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Excellence in research recognized: Robert Weiss earns 2008 Pfizer Animal Health Award

ITHACA, N.Y. -- Robert S. Weiss, PhD, associate professor for molecular genetics, earned the 2008 Pfizer Animal Health Award for Research Excellence, which comes with \$1,000 prize. He will present his research findings at a College of Veterinary Medicine seminar on Tuesday, December 9, 2008, during which time he will be presented with his award. The award has been provided to schools of veterinary medicine since 1985, promoting the accomplishments and research productivity of faculty in the early stages of their career.

Weiss's long-term goal is to improve cancer prevention, detection, and treatment in animals and humans. His particular research interest focuses on genome maintenance mechanisms and how the cells behave to preserve the DNA sequence.

"DNA is the instruction manual for cells," said Weiss. "The DNA sequence must be maintained, although it is susceptible to a wide array of genotoxic stressors, like UV light, and frequently damaged. The successful duplication of human cells requires error-free replication millions of times over the course of a lifetime. Fortunately, cells have a variety of safeguards and repair pathways that act to preserve genomic integrity. The significance of these mechanisms is highlighted by the fact that defects in them can have severe consequences, including tumor development and infertility. My laboratory investigates the functions of mammalian genome maintenance pathways at the molecular, cellular, and organismal levels."



Supported by NIH grants, Weiss conducts his research with a team at Cornell (that includes Eric Alani, Dept. of Molecular Biology and Genetics; Gerald Duhamel, Dept. of Biomedical Sciences; Alex Nikitin, Dept. of Biomedical Sciences; Rachel Peters, Dept. of Biomedical Sciences; and Tony Reeves, School of Electrical and Computer Engineering) and also collaborates with Cyrus Vaziri, associate professor of genetics and genomics, at Boston University.

"Weiss's efforts to identify the origins and effects of genomic instability in mouse models hold promise for highlighting new strategies to combat cancer in people and animals," said Mark Roberson, chair of the Department of Biomedical Sciences and professor of physiology. "There are probably very few people for whom cancer has not touched their lives. The results of Bob's work and studies built upon the knowledge he creates have the potential to positively impact millions of people and animals."

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