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Pseudorabies Studies

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Pseudorabies is a severe economic problem in parts of Pennsylvania. The disease, caused by a herpesvirus, primarily affects swine, and it causes death in young animals, abortions, and increased numbers of stillbirths. Pseudorabies is transmissible from swine to other livestock, such as cattle and sheep. For these animals, the effects are devastating as they succumb to the virus after suffering from intense itching and encephalitis. Pseudorabies can also infect cats, dogs and wildlife, causing death. Animals with pseudorabies, except pigs, often exhibit behavior resembling that of rabid animals such as self mutilation or stupor, hence the name of the disease.

"In pigs the infection is usually subclinical, and only when litter deaths, stillbirths, and abortions occur does the farmer suspect something amiss," said Dr. Daniel Cohen, an epidemiologist at the University of Pennsylvania School of Veterinary Medicine. "Pseudorabies is a reportable disease, and afflicted swine herds are quarantined and often slaughtered to prevent the infection from spreading to other farms. It causes an immense economic hardship to the farmer."

Despite quarantine, depopulation and other protective measures, many farms in certain areas of the state become reinfected shortly after new stock is introduced. "We decided to investigate the reasons for such reinfections," Dr. Cohen said. "A study was designed to determine whether wildlife in the area and other animals on the farm might not harbor the virus, acting as a reservoir from which the virus could be reintroduced into the swine population. The findings so far have been quite interesting."

The researchers discovered that about 17 percent of the cats tested in the affected areas were serologically positive, indicating that they had contact with the virus and survived it. This contradicts previous findings. It had been thought that all animals, except pigs, could not



survive a pseudorabies infection. The researchers found that 12 percent of raccoons tested also showed positive antibodies. Squirrels, dogs, mice, and rats tested were all negative.

At this point it is not clear whether cats or raccoons shed the virus and thus infect pigs or other livestock. So far the study has raised many more questions than it has answered. "We are looking for carriers," said Dr. Cohen. "We don't know how the virus gets into the wildlife population. Do the animals come in contact with it through manure spread on fields? Do they get it through direct contact with infected swine or by ingesting infected rodents? We don't know."

This year a genetically engineered vaccine will be available. "Antibodies resulting from this vaccine are clearly distinguishable from those developing as a result of the disease," said Dr. Cohen. "We will now test wildlife near vaccinated swine herds and look for antibodies. If a crossover of the vaccine virus occurs we will be able to detect it." Another project is to isolate the virus from wildlife. "We have a lot of work ahead of us, but if we can identify a reservoir in affected areas in wildlife or cats, precautions can be taken to minimize contact between livestock and these animals."

The study is being supported by a grant from the Pennsylvania Department of Agriculture.

New Appointments

Dean Edwin J. Andrews has announced the appointment of **Bruce A. Rappoport** as assistant dean for administration, New Bolton Center. Mr. Rappoport, who joined the School last year as director of the George D. Widener Hospital for Large Animals, has overall responsibility for New Bolton Center, the farm there, and the Widener Hospital.

Dr. Charles D. Newton, professor of orthopedic surgery and chief, Section of Surgery, has been appointed assistant dean for student affairs, effective July 1, 1988. Dr. Newton will be responsible for recruitment, student aid, and student affairs. Additionally, he will maintain his current role as director of continuing education.

Ms. Ashra Markowitz has been appointed associate director of development. She is overseeing the Alumni and Friends programs and is responsible for implementing a broad-based fundraising program at the Philadelphia campus. In addition, Ms. Markowitz will continue to supervise the Continuing Education Program.

Ms. Catherine C. Larmore has been appointed associate director of development for New Bolton Center. She is responsible for developing and implementing a comprehensive program of fundraising activities for New Bolton Center.

Mrs. Helma N. Weeks has been appointed director of communications. Mrs. Weeks handles media relations at VHUP and New Bolton and will oversee the School's publications.

Henry Bower Dies

Henry Bower died at the age of 90 in January. A graduate of the University (W18), Mr. Bower took a lifelong keen interest in Penn. In 1981, he endowed the Henry and Corinne R. Bower Chair in Medicine at the School of Veterinary Medicine. Mr. Bower also gave Penn Bower Field, a baseball diamond, and endowed the Henry Bower Professorship in Entrepreneurial Studies.

Mr. and Mrs. Bower always had dogs and owned wirchaired fox terriers, Scottish terriers, and great Danes. For a number of years Mrs. Bower bred Scotties. Their first contact with the Veterinary School was in the 1940s when Mrs. Bower brought a dog to be treated at the hospital.

After graduation in 1918, Mr. Bower joined the new air arm of the Marine Corps and became a lieutenant. In 1919, he began working for the Henry Bower Chemical Manufacturing Co. at 29th Street and Grays Ferry Avenue, a firm founded by his grandfather in 1855. He started in the sales department and worked his way up to become president in 1939, a position he held until 1967 when the company was sold.

Mr. Bower is survived by three nieces.

