

Laboratory Animal Medicine Residency Program

In June of 1990 three veterinarians graduated from Penn after completing a postdoctoral training residency in laboratory animal medicine. They were the first to complete the laboratory animal medicine residency program, established in 1987 at Penn's School of Veterinary Medicine. It is the only such program academically based in a veterinary school, and offers postdoctoral training in laboratory animal medicine through the Veterinary School and the Office of University Laboratory Animal Resources. The program is under the direction of Dr. Harry Rozmiarek, professor of laboratory animal medicine and Director, Office of University Laboratory Animal Resources. "We offer a three-year residency in laboratory animal medicine," said Dr. Rozmiarek. "We want to graduate competent laboratory animal veterinarians and research scientists. Their academic home is the veterinary school but the clinical training takes place there and at the three other Schools on campus that house animals. The residents gain additional clinical experience by seeing cases at the Philadelphia Zoo, other research institutions in Philadelphia, and at private industry animal laboratories. They work with a wide variety of species, ranging from insects and fish to large mammals."

It is estimated that more than 20 million animals are housed in research laboratories in the USA. By far the most are rodents. However, laboratory animals include a multitude of species, ranging from mollusks to primates, each requiring specific care to remain healthy and content. While animals have been an important part of medical research for centuries, regulations covering their care were not enacted in this country until 1966. Specialized laboratory animal medicine training for veterinarians became formalized nine years earlier, in 1957, with the establishment of the American College of Laboratory Animal Medicine. Prior to the specialized veterinary medical courses, the topic of laboratory animals was covered in laboratory animal science, not necessarily taught by veterinarians.

Dr. Rozmiarek explained that a laboratory animal medicine veterinarian deals not only with individuals but with populations of colonies. "Our practice is a preventive one, we try to keep disease out of the colonies. For example, we are trying to eliminate all rodent viruses from campus." The residents and laboratory animal medicine veterinarians see their patients in the colonies, very much like clinicians. "There are diseases that are of unique concern in laboratory animals, such as rodent viruses. And because many animals are kept together in one area, the transmission of disease within a colony is always of foremost concern." The animal facilities include isolation wards to prevent spread of infectious diseases. At hand are also diagnostic facilities, such as laboratories for tests as well as pathology laboratories, for the quick identification of disease.

The residents train in the clinical setting and take courses in biostatistics, genetics, immunology, radiation biophysics, and research methods. In addition, they attend weekly seminars on laboratory animal pathology, biology and diseases, uses of laboratory animals, and laboratory animal medicine. Clinical and pathology rounds are held every week. A resident may specialize in any aspect of laboratory animal medicine; nutrition is an example, it is offered here at Penn. Each resident must be the primary investigator for an independent research project involving animals; a scientific paper must be prepared and accepted for publication by a refereed journal.

Besides all aspects of medical care for laboratory animals, the residents' training covers proper socialization of these animals, enrichment of their environment through lighting, play equipment, and

interaction with humans. These are especially important to keep cats, dogs, and primates content and occupied.

The administrative aspects of the specialty are also covered. Residents are familiarized with institutional, state, and federal regulations governing laboratory animals. They learn to design a research project from the initial proposal to the grant application process to shepherding it through the University regulations to carrying out and monitoring the work, in short, they are exposed to all aspects of laboratory animal medicine, be they medical or administrative. Once the residency is completed, a board exam can be taken to become board certified in laboratory animal medicine.

In addition to a core course in laboratory animal medicine taken by all veterinary students, laboratory animal medicine courses are also offered as an elective to junior and senior veterinary students.

"Last year we had 35 students taking the course," said Dr. Rozmiarek. "There is a great deal of interest in the subject and a great need for qualified people."

While the subject of animal use in research is a controversial one, the post graduate training in the specialty, and the courses offered to veterinary students, ensure that specially trained veterinarians take an active role in the care of these animals. As the graduates of the residency program are familiar with the medical requirements and regulatory and administrative concerns, animal research projects can be better designed and monitored, keeping the wellbeing and comfort of the animals foremost.

The postdoctoral residency in laboratory animal medicine is open to applicants holding a VMD/DVM degree or equivalent. For further information about the program, please contact:

Dr. Harry Rozmiarek
Professor of Laboratory Animal Medicine
Director, Office of University Laboratory
Animal Resources
University of Pennsylvania
100 Blockley Hall
Philadelphia, PA 19104-6021

Dr. Stubbs dies

Dr. Evan Lee Stubbs, a pioneer researcher in avian pathology, died Jan. 3, 1991 after celebrating his 101st birthday at his home in Kennett Square, PA. Dr. Stubbs graduated from the University of Pennsylvania School of Veterinary Medicine in 1911 when veterinary medicine in the United States was still an emerging profession; the primary patients were horses, cows and other livestock, and veterinary researchers were scarce.

Dr. Stubbs opened a country practice at his father's farm near Oxford, PA and made farm calls for more than two years by horse and carriage. In 1913 he accepted a position as veterinarian at the State Farm, located in Marple Township, PA. This farm, operated by the Pennsylvania Bureau of Animal Industry, produced anti-hog cholera serum which was supplied free of charge to veterinarians. Dr. Stubbs was also on call to visit sites of hog-cholera outbreaks and was available for other diagnostic assistance.

The State Farm was closed in 1919 and Dr. Stubbs was transferred to the State Laboratory, located at Penn's Veterinary School in Philadelphia. Here he was responsible for conducting a variety of diagnostic tests, primarily for diseases in livestock. At that time Dr. Stubbs became interested in poultry diseases, a field then neglected by the veterinary profession. He was one of the first researchers in the United States to study avian diseases. He identified the first case of fowl plague in the United States and conducted research on avian influenza. Dr. Stubbs also studied avian leukosis and strain 13 sarcoma virus experimentally. By 1927 he had published 15 scientific papers on poultry diseases and had initiated a special post graduate course on poultry diseases for veterinarians.

In 1927 the State Laboratory was moved to



DR. EVAN L. STUBBS (Class of 1911).
Photograph from the 1930s.

Harrisburg. Dr. Stubbs resigned his position as director and accepted a teaching appointment at the School of Veterinary Medicine. He played a leading role in the establishment of a laboratory of clinical pathology at the School and was instrumental in the formation of the School of Animal Pathology, a collaborative effort of Penn's veterinary and medical schools.

In 1928 he became assistant professor of veterinary pathology at the School and developed a clinical pathology course and courses in poultry pathology for veterinary students. He played a vital role in the establishment of a veterinary pathology graduate program at the University. In 1930 Dr. Stubbs was promoted to professor of pathology and head of the newly created department of pathology in the Veterinary School.

During his long career Dr. Stubbs published 161 scientific articles and attended four World Veterinary Congresses and eight World Poultry Congresses. He presented papers at a number of these meetings and became an internationally known and respected poultry pathologist.

Dr. Stubbs was one of the founding members of the American College of Veterinary Pathologists. He served as its president in 1960.

Dr. Stubbs retired that same year. In September 1988 the School dedicated the Stubbs Laboratory in his honor at the School's New Bolton Center campus. This building is used for research with infectious organisms, primarily of poultry.

On the occasion of his 100th birthday celebration in 1990 Dr. Stubbs entertained his guests with vivid accounts of the early days of the School thus supplementing material he had published in the School's first official history book in the 1930s.

At the time of his death Dr. Stubbs held the position of emeritus professor of pathology at the University of Pennsylvania School of Veterinary Medicine. Dr. Stubbs is survived by Ruth Stubbs Denlinger, Bethesda, MD, his daughter, and by his sister Elma Stubbs Mason, Oxford, PA, and seven nieces and nephews.

Dentistry Program Expanded

The small animal dentistry program expanded in 1990-1991. A second veterinary dental resident, Dr. Paul Orsini, was appointed. Dr. Orsini will continue to work with some large animal dentistry-oral surgery cases at New Bolton Center periodically. Dr. Phillippe Hennet, a visiting research fellow, is working on a project to evaluate metronidazole-spiramycin as an antibacterial combination for oral diseases in dogs. Ms. Bonnie Flax, RDH was appointed as staff hygienist at VHUP and research technician in veterinary dentistry, replacing Ms. Marsha Venner. Other new or continuing veterinary dental research projects include multi-hospital studies of the epidemiology of oral and periodontal diseases in dogs and cats, and causation of 'neck lesions' in cats.