division, respectively.

### **Illinois dedicates biomedical laboratory**

The University of Illinois College of Veterinary Medicine dedicated 14,000 square feet of new biomedical laboratory space on Nov. 1, 2003.

Seven faculty members occupy the laboratories located on the second and third floors of the Veterinary Medicine Basic Sciences Building. There, they lead multidisciplinary teams in conducting research into infectious diseases and reproductive biology.

The National Institutes of Health funded much of the construction. When the building was built in 1983, about a fourth of the usable floor space was left unfinished, awaiting additional funds to create laboratory and animal facilities. Now the building is fully occupied.

## **From the AVMA**

### **Promoting the benefits of animal research**

At its November 2003 meeting, the AVMA Executive Board approved two recommendations to promote the benefits of animal research.

First, the AVMA will send a letter to the U.S. surgeon general encouraging him to publish a statement on biomedical research. The AVMA requested that his office recognize the central and essential role that animals play in biomedical research and education for the sake of humans and animals; agree that humane care and use of these animals is an integral part of

these activities; promote the proper stewardship of animals in meaningful research and education programs; and condemn all acts of vandalism against research facilities and their workers. The Council on Research recommended that this letter be written, since the surgeon general, currently Vice Adm. Richard H. Carmona, is the nation's leading spokesman on matters of public health.

The board also approved AVMA participation in the Foundation for Biomedical Research "Survivors" campaign, which aims to communicate the benefits of animal research for animal health to the public. The AVMA will promote the distribution of the "Survivors" educational material to the companion animal-owning public through veterinary practices. It will use current communication channels such as the Internet, journals, and press releases. The Council on Public Relations has established a subcommittee to develop strategies and evaluate potential partnership opportunities for future phases of the "Survivors" campaign.

### **AVMA joins lobbying efforts to recoup earmarked funding**

In November 2003, the Executive Board authorized the AVMA to join lobbying efforts in Washington, D.C., to recoup the \$80 million Initiative for Future Agriculture and Food Systems program for use in the National Research Initiative Competitive Grants Program. Passage of the Farm Security and Rural Investment Act of 2002 had already earmarked that money for the grants program.

In the past, the Department of Agriculture's Cooperative State Research, Education, and Extension Service was responsible for administering the IFAFS and the NRI Competitive Grants Program, two programs with similar missions. In 2002, the Farm Bill funded IFAFS at \$120 million, but for internal, political reasons, Congress chose to discontinue this program. Congress redistributed \$40 million of these funds into the NRI Competitive Grants Program, with a mandate to use the money specifically for IFAFS-like research projects. The

remaining \$80 million, however, has been in limbo.

Several research groups, including the Coalition on Funding Agricultural Research Missions, National Coalition for Food and Agriculture Research, and National Association of States Universities and Land Grant Colleges, have begun lobbying the government to release this remaining money to enable the USDA's CSREES to fund additional, needed research projects.

The AVMA Council on Research believes that release of the remaining money is essential to fund necessary agricultural research in the United States and made the recommendation for AVMA to join the lobbying efforts.

### **Buss receives nomination**

The Executive Board approved a recommendation from the Council on Research that the AVMA nominate Dr. Daryl D. Buss to serve on the National Academies committee of experts charged with conducting a study that will focus on the status and future of veterinary research in the United States. The Board on Agriculture and Natural Resources study is called the National Needs for Research in Veterinary Science.

The council believes Dr. Buss is well-suited to serve as the AVMA nominee. Dr. Buss is dean of the University of Wisconsin School of Veterinary Medicine. He chaired the Task Force on Veterinary Research during the development of the initial study proposal, and he chaired the Council on Research during refinement of the final proposal. Additionally, Dr. Buss has a keen understanding of many areas of expertise required by the National Academies for this study committee, including veterinary medicine, research, education, research grant administration, and human resource.

Almost 70 percent of the \$500,000 budget for the BANR study has been committed by sponsoring organizations, including the AVMA and the Association of American Veterinary Medical Colleges. The project can begin when 70 percent of the funding is in hand.

## **Regulatory Actions**

### **USDA announces unified food safety research agenda**

Agriculture Secretary Ann M. Veneman has announced a unified food safety research agenda to improve the efficiency and effectiveness of food safety programs. The plan is one of several key initiatives the Department of Agriculture is implementing to enhance food safety and improve food inspection systems.

The agenda prioritizes research needs and maximizes use of available resources. Priorities include an investigation into the ecology, epidemiology, virulence, and genetic characteristics related to pathogenicity for *Escherichia coli* O157:H7, *Salmonella*, *Listeria monocytogenes*, and other foodborne pathogens, to identify targeted control measures.

The agenda also calls for the development of effective farm, feedlot, transportation, handling, and other preprocessing intervention strategies for reducing the incidence and concentrations of antimicrobial-resistant microorganisms and key foodborne pathogens in meat, poultry, eggs, and fresh produce. It sets goals of developing, validating, and transferring technology of new and improved processing methods aimed at those food products, as well as at seafood and ready-to-eat foods. The agenda also calls for the development of rapid and sensitive detection methods for abnormal prions, to prevent the possible spread of transmissible spongiform encephalopathies.

The USDA Research, Education, and Economics mission area worked with the USDA Office of Food Safety, other government food safety agencies, and stakeholders to develop the new agenda, which can be found at [www.reeusda.gov/ree/pdf/foodsaf\\_research.pdf](http://www.reeusda.gov/ree/pdf/foodsaf_research.pdf).

The USDA also recently released a list of additional research needs specific to meat, poultry, and egg products, and the agency will encourage nongovernmental entities to address them. They can be found at [www.fsis.usda.gov/oa/programs/research\\_priorities.htm](http://www.fsis.usda.gov/oa/programs/research_priorities.htm).