

More Milk from

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I he livestock industry, like other businesses, has experienced a great rise in costs in recent years. "The largest expense item for a dairyman is the cost of feed for his herd," said David T. Galligan, V.M.D., resident in clinical nutrition at New Bolton Center, and the field representative for the nutritional

resentative for the nutritional service. This service, begun in December 1982 by the Section of Nutrition, Department of Clinical Studies at New Bolton Center, University of Pennsylvania, utilizes nutritional science to tailor feed rations at livestock farms served by the NBC field service and by referring veterinarians.

Gone are the days when the dairyman could raise all the feed needed for a highly productive herd. Today herds are larger and individual cows produce more milk. Cattle are not out on pasture but are fed a mixture of different foods, including grain. According to Dr. Galligan, approximately eighty percent of the dairy farmers' expenses are for feedstuffs.

"Our service tries to improve the efficiency of feeding," he said. "Other objectives are to improve reproductive efficiency and to reduce disease incidence." Since the inception of the service, Dr. Galligan has formulated feeding programs for about seventy farms. He visits not only dairy farms but also horse farms and other livestock establishments.

Cattle eat a mixed diet. They are fed forages, such as hay, grass and silage, and grain-based concentrates. Many dairymen raise a large portion of the forage needed, but most purchase the concentrate. This diet of forage and grain provides the dairy cow with food energy and essential nutrients, such as protein, vitamins, and minerals, needed to keep in bountiful health and to produce abundant milk.

Each ingredient in the forage has a different nutritional content. "When developing a feeding program for a herd, we try to optimize the combination of these feeds to enhance milk production and to minimize costs," said Dr. Galligan. "It is cheaper for the farmer to use as much forage as possible, but there is a fine balance. We must watch the composition and make sure that the diet contains all the required nutrients. Our guidelines are based on standards established by the National Research Council, modified by our research at NBC and experiences on farms."

Clients usually are referred by veterinarians or the School's field service. The nutrition service visits the farm, and Dr. Galligan discusses the "When developing a feeding program for a herd, we try to optimize the combination of these feeds to enhance milk production and to minimize costs."

current feeding practices and management with the farmer. He takes a herd health history and determines incidences of diseases, such as milkfever. "This can be prevented by proper nutrition," he said. "It can be an expensive problem. Not only is production lost but the cow may develop secondary problems." By adjusting the diet prior to calving this disease can be prevented. *continued on 2*

Bellwether

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We'd like to hear your

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Judy Smith

MORE MILK FROM LESS FEED

(continued from cover)

Dr. Galligan collects samples of the forage and makes a record of the quantities and costs of all the feed used. The forage samples are sent to a laboratory for analysis of nutritional content. That information is compared to the NRC standards, and a feeding formula is developed.

The formula will vary, depending on the stage of the cow's lactation cycle. Milk production peaks one or two months after calving and slowly tapers off. Cows are bred annually and a few weeks prior to calving are put in a dry lot as they no longer produce milk. At each stage of this annual cycle the nutritional requirements are different. A cow at peak performance level needs a great deal more food energy and protein than a cow in the dry lot.

All of this is calculated, and a ration is formulated taking into account the forage on hand as well as the grain available for purchase and the costs. Feed varies from region to region. For instance, cattle in the south receive a lot of their protein from cottonseed, a feedstuff not readily available in the northeast. Also, the content of forage varies from harvest to harvest. This means that each new batch has to be analyzed for nutritional content to obtain the most beneficial and cost effective formula. Usually Dr. Galligan visits a farm four times a year to take forage samples.

He explained that on the average the nutrition service has been able to reduce feed costs at dairy farms by about fifteen to twenty percent. He cited a forty head herd where he was able to reduce the costs by 79 cents per cow per day. This amounted to a nineteen percent saving in the feed bill. But the benefits go further, milk production has increased by as much as thirteen percent. The savings are even more dramatic for a large herd. He told of a 500-head herd where the annual savings in feed costs and the money realized from increased production amount to about \$70,000. "The nutrition service provides a huge return in savings for the amount expended for consultation and laboratory fees," he said.

Improved productive efficiency on dairy farms following re-formulation of feeding programs has appeared in general to be associated with improved reproductive efficiency and reduced disease incidence.

Improved productive efficiency on dairy farms following re-formulation of feeding programs has in general appeared to be associated with improved reproductive efficiency and reduced disease incidence. More rigorous documentation of these responses is being made through the combined efforts of the NBC nutrition service and field service.

The nutrition service is also utilized by horse breeders. "It is harder to measure the impact here," he said. "We can look at weanling weights, evaluate problems in growing stock, but all this cannot be as easily measured as milk production in cattle." He also consults with farmers who raise pigs, though such farms are usually served well by feed companies. He mentioned one case where farrowing sows, shortly after giving birth, would break legs. "We analyzed the feed and found it deficient in calcium and phosphorus," he said. "The ration was adjusted and the problem solved."

Dr. Galligan sees nutrition and nutrition services as an exciting, expanding field of veterinary medicine. "Already an number of practitioners are interested in it and are doing nutritional counseling," he stated. "There are two groups of veterinarians who have access to our computer and develop formulas for clients. We hope to expand this service." He also hopes that, in the near future, the School will set up a laboratory for analyzing feedstuffs rather than having to use an independent laboratory. "We need to reduce turnaround time, from the time the samples are collected to giving the new formula to the farmer," he explained.

"Our service is able to provide the most up-to-date information. We are continually searching for innovative feeding programs which will deliver the most beneficial amount of nutrition for the least cost."

He also pointed out that, while he is working in the field, research continues at the School. "Our service is able to provide the most up-todate information. We are continually searching for innovative feeding programs which will deliver the most beneficial amount of nutrition for the least cost." If there are special problems pertaining to nutrition, the service has the backup of the entire department, its specialists, and researchers.

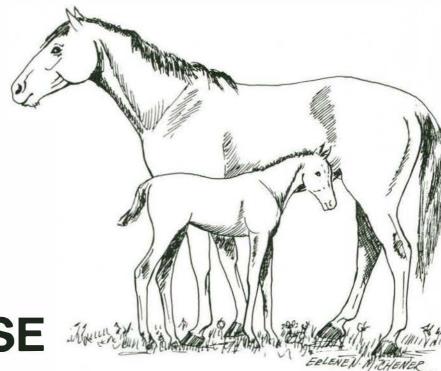
The nutrition service has made the difference between overall profit or loss on several farms. Costs to farmers have been moderate and may need to be raised to sustain our efforts. Returns to farmers on their costs for the NBC nutritional service have been outstanding—twenty to fifty dollars for every dollar spent. One reason, according to Dr. Galligan, "We are not selling commercial products. We formulate feed commodities specifically for the individual herd."

The program has been received enthusiastically, and a second field representative will join the staff shortly.

The nutrition service is also available for consultation for dog breeders and large kennels. For additional information and referral procedures, please call (215) 444-5800, extension 306.

We Forgot

The story "Links to Penn" appearing in Bellwether 8 was contributed by Dr. Martin M. Kaplan (V'40). We apologize for omitting this information.



Killer On the trail of A FATAL LIVER DISEASE

Tracking a

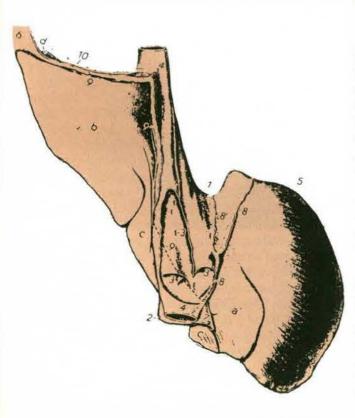


n February 23, 1983, a comatose three-day-old Standardbred foal was admitted to the George D. Widener Hospital for Large Animals at New Bolton Center. The filly, healthy and normal for the first forty hours of its life, had suddenly become uncoordinated and then comatose. Tests indi-

cated that its liver was not adequately functioning.

It was the first of eight foals with liver failure seen at New Bolton Center. Practitioners in other parts of the country also reported similar cases. During the spring of 1983 sixty foals in eleven states succumbed to liver failure caused by an unidentified disease.

Researchers at New Bolton Center and at other institutions launched a concentrated effort to determine the cause of this apparently new liver disease. A team of clinicians and research investigators at the New Bolton Center conducted extensive laboratory and pathologic studies as well as epidemiologic surveys. It was found that foals with the disease had been healthy and normal at birth and that the first signs of liver failure had appeared between the age of two and five



days when the foals became disoriented, weak, and jaundiced. Some foals were hypoglycemic, others were hypothermic, and some had elevated heart rates when admitted to the hospital.

Pathologic studies showed the livers of these animals to be shrunken and damaged. It was also found that the thymus glands were smaller than in healthy animals, and that microscopic lesions had occurred in the brains. The tissue and blood samples were examined for evidence of equine herpes virus I and viral hepatitis B, but no evidence of either disease was found. During further studies the researchers also ruled out foal septicemia, neonatal isoerythrolysis and Tyzzer's disease as the possible causes of the liver failure.

The foals seen at New Bolton Center as well as the foals seen elsewhere had received a live culture product reported to enhance intestinal flora shortly after birth.

The pathologic findings of the damaged livers suggested liver failure due to a toxin. It was thought that the foals had been exposed to such toxin in utero. However, no evidence of such toxins was found in the mares or the foals. The feed of a number of mares was analyzed and no toxins were found. The pregnant mares had not received unusual drugs or live vaccines and the pregnancies had been normal, without complications.

The researchers also looked at the incidence pattern of the disease. They found that it occurred suddenly in a few foals. Prior to the appearance of the disease, and after it, healthy foals had been born and raised on these same farms. Checking back it was found that in 1981 there had been six cases of liver failure in very young foals in New Jersey and Maryland.

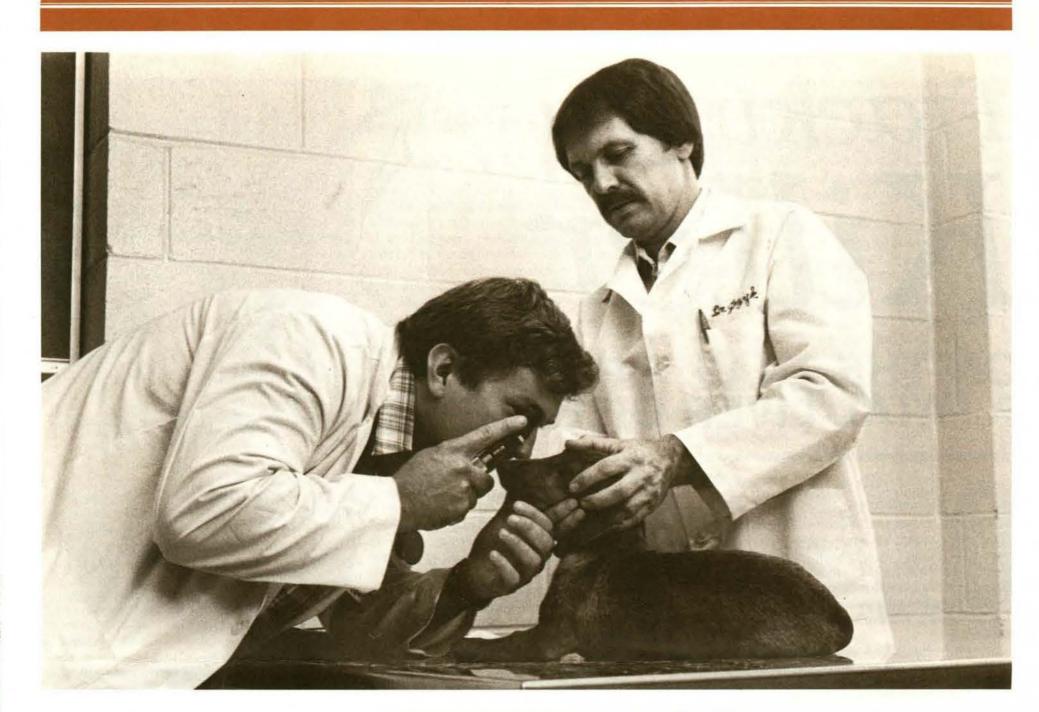
The team began to look at the possibility that the liver damage had occurred after birth. Changes similar to those found in the liver tissue of the foals had been documented in a horse which died after receiving aflatoxins (toxins produced by fungi). The researchers examined the substances the foals had received shortly after birth as it seemed most likely, based upon epidemiologic evidence, that a hepatoxin administered to the foals shortly after birth was responsible for this new and unusual syndrome. The foals seen at New Bolton Center as well as the foals seen elsewhere had received a live culture product reported to enhance intestinal flora shortly after birth. The widely used product was given on the first and third day of life and this may explain why some cases of liver failure occurred at two and three days of age and others at the age of five days.

The product contains Aspergillus oriza which may produce a potential hepatoxin. The product also contains iron fumalzate, another known hepatoxin. It was found that the foals which died from the disease in 1981 also received an identical product. The product has been given to hundreds of foals without ill-effect. This could suggest that individual vials of the product are to blame. The sporadic incidence could also be related to the age of the foal at the time of product administration.

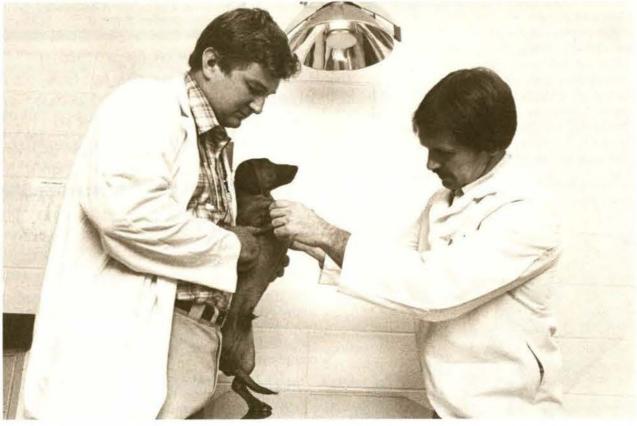
Universities are continuing the search for the exact cause of the liver failure in very young foals. Epidemiologic surveys and toxicologic and immunologic tests are being conducted to determine the precise etiology and pathophysiology of this fatal disease.

The studies at New Bolton Center are being conducted by Dr. Thomas J. Divers, Dr. Helen Acland, Dr. Lawrence Glickman, Dr. Diane Gunson, Dr. Jonathan Palmer, Dr. Angeline Warner, Dr. Robert Whitlock, and Dr. Dennis Hill. The study is made possible by a grant to the Equine Research Fund at New Bolton Center, University of Pennsylvania.

During the spring of 1983 sixty foals in eleven states succumbed to liver failure caused by an unidentified disease.



The puppies and kittens seen at the clinic range from animals brought in for vaccination and a check-up to animals with severe disorders, referred by practitioners.



PEDIATRICIANS FOR ANIMALS

THAT IMPORTANT FIRST VISIT

puppy's or kitten's first visit to the veterinarian may be the most important one of its life," explained Dr. Peter F. Jezyk. "Here a relationship between the owner and the veterinarian is established and a care and health routine is developed for the rest of the animal's life. It is a very "

special visit."

This concept is stressed to the fourth-year students who work in the Pediatrics Clinic. The Clinic, part of the genetics and reproductive clinic established by the Section of Medical Genetics at the School of Veterinary Medicine, University of Pennsylvania, developed gradually over the past six years. "Originally we began it as part of our metabolic disease screening program," said Dr. Jezyk, associate professor of medicine (medical genetics). "It grew and developed into the only clinic of its kind at a veterinary school."

Pediatrics is an important aspect of veterinary medicine, "About one quarter of the cases in a practice involve young animals," he said. "Pediatric patients are those animals which haven't finished growing, up to about one year of age."

Puppies and kittens differ from mature cats and dogs. "At this hospital, where sixty percent of the cases are referral cases, students are accustomed to seeing rare conditions rather than healthy animals," he said. "In the Pediatrics Clinic we teach them that certain signs, such as larger lymph nodes, are normal for young animals. Students learn that puppies and kittens have different laboratory values than adult animals and that they, like children, are subject to childhood diseases which are not seen in mature cats or dogs." Students learn how to handle and examine the young animals and to explain to owners the importance of vaccination schedules and worming routines. "Distemper is sixty percent fatal and even if an animal survives, it is often damaged," Dr. Jezyk said. "This disease, as well as others, can be prevented through vaccination. Regular vaccinations of cats and dogs are preventive medicine and are less expensive in the long run than caring for an animal with one of the viral diseases." He explained that diseases such as distemper, parvovirus disease and others cannot be eradicated because they occur in the wildlife population. Prevention is also stressed in the case of heartworm disease. "We feel it is very important to educate the owner and to discuss the future health care an animal will need," he explained. "An educated owner is a better owner; he will be able to spot a problem sooner and this may enable the veterinarian to prevent an illness from becoming a major one."

Dr. Jezyk discussed the importance of vaccination schedules. "The intervals depend on the situation the animal is in. If it is a single pet, innoculations are given at different intervals than if the animal is part of a large breeding establishment, where immunizations must be given much more frequently." He also pointed out the value of detailed records, particularly for young animals. "When the veterinarian has information about the growth rate and the weight gain of a young animal, it is often much easier to make a diagnosis. This is particularly important in the case of very young animals."

"An educated owner is a better owner, he will be able to spot a problem sooner and this may enable the veterinarian to prevent an illness from becoming a major one."

The patients coming to the clinic are usually six weeks or older. "Economically, it is often not feasible to treat a one- or two-week-old puppy or kitten," he said. "Also, the mortality rate in an average purebred litter is about twenty percent. This is due not so much to disease but to inborn defects."

The puppies and kittens seen at the clinic range from animals brought in for vaccinations and a check-up to animals with severe disorders, referred by practitioners. In the latter cases the clinic often draws upon the other specialties at VHUP in an effort to help the patient.

Dr. Jezyk pointed out the importance of check-ups at a later age. "People wouldn't dream of not taking their children to the pediatrician annually," he said. "Yet they assume that a young puppy or kitten, after having received the last permanent vaccination at twelve to sixteen weeks of age, doesn't need to see the veterinarian again until it is time for booster shots a year later." Much can happen during this time. He explained that many disorders do not manifest themselves until an animal is over six months of age. "We used to see the young animals at about that age for the rabies innoculation," he said. "We then could give it a physical exam and detect any abnormalities. Now, with an increase in rabies in the wildlife population, this vaccination is given earlier and many people won't bring a puppy or kitten back at six or seven months of age just for a check-up."

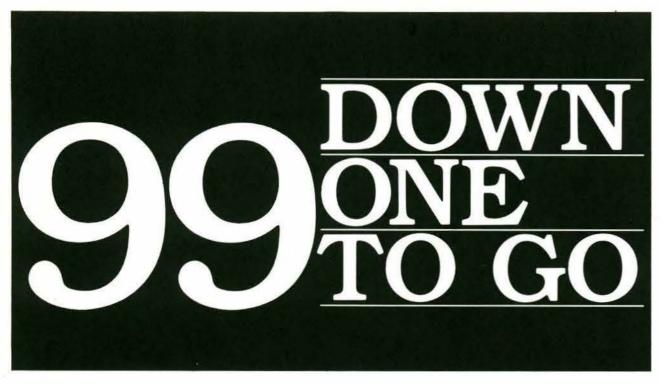
Another aspect of pediatrics is nutrition. "We have seen some rather bizarre diets recommended for puppies and kittens by well-meaning breed-

ers," Dr. Jezyk said. "Some involve three or four different foods given at various times of the day. Often these are expensive, complicated to prepare, and of little value to the growing animal." He recommends to owners that puppies and kittens are fed a good commercial feed, tailored to the need of growing puppies and kittens. He also is not in favor of supplementing the daily ration with vitamins and calcium. "We don't often see problems due to the lack of calcium or vitamins," he said. "Rather, we frequently see animals with problems due to oversupplementation of these substances."

The Pediatrics Clinic at the School is an important resource. It provides practitioners with a clinic for referrals of difficult and unusual problems in young animals. It is also a place where students learn to treat a healthy young cat or dog, a population which will be a major part of their practice. The clinic is, as Dr. Jezyk put it, a clinic for "small animal herd health," an aspect of veterinary medicine very important to the well being of the puppies and kittens which become part of countless families each year.

The Pediatrics Clinic sees patients Mondays and Tuesdays, appointments can be made by calling (215) 898-4680.





In lieu of continuing our series on the history of the School at this time, we felt it appropriate to present the story of Allam House and the role played by former Dean Mark W. Allam.

rominent among the buildings on the rural campus of New Bolton Center is Allam House, an historic manor. Situated in the midst of modern, clinical buildings, Allam House is an oasis from the sterile, white-garbed world of veterinary medicine. It is the center of many

social occasions and serves as a home away from home for visiting scientists and other guests.

The house was named after the distinguished Dr. Mark Whittier Allam, who made his own history throughout an illustrious career as a veterinary surgeon and as dean of the School of Veterinary Medicine of the University of Pennsylvania. Asked about the circumstance that led to the naming of the house, Dr. Allam laughed. "They looked at the list of names and mine was at the top. It used to be Hallam; that's the English-Dutch spelling," he noted. In a more serious vein, he added, "It's quite an honor, especially since the house serves such a useful purpose for so many people."

Now semi-retired, the former dean is still actively involved in promoting the Veterinary School and its accomplishments. Dr. Allam and his wife Lila share an interest in preserving the history of Allam House. "The original part of the house, a Swedish log cabin, was built in 1710," said Dr. Allam. "A second addition was built in 1725 and a third wing was added in 1750. The Caleb Pusey family was one of the original owners. Pusey obtained most of the farm acreage that is now New Bolton Center through a land grant from William Penn. There is a legend that they used to feed the Indians through the small windows in the logroom."

Nearly two centuries later, in 1940, Charles A. Higgins purchased the property and restored the twelve-room interior with the help of architect Brognard Okie, who according to Dr. Allam, was well known for his panelling and for the distinctive black iron hardware accenting the rooms.

The property constituting New Bolton Center was acquired by the University in 1952. Until 1965 the upper level of Allam House functioned as a student dormitory. Offices and the library were also in the house. "A ladies' committee was formed in 1965 to help raise money to furnish and redecorate the Allam House interior," said Mrs. Allam. "It was first chaired by Mrs. Henry B. Du Pont and included Mrs. Joseph Walker, Mrs. John West, an interior designer, Mrs. Molly Harnwell, wife of the former University president, and Mrs. Merwin Jackson."

Among the exquisite antiques found in the Allam House are a tall case English clock from the Colonial period and a signed Duncan Fife desk. Several pieces of furniture were left by the Higgins', including a pair of Windsor chairs and four Jennersville chairs and settee. Dr. Allam pointed to the plaque in the entrance hall recognizing the contributions of Mr. David G. Jones and his wife, Marian Dilley, who established the Allam House Preservation Fund. Framed deeds to the house share the walls with paintings by local artists Carol Jones Frye and Frank Jeffries. The house also boasts four Hogarth prints which are located in a parlor known as the "Hogarth Room."

Other outstanding features the Allams pointed out include hardwood floors and brick floors which were built with bricks from the streets of Wilmington, purchased by Higgins. A donkey and hand-carved harness cart from Sicily stand at the living room hearth, one of the many fireplaces in the house. It was donated by the late Philadelphia theater magnate, William Goldman. The colorful caretta is sometimes used by Dr. Allam, an avid horseman and carriage driver, for festive occasions such as the Chester County presteeplechase events in which he participates.

The University's collection of antique carriages is kept in the carriage house below the manor. Several of the carriages were donated by Mrs. John Ingersoll, Dr. Robert Mayock of Penn's medical faculty, the late William Goldman, and two from the Allams. While driving the horses remains an active avocation for Dr. Allam, administering to them and other domestic animals was his vocation.

Not unlike British colleague and author, Dr. James Herriot, Dr. Allam enjoyed a rural veterinary practice from 1932 to 1945 in Media, where the Allams still live. "In a one-man practice the days were very long, it was not unusual to work a twenty-hour day," said Dr. Allam. "Working long hours meant some sacrifices. I did not see my daughters growing up. Mrs. Allam deserves the credit for raising them."

Reflecting on his years as a veterinary student, Dr. Allam commented on the progress the Veterinary School has made since he received his V.M.D. degree in 1932. "I think back and compare my own education with what the students learn today," he said. "They get so much more. I never witnessed, let alone, did, surgery in my four years as a student. I did get to see a dog euthanized once. We administered to the patients during clinic hours, but there were no surgical exercises at all. As a consequence we helped our neighbors, whose animals needed surgery. In my third year of school, a junior colleague and I borrowed instruments from the clinic and set up a surgery in the garage, where we operated on a neighbor's beagle that had a hernia.

When we realized that we couldn't boil catgut for sutures, I took the G-string from the owner's daughter's violin. Afterwards, when that beagle started to bay, he did it in G."

During the second year of his practice a hospitalization for appendicitis happened to be fortuitous for Dr. Allam. He was encouraged to pursue surgery by physician Dr. Charles Norris, who later introduced him to Dr. I. S. Ravdin, then professor of surgery and director of the Harrison Department of Surgical Research at the School of Medicine at the University of Pennsylvania. While he retained a busy practice administering to the needs of some ninety area farms, Dr. Allam became a part-time instructor in veterinary surgery in 1943.

"We did surgery from 11 p.m. to 3 a.m., which the students did not like," he recalled. "My first case was a Chester County foxhound that had been hit by a car, causing a hernia in the diaphram. I had to use bellows from the fireplace to stimulate the animal's lungs and circulation because we didn't have an appropriate instrument."

Dr. Allam joined the Harrison Department in 1946, working on a research project in peripheral nerve regeneration. He credits in particular the help of several research associates, Dr. Julian Johnson, since retired, Dr. Brooke Roberts, chief of surgery at Penn, Dr. Paul Nemir, and Dr. Herbert Hawthorne, deceased. Other published research projects included transplantation of a thyroid carcinoma in the canine species.

In his early tenure on the faculty, aseptic or sterile surgery was not practiced in the Veterinary School. Dr. Allam is proud of his effort that helped to pioneer the aseptic surgical procedure in the late 1940s.

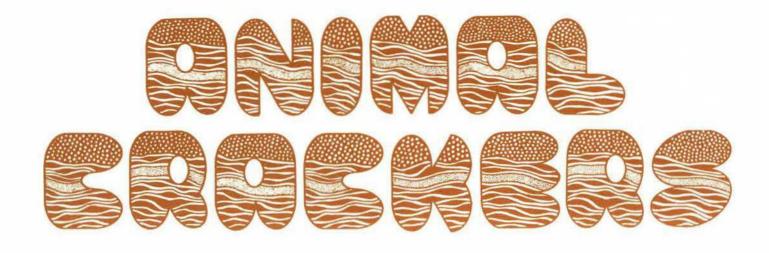
"I remember my professor, Dr. William Lentz, who used to roll up his sleeves, lay down his cigar, and scrub for surgery," he said. "In fact, the procedure had to be Dr. Lentz' suggestion before the others at the School would agree to it."

Dr. Allam became dean of the Veterinary School in 1951, a post he held until his retirement in 1973. Returning to the faculty, he held the position of assistant vice president for health affairs until 1977, when he officially retired.

As dean Dr. Allam quickly saw that the Veterinary School was in "dire straits," lacking adequate facilities and modern equipment. He was in office only one week when the purchase agreement for New Bolton Center was signed. In 1953, the Veterinary School was in danger of being closed unless funds were found to keep its doors open, according to Dr. Allam.

"Former University president Harold Stassen wasn't enamored with New Bolton Center and felt that it had been a mistake to buy the Center because it was rumored that the Coatesville steel mills were moving into the area," explained Dr. continued on 13

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In 1984, the American Kennel Club and the School of Veterinary Medicine of the University of Pennsylvania will celebrate Centennials. There will be many special events, including the American Kennel Club's 100th Anniversary Dog Show to be held at the Philadelphia Civic Center. November 17-18, 1984. As an "opening gun" AKC has published The AKC's World of the Pure-Bred Dog (Howell Book House, 1983, \$29.95). This handsome book gives a wealth of information on the rich and diverse world of the dog. There is information about the 125 registrable breeds and AKC-sponsored activities- Dog Shows, Obedience and Tracking Trials, and Field Trials. There are chapters on the Dog in Art and the Dog in Prose, Famous Dogs and Their People, Dogs Serving Man, and the AKC itself. There are many photographs and a full-color section with thirty-three of the world's most outstanding examples of painting and sculpture paying tribute to the dog. The book celebrates both dogs and the AKC's one hundredth birthday.

Some facts from the text: • There is no provision under which individuals can join the AKC—it is an association of clubs. Delegates from member clubs must be amateurs.

• In 1929, the first edition of what is now titled *The Complete Dog Book* appeared. Its contents include the breed standards—the "world pattern" against which the dog is to be judged in the show ring. The current edition is the sixteenth.

• In 1936. the first Obedience Trial was held.

• AKC is the largest animal registry in the world. It also governs the sport of pure-breed dogs in the United States. In 1945, 147,707 dogs were registered and there was a combined total of 394 events (Dog Shows, Obedience Trials, and Field Trials). In 1980, there were 1,011,799 dogs registered and a total of 8,885 events.

• The AKC Library at 51 Madison Avenue. New York City, is the largest collection of dog-related books and periodicals available to the public in this country.

• The Dog Museum of America was opened at 51 Madison Avenue, New York City, in 1982. Exhibitions of canine art are open to the public.

• AKC registrable breeds are divided into seven groups. Group 1 (sporting) includes twenty-four breeds, all of them developed for hunting feathered game. Group II (hounds) hunt non-feathered game—there are twenty hound breeds at this time. Pharoah hounds will be added in 1984. Group III is the Working Group (eighteen breeds with Portuguese water dogs to be added in 1984). There are twenty-three breeds in Group IV, the terriers. The toys (fifteen breeds) are Group V. The Non-Sporting Group (Group VI) is the smallest with eleven breeds and Tibetan spaniels to be added in 1984. Group VII, the Herding Group, was established in 1982 when fourteen breeds were transferred from the Working Group.



The Canadian Kennel Club registers some breeds not recognized by the American Kennel Club. They also do not as yet recognize some AKC breeds (Ibizan hounds and American Staffordshire terriers). They require a tattoo or nose print to identify each dog registered. One of the breeds recognized in Canada but not by AKC is the Nova Scotia duck tolling retriever which lures and then retrieves waterfowl. The tolling dog runs, jumps, and plays along the shoreline, arousing the curiosity of ducks swimming offshore which arc lured within gunshot range. Another breed, recognized in Canada but which has not been seen at Canadian shows for a number of years is the Drever. It is said to be one of the most popular breeds in Sweden and looks like a eross between a beagle and a basset. Canadian shows offer classes for German long-haired pointers, wire-haired vizslas, Canadian Eskimo dogs, Karelian bear dogs, and Mexican hairless. The AKC withdrew the Mexican hairless from its official roster in 1959, although it was popular at one time and was shown in the United States as early as 1883.





Nearly two-hundred genetic defects have been identified in purebred dogs and the number is increasing. There are frequent reports in scientific publications on inherited diseases and new information showing that diseases, while not wholly hereditary, are influenced by genetic factors. As a general rule, there is no way to treat genetic diseases. They must be eliminated through selective breeding programs. Unfortunately, many puppies that die at any early age are simply discarded and no attempt is made to determine the cause of death. There is no organized reporting system to help accumulate factual information on genetic diseases. What is needed is cooperation between breeders, scientists, and breed organizations. Far too much undocumented information has been published.

The breeder has the responsibility of using the best specimens available. Each breed has its special characteristics and what is ideal for one breed might be a serious fault in another. Each breed club should develop a program to identify and tabulate problems in that breed.

Very little good information is available. A recent publication, Medical and Genetic Aspects of Purebred Dogs, edited by Ross D. Clark, D.V.M. and Joan R. Stainer, Veterinary Medicine Publishing Company, 1983 (\$49.50), gives information on 130 breeds. Several hundred breeders and veterinarians contribute information on the different breeds. There is some good information presented, much of it gleaned from reviews by other authors, along with undocumented statements and incorrect facts. A large part of the material seems to be the opinion of the writers rather than scientifically collected and analyzed data. In many breeds, information on genetic problems is incomplete. The book should be of interest to breeders and veterinarians but it should not be considered a definitive reference on genetic diseases of the dog.

CANCER

Cancer is uncontrolled growth of cells, invading surrounding normal tissues and spreading throughout the body. Cure is possible if diagnosed early and treated properly. Methods of treatment include surgical removal, radiation, chemotherapy, and immunotherapy. Common signs of cancer in pets are:

Abnormal swellings that continue to grow

Sores that do not heal

Bleeding from the mouth, nose, urinary tract, vagina, or rectum

Offensive odor

Difficulty eating, swallowing, breathing, urinating, or defecating

Loss of appetite, weight, or energy

Persistent lameness or stiffness of movement

Examine the animal often and obtain veterinary advice if unusual signs are noticed. The cause may not be cancer, but the earlier the condition is diagnosed and treated, the better the chance of successful treatment.



Diarrhea is a sign and not a specific disease. There are many causes, including scavenging, excitement, sudden changes in diet and unfamiliar water. Intestinal parasites and viral diseases also may cause vomiting and diarrhea. If diarrhea persists for more than twenty-four hours, you should see your veterinarian immediately. Home treatment includes fasting for twenty-four hours followed by a bland diet. Ice cubes and Pepto-Bismol may help, but avoid other medications unless prescribed by a veterinarian. Adding bran to the diet may be useful in controlling diarrhea.

Giardiasis is a diarrheal disease caused by a microscopic protozoan parasite. Giardia is a common intestinal parasite in humans and it has been found in dogs, cats, and other animals. There are carriers and cross infections which may occur between animals and humans. The disease is transmitted by ingestion of contaminated water or food. Carriers may show no signs. Infections may cause loss of weight in spite of a good appetite and adequate diet and, in some cases, there is severe diarrheal disease.

Giardia is diagnosed by finding the parasite in the feces. It is shed intermittently so repeated examinations may be necessary. It is not found by the flotation methods used for other intestinal parasites—special techniques must be used.



A veterinarian majors in media

PET CARE INFORMATION OVER THE AIR WAVES ood morning, this is Dr. Marc Rosenberg 'Speaking About Pets'," is heard every Saturday morning on Philadelphia radios. At 9:06 a.m. Marc A. Rosenberg, V.M.D. (V'71) begins a light-hearted, two-hour talk show

which dispenses advice to pet owners in the Delaware Valley. "WCAU-AM took a big step when they opened the twoway radio format to a program solely devoted to pet care," he said. "Ten years ago, a major station wouldn't have heard of it. Now it is a popular program. We get between 1,000 and 2,000 calls per show."

Dr. Rosenberg is no stranger to the microphone. His media career, or sub-specialty, as he calls it, began in 1977 when he auditioned for Evening Magazine, a 30-minute TV show. "They needed a veterinarian. so I took my dog, Labbie, a box of baking soda, and a toothbrush and demonstrated on camera how to brush a dog's teeth," he explained. "It was a success and Labbie and I were hired."

This was the beginning of a second career. Now Marc Rosenberg is not only a card-carrying member of the Screen Actors Guild and the American Federation of Television and Radio





Artists, but he has an agent, owns a company specializing in multi-media pet care information, and he is seen nationally as the veterinarian who provides pet care tips on dog food television commercials featuring Lorne Greene. While active in radio and television, he has maintained his position in a small animal practice in Cherry Hill, NJ, which he owns with two classmates, Charles H. Chase III and A. Hunter Wilcox.

Dr. Rosenberg attributes his media success to the philosophy that pet information can be presented with a light-hearted twist in order to attract listeners and viewers. "People are very receptive to an expert who is like the person next door," he said. "That's why I tell jokes and include animal-oriented puns in every piece I do. It is something I observed in veterinary school: there were lecturers who used a light-hearted approach when delivering their material and we students looked forward to it."

He studied English literature as an undergraduate and writes all of his own material. "I have always done it, starting when I worked on Evening Magazine and when I taped the Pet Care Reports for KYW. Now I write the pet care tips used in the dog food commercials."

As the pet care expert on Evening Magazine he put in 250 appearances. It was not his only television exposure. He and Labbie also appeared on Garden State Tonight, a public television show aired in New Jersey. His voice soon became familiar to Philadelphia-area radio listeners who heard his pet care reports several times a day on KYW radio. He taped 500 such reports and to date they have been aired 2,000 times. The South Jersey Veterinary Medical Association recognized the service he performed and named him "Veterinarian of the Year" in 1981. He serves on an advisory board for a major dog food company and is a consultant to a publisher of veterinary

books. He also has written a pet care column for Teletext, a video cable program produced by Time Inc. "There are three or four other veterinarians who work in the media," he said, "but none has worked extensively in radio, television, and the print media."

Dr. Rosenberg enjoys being part of radio and television. "It is hard work; sometimes it takes hours to tape a short spot. In fact, some of the ads had to be redone ninety times. However, I can reach many pet owners." He feels that his media work is important to the well-being of animals as he reaches a large public and provides information about pet care people can easily understand. "The goal is to communicate and to have the information understood by the listener or viewer," he said.

He also sees patients at the clinic in Cherry Hill. "You have to remain active in order to provide up-to-date information," he explained. "Besides, I enjoy practicing veterinary medicine and seeing clients." He teaches at the Veterinary School where he is an adjunct associate in medicine. His primary interest is the bond between people and their companion animals. He is a member of the Center for the Interaction of Animals and Society. A number of years ago he participated in a study of owners who had lost their pets and he now takes an active role in counseling clients whose pets have died. "This is an important supportive role for the veterinarian," he said.

Marc Rosenberg lives in Cherry Hill with his wife Karen and four children, Tom, Jane, Dan, and Samuel. A dog and cat complete the family.

Currently he is exploring the production of a public television program devoted to pets and their care. So don't be surprised if one day you turn on the television and hear "Good afternoon, this is Dr. Marc Rosenberg...." Who knows, he may eclipse Julia Child. After all, in this country there are more pet owners than French cooks.



A CLINIC DEVOTED TO INHERITED EYE DISEASES



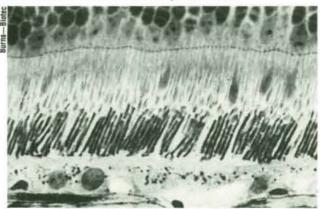
A UNIT WHICH WILL PROVIDE CLINICAL EXAMINATIONS AND GENETIC COUNSELING

nherited eye diseases occur in animals. They frequently are disabling and present an expensive and frustrating problem to the owner or breeder. To study such disorders in great depth, the School of Veterinary Medicine, University of Pennsylvania, established a new service for the diagnosis and prevention of inherited eye

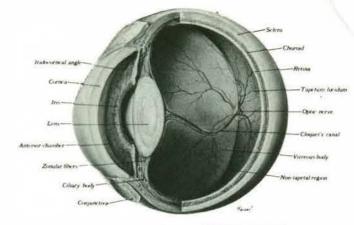
diseases (Inherited Eye Disease Studies Unit). The clinic, headed by Dr. Gustavo D. Aguirre, associate professor of ophthalmology, is part of the Section of Medical Genetics at the School. "It is a unique clinic," explained Dr. Aguirre. "It is totally devoted to inherited eye diseases in cats, dogs, horses, and other species."

The Inherited Eye Disease Studies Unit will provide clinical examination and genetic counseling as well as continue to engage in extensive research. This work will be done in collaboration with members of the Section of Medical Genetics, and with Drs. Gregory Acland and L. Stramm, both of the Scheie Eye Institute, University of Pennsylvania. "We draw upon the many resources here at the School," Dr. Aguirre said. "We can provide various levels of examination, ranging from a routine ophthalmological exam to an electroretinogram. We can do pedigree analysis, laboratory studies for detailed examinations of the cells of the eye, as well as tissue culture studies and electron microscopy."

Within this new service Dr. Aguirre plans to study the course of the many different inherited eye diseases and their mode of inheritance. This information may help in the development of early detection methods. It can also be used to devise a selective breeding program to eliminate or reduce the incidence of inherited eye diseases.



Section of retina showing major regions that can be affected by inherited diseases



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Now inherited canine eye diseases are frequently diagnosed at screening clinics organized by dog clubs. Here breeders and owners bring puppies and adults to be examined by veterinary ophthalmologists. Such clinics have been very important in eliminating affected animals from breeding programs in cases where the disease is apparent in young dogs. But inherited eye diseases are complex and may require more specialized equipment for early identification of affected animals. They vary in ophthalmological manifestation from breed to breed. It is possible to detect retinal disorders by means of an ophthalmological exam in Irish setters, and collies by the age of six months. In Norwegian elkhounds such an exam does not reveal the disease until the dog is one year of age or older. In poodles no signs are evident until the animals are between three to five years old. This late detection poses a serious problem. Animals are reared at great expense, they become family companions, show careers may be started, and some dogs may have been incorporated into a breeding program.

"Many eye diseases are inherited recessively," Dr. Aguirre said. "Some animals are carriers and when two such dogs are mated, some of the offspring will show the disease, some will be carriers, and some will be genetically normal. Inherited eye diseases can affect any part of the eye. They may occur in the retina, the cornea, the optic nerve, or other parts of the organ.

Much research has been done on diseases affecting the retina. Commonly these are referred to as progressive retinal atrophy (PRA). The term encompasses a large number of outer retinal degenerations affecting a wide variety of purebred and mixed breed dogs. According to Dr. Aguirre, the name defines the end-stage retinal disease, when the ophthalmologic abnormalities can be seen. The inheritance of PRA has been studied in Irish setters, Norwegian elkhounds, miniature and toy poodles, collies, and cocker spaniels, and in each breed was found to be inherited as simple recessive. Some years ago, Dr. Aguirre and his associates here at the School perfected a test to detect the disease at an early age by means of electroretinography (ERG).

Here the electric impulses emanating from the rods and cones of the eye are measured. Rods and cones are photoreceptive cells in the retina and are essential for vision. In dogs with PRA these cells develop abnormally and then degenerate. Researchers found that electric impulses in those dogs which will later develop the disease are different from impulses in normal dogs. This difference can be detected in very young animals, long before any ophthalmological signs appear. ERG diagnosis for PRA can be made by six weeks of age for Irish setters, Norwegian elkhounds, collies, and miniature schnauzers. In the poodle and the American and English cocker spaniel, the disease can be detected at a later age, closer to nine or ten months. "The ERG helps us identify the afflicted animals early," Dr. Aguirre said. "Then they will not be incorporated into breeding programs. The test also helps to find animals which can be used for test breeding to identify other carriers." Currently Dr. Aguirre and Dr. Gregory Acland, assistant professor in the Department of Ophthalmology, School of Medicine, are working on developing a procedure by which late onset PRA in poodles and other breeds can be identified at an age earlier than ten months. Electrophysiology is Dr. Acland's special interest and he has designed the computer program at the School used to evaluate and interpret the ERG results.

Studies by Drs. Aguirre and Acland have found that PRA is not one disease but a different one in each breed. Its course, during the maturation of the eye, is distinct for each breed studied. When a dog is born, its eyes are not fully developed. The retina is immature at birth and it develops during the first six weeks of life. By age six weeks it is similar in function and structure to that of an adult. The ERG can detect abnormalities in the rod and cone structure while the eye is maturing and this helps to identify dogs with the disease. It was found that in afflicted Irish setters the rods and cones do not develop normally; it was also found that affected animals had a metabolic abnormality within the rods which resulted in the death of the visual cells. In the miniature poodle rods and cones appear to develop normally though their response to light stimuli appears to be at lower levels. It is thought that PRA in other breeds also represents distinct diseases.

The ERG can detect abnormalities in the rod and cone structure while the eye is maturing and this helps to identify dogs with the disease.

The study of PRA has implications not only for dogs but also for humans. It appears to be similar to retinitis pigmentosa, an eye disease affecting people. Here too, the disease varies and appears to be a number of diseases rather than a single one. Dr. Aguirre and his colleagues work closely with the Scheie Eye Institute, a part of the Ophthalmology Department at the Medical School where he is on the staff and has a laboratory.

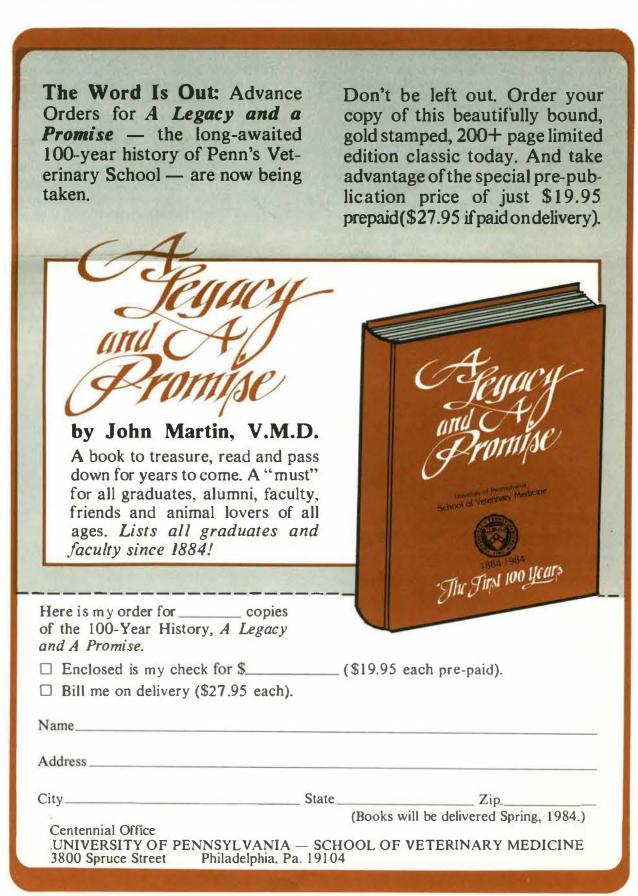
Other inherited or potentially inherited eye diseases in dogs affect the eyelids (entropian, ectropian, distichiasis), cornea (dystrophy, endothelial decompensation), iris (persistent pupillary membrane), lens (cataract), and vitreous "Some animals are carriers and when two such dogs are mated, some of the offspring will show the disease, some will be carriers and some will be genetically normal.

(persistent tunica vaculosa). Even glaucoma, a disease of defective intraocular pressure regulation, can be inherited. Not every dog breed is affected with these many different types of eye diseases. Instead, certain diseases specifically affect some of the breeds and are known as breed related ocular diseases.

Cats, too, have inherited eye diseases, though it appears to be not as common as in dogs. Retinal degeneration is a potential concern to Abyssinian breeders since the disease has been shown to affect a large number of the breeding stock in some European countries. On the other hand, central retinal degeneration (FCRD) which is found in many cat breeds, has been shown by Dr. Aguirre and associates not to be inherited. The disease is the result of a deficiency of a specific nutrient (taurine) that must be present in cat foods.

Inherited eye diseases are a complex problem. The new clinic will be of great help to veterinarians, breeders, and owners. It can provide researchers with many more cases from which the different conditions can be studied on all levels, ranging from ophthalmologic examinations to the study of tissues, the study of electric impulses, the study of cell types and cell culture, in the hope of finding a way to identify carriers of the diseases, and as a means to identify afflicted animals early in life.

The clinic will see patients on Tuesdays; appointments can be made by calling (215) 898-4680.



THE SECOND CENTURY FUND

n October 13, 1983 the Second Century Fund campaign to raise \$41.5 million for the School of Veterinary Medicine, University of Pennsylvania, will be officially launched.

As it looks toward its second century of leadership in animal medicine and the biomedical sciences, the School and its Board of Overseers have identified a number of crucial needs. They seek endowments and funds to enable the School to continue leading the veterinary profession in teaching, research, and service.

The campaign, which extends until 1988, will raise funds for the endowment of three professorships each, at New Bolton Center and at the Philadelphia campus. in Clinical Studies. Funds will also be sought for three chairs in the Basic Science Departments, animal biology, and pathobiology. The campaign will also raise endowment funds for the deanship, for an Interdepartmental Fund for Graduate Research and Training, and for operations of various facilities at VHUP as well as New Bolton Center.

Funds will also be raised for a number of capital projects ranging from a contagious disease isolation unit at New Bolton Center to an expansion of the library at the Philadelphia campus. Contributions will also be sought to establish a scholarship fund, ensuring that talented students will continue to be able to afford the type of veterinary medical education offered at the University of Pennsylvania.

As the School of Veterinary Medicine prepares to celebrate its first hundred years. we see remarkable opportunities for growth and for a greater role in the mainstream of American life. Working with livestock and poultry industries, our scientists will continue to investigate ways to increase the numbers and improve the health and productivity of food animals to help meet the nutritional requirements of the more than six billion people who will inhabit the earth by the year 2000, and as society becomes increasingly sensitive and demanding about the quality of our foods and increasingly intolerant of potentially dangerous food additives and of poisons which contaminate the environment veterinary medicine must assume greater responsibilities and greater leadership in preventive medicine and public health.

Today more than half the families in the United States own a pet. Millions of citizens derive pleasure from horses and other sporting animals. Society has become increasingly aware that, beyond companionship, pet animals may in some fundamental way protect against somatic disease and early death.

The nation's twenty-five schools of veterinary medicine enroll about 7.000 students; 440 of those are studying at the University of Pennsylvania School of Veterinary Medicine. Only Pennsylvania and two smaller schools are privately operated; the others are state-owned and receive through public appropriations most of their funds for operation and the construction of classrooms, laboratories, and clinical facilities. Pennsylvania, though it receives a modest

ENDOWMENT	
Nine professorships at \$1.25 million each	<u>\$11,250,000</u> 3,750,000
 Three chairs in Clinical Studies at New Bolton Center Three chairs in Clinical Studies at Philadelphia 	3.750.000
• Three chairs in the Basic Sciences (Animal Biology and	5.150.000
Pathobiology)	3.750.000
l'he Deanship	1,500,000
The Interdepartmental Fund for Graduate Research and Training	2,000,000
Veterinary Hospital of the University of Pennsylvania	5,500,000
Emergency Service	1,000.000
 Surgery/Anesthesia 	1,000,000
 Radiology 	000,000,1
Intensive Care Unit	750,000
Medical Genetics	500,000
Oncology	400.000
 Viral Diagnostic Laboratory 	250,000
 Orthopedic Surgery 	200.000
 Wildlife and Exotic Animal Medicine 	150,000
 Ten Clinical Examination Rooms at \$25.000 each 	250.000
New Bolton Center	6,500,000
Food Animal Program	1,500,000
Surgery Anesthesia Services	1,000,000
 Four hospital barns at \$500,000 per barn 	2.000,000
Clinical Reproduction	800,000
Radiology	800.000
Intensive Care Unit	150,000
 Cardiopulmonary/Sports Medicine 	150,000
 Infectious Disease Laboratory Services 	100.000
TOTAL ENDOWMENT	\$26,750,000
CAPITAL PROJECTS	
Old Quadrangle (Philadelphia)	3,251,000
Laboratory of Cancer Research	300.000
• Laboratory of Research in Reproductive Physiology	200,000
Anatomy Research Laboratory	486,000
Biochemistry Research Laboratory	360,000
Microbiology Research Laboratory	270.000
Parasitology Research Laboratory	306,000
Pathology Research Laboratory	324,000
Toxicology Research Laboratory	306,000
Physiology Research Laboratory	299,000
Surgical Teaching Laboratory	400.000
New Bolton Center	6,522,000
Contagious Disease Isolation Unit	4.449.000
Intensive Care Unit	456.000
Biomechanics Laboratory	232,000
Othopedic Hospital Barn	164,000
	221,000
• Farrier Shop	3,500,000
Farrier Shop C. J. Marshall Library (Philadelphia): Expansion	
	\$13,273,000
C. J. Marshall Library (Philadelphia): Expansion	\$13,273,000 1,500,000

annual state appropriation, has had to rely principally on private contributions, general University funds, and the second-highest veterinary medical tuition in the United States.

Despite austere financial circumstances and the fact that veterinary medicine lacks the third-party payers and subsidies taken for granted in other medical services, the School of Veterinary Medicine stands on the threshold of its most productive era.

At the University of Pennsylvania, the School of Veterinary Medicine benefits from the full range of biomedical research, teaching, and cooperation and interaction in one of the world's great medical centers. It has unique contributions to make in the areas of food supply, disease prevention (both animal and human), detection of environmental toxins, and the care of agricultural, laboratory, companion, exotic, sporting, and zoo animals. Through animal models veterinary medicine is making possible studies of human disease such as cardiac problems, elevated blood pressure, and cancer. Some 150 diseases which can be communicated from animals to humans also fall within its purview. A new field pioneered by the University of Pennsylvania School of Veterinary Medicine involves preserving the health of aquatic animals, of growing importance in the world's food supply.

The frontiers of veterinary medicine are virtually without limit. The School of Veterinary Medicine, as it enters its second century, seeks additional financial resources to expand these frontiers and continue to educate the skilled practioner who will put his or her growing knowledge to use for the benefit of animals and mankind.

99 DOWN AND 1 TO GO

continued from 6

Allam. "So six of us, Dr. David Detweiler, Dr. Charles Roker, Dr. John McGrath, Dr. John Martin, Dr. Donald Lee, and myself, banded together and decided we would stay with the School and make it work. We as a group felt responsible to build the School to acceptable academic heights. This was accomplished. Of the six faculty meeting in 1953, Dr. Lee has retired and I am partially retired. The remaining four are still active.

In the fall of 1952 I was invited to appear before the trustee's committee on hospital and medical affairs to talk about the Veterinary School. Not being aware of what I was expected to report, and since President Stassen had said the new farm in Chester County had infertile soil, I opened a brown bag and exhibited large ears of corn—then presented a blue rubbon for first prize corn raising contest in Chester County. Chairman Orville Bullitt was sufficiently impressed to become a staunch supporter of the rural campus and the School."

The Center continues to grow and thrive through contributions from philanthropic organizations and from animal loving people. The very active and dedicated alumni financed the purchase of three parcels of land and the construction of Alumni House on the campus, Dr. Allam noted.

Another proud accomplishment as dean was the establishment of the core curriculum, which allows students today to choose from a number of elective studies after completing a year and a half of core subjects.

Dr. Allam's list of professional honors and distinctions is long. His awards include: Veterinarian of the Year from both the American Animal Hospital Association and the Pennsylvania Medical Association, 1957 and 1964, respectively; American Veterinary Medical Association Award, 1969; Pennsylvania Veterinary Medical Association's Distinguished Veterinarian Award, 1977; and the University of Pennsylvania Veterinary Medical Alumni Society Citation, 1982.

Since 1977, Dr. Allam has been a consultant on Veterinary School matters. He and Mrs. Allam continue to play an important role in the School's development and public relations activities. While they share an interest in preserving the history of the Allam House, Mrs. Allam has made it clear that Dr. Allam is the horse lover in the family.

Dr. Allam summed up his career accomplishments with a tribute to his wife. "When you're involved in a practice and in administrative life, it takes a strong life partner to make it work."



British Veterinarians Honor Dr. Allam

On Tuesday, June 7, 1983, Dr. Mark W. Allam, former dean of the School of Veterinary Medicine was inducted as an Honorary Associate of the Royal College of Veterinary Surgeons at the annual general meeting of the College in the Hyde Park Hotel, London, England.

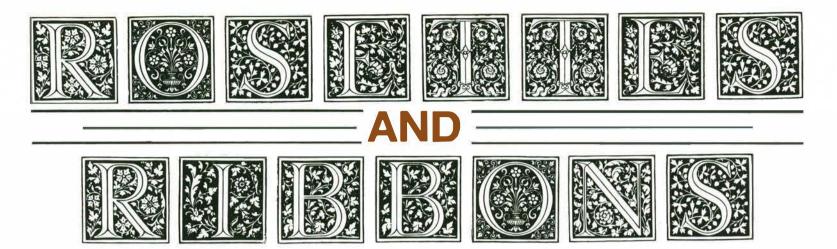
Dr. Allam, accompanied by his wife, Lila, spent twelve very busy days in England and Scotland. Dr. Colin Johnstone, assistant professor of parasitology in the Veterinary School, and a native of England, arranged much of the itinerary for the visit and drove the Allams to various sites. Included in their trip were visits to Sir William Weipers, former dean of the Glasgow Veterinary School (Dr. Johnstone is a graduate of this school), and Dr. E. J. Lawson Soulsby at Cambridge University. Dr. Soulsby is former professor of parasitology in the Veterinary School. While in the Cambridge region the group visited the British Racing Museum and the National Stud at Newmarket.

Dr. Johnstone drove the Allams through beautiful Yorkshire country, a region familiar to

many of our readers who are fans of the longrunning television series, All Creatures Great and Small. A highlight of the trip was a dinner with Dr. Alfred Wight (James Herriot), his wife Joan (Helen Herriot), and members of the cast of the TV series. These included Drs. Donald Sinclair (Siegfried Farnon) and Brian Sinclair (Tristan Farnon). Also attending was Dr. James Wight, a veterinarian who is engaged in practice with his father, Dr. Alfred Wight. Dinner was held at the Three Tuns Hotel in Thirsk, Yorkshire. Following the dinner Dr. Wight and the others autographed a copy of his newest book, The Best of James Herriot. On the following day Dr. Brian Sinclair and the Allams visited some of the other sites depicted in the TV series and eloquently described in Dr. Wight's books.

Lest we forget. Lila Allam had a full day set aside for shopping in London and Dr. Allam bought two hats, a part of his attire for which he is famous!





A joint University Scholars program has been initiated by Pennsylvania State University and the Veterinary School. The purpose of this program is to identify, each year, at the Pennsylvania State University a limited number of outstanding students whose career objectives are to attend the School of Veterinary Medicine at the University of Pennsylvania. Students selected for the program will be granted early admission to the Veterinary School. The program is supervised by a Screening Committee at Penn State and a joint University committee comprised of faculty from both Penn State and the Veterinary School. Final decision as to accepting-rejecting a given student resides with the Admission Committee at the School of Veterinary Medicine.

mology, received a \$9,500 grant from ALPO to conduct studies on progressive retinal atrophy in dogs. Two other faculty have received grants from ALPO for the current year. Dr. Lawrence T. Glickman, associate professor of epidemiology, is the recipient of a grant for \$10,500 to investigate the relationship of diet to mammary cancer in dogs. Dr. David S. Kronfeld, Elizabeth and Whitney Clark Professor of Nutrition. has received a \$30,000 grant to continue a study of stress in dogs and to complete studies on calcium absorption and glucose kinetics in dogs. Dennis Bobita, director of Technical Services for Allen Products Co., Inc., indicates that this year there will be a total of \$100,000 in ALPO research grants for investigations in the field of pet animal health and nutrition. Dr. Lawrence T. Glickman has been named recipient of a \$1,000 Ralston Purina Small Animal Research Award for his work in the area of epidemiology.

Dr. Gustavo D. Aguirre,

associate professor of ophthal-

Dr. Glickman is also the recipient of a Fulbright grant to participate in the binational program of educational exchange between the United States and France. He will pursue research in epidemiology at the Laboratoire de Parasitologie et d'Ecologie Humaine, CNRS, in Toulouse, France.

Dr. Benjamin G. Brackett, professor of animal reproduction, Department of Clinical Studies, New Bolton Center. participated in the Endocrine Conference held at Pennsylvania Hospital, Philadelphia. He also participated in a conference on Reproductive Strategies for Endangered Wildlife. hosted by the Cincinnati Wildlife Research Foundation. Dr. Brackett was one of the organizers of a workshop "Fertilization and Embryo Transfer in Animals," conducted by the Department of Health and Human Services. He recently was appointed to serve a twoyear term on the Medical Services Scientist Training Program Advisory Committee at the School, which began July 1. 1983.

The Department of Pathobiology has received a grant of \$131,924 from the United States Department of Agriculture for support of a project entitled "Infectious Bovine Rhinotracheitis Virus: New Approaches to the Analysis of Latent Infections." The project is under the direction of Dr. William C. Lawrence, associate professor of microbiology.

Dr. Corinne Sweeney, Dr. Chuck Benson, and Dr. Robert H. Whitlock received two grants to investigate Strangles (Strep. equi) infections in horses; one awarded by the Standardbred Breeders and **Owners Association of New** Jersey and the other from a private source. The research will focus on the determination of the carrier state for Strep. equi and the various clinical manifestations of the disease as related to possible strain differences.

Dr. Debra Deem Morris, lecturer in large animal medicine, recently received a threeyear competitive USDA grant on *E. coli* endotoxemia in calves. She and Dr. Robert H. Whitlock are collaborators on the grant with scientists from Washington State University at Pullman.

Dr. Lawrence F. DeGeorge, resident in large animal medicine, has received support to continue his studies on electromyography, especially as it relates to the diagnosis of botulism. He will collaborate with scientists from the Michigan Department of Public Health to obtain more data to facilitate licensing their current experimental botulinum Type B toxoid.

The following appointments were made in the Department of Clinical Studies, New Bolton Center: Dr. Lin V. Klein was appointed associate professor of anesthesia; Dr. James A. Orsini and Dr. Eric P. Tulleners were appointed assistant professors of surgery.

Dr. Angeline Warner, resident in large animal medicine in the Department of Clinical Studies, New Bolton Center, received the Squibb Resident Award.

Dr. Jon Palmer, Dr. Charles Benson, and Dr. Robert H. Whitlock were awarded a small research grant to investigate the new seasonal equine malady referred to as "Potomac Valley Fever," or Acute Diarrheal Syndrome of horses in the Potomac area of Maryland. The investigation involves the University of Maryland, the Maryland State Department of Agriculture and Virginia Polytechnical Institute at Blacksburg. Last year over 100 horses contracted the disease with nearly 30 percent mortality. The cause is unknown.

Dr. Gerhard A. Schad, professor of parasitology, attended a symposium on "The Current Status of Unresolved Problems in Parasitic Diseases" held at the National Institutes of Health in Bethesda, MD, July 18 and 19.

Dr. Peter F. Jezyk, associate professor of medicine (medical genetics) will discuss "Metabolic Diseases of the Dog and Cat" at the 32nd Gaines Veterinary Symposium at the University of Minnesota, October 25, 1983.

Dr. Robert J. Rutman, professor of biochemistry, was co-chairperson of a symposium on DNA Reactive Anti-Cancer Drugs at the 1983 Annual Conference of the American Association for Cancer Research in San Diego, March 25 to 28.

At its spring meeting the AVMA Council on Education reviewed the annual interim report of the University of Pennsylvania School of Veterinary Medicine and voted to continue the School on full accreditation status.

Dr. Ernest Witte (V'42) was elected as an honorary member of the American Veterinary Epidemiology Society, and was presented with the award at the annual AVMA meeting in July 1983. Dr. Witte is Epidemiologist with the Pennsylvania Department of Health, and holds an appointment as lecturer in epidemiology and public health in the Veterinary School.

Terry F. Miller, a senior student, has been awarded the 1983-1984 Bide-A-Wee Home Association's Long-Sondheimer Scholarship, The New York-based nonprofit animal welfare organization's award provides two full scholarships annually for senior students-one at the University of Pennsylvania and one at Cornell University. Terry Miller is a strong advocate of animal rights who believes that the first priority in veterinary practice should be the care and welfare of animals.

Terry received his preveterinary education at Penn State University where he was vice president of the Pre-Veterinary Club, vice president of the Wildlife Society, president and co-founder of the Golden Key National Honor Society. In 1982, Terry received a National Institutes of Health Summer Research Grant. His home is in Lynnport, PA.

The Long-Sondheimer Scholarship is Bide-A-Wee's way of acquainting veterinary students with public service early in their careers; it is hoped that scholarship recipients will practice at a Bide-A-Wee clinic when they graduate. Dr. Scott D. Moroff, last year's University of Pennsylvania scholarship recipient began work at Bide-A-Wee's Wantagh, Long Island Clinic this summer.

Jacqueline Metzler, a junior student, has been awarded two scholarships. One is from the William Goldman Foundation of Philadelphia for \$500, and the other was awarded by the Windham County Kennel Club, Inc. of Windham County, Connecticut, for \$1,000.

Dr. Jon Palmer, lecturer in Large Animal Medicine, was awarded diplomate status in the American College of Veterinary Internal Medicine at the AVMA meeting, July 19, 1983.

Dr. Robert H. Whitlock, professor of medicine and chief, Medical Services. New Bolton Center. was recently installed as chairman, Board of Regents, of the American College of Veterinary Internal Medicine.

PROFESSIONAL & OWNER/BREEDER CONTINUING EDUCATION PROGRAMS

The Continuing Education Committee at the School has a problem ... so many exciting events are planned for 1984 that there are not enough months in the year to schedule our programs!

Six professional programs have been arranged for the Fall of 1983. However, to allow the Continuing Education Office to concentrate its effort on two major conferences to be held during 1984. no other professional programs will be planned until January 1985.

Over 7,000 continuing education calendars were mailed to practitioners in the mid-Atlantic region during early August. While our first course with Dr. Anne Chiapella on Gastrointestinal Medicine has taken place. there is still time to register for five other courses (These are for Veterinarians only):

SURGICAL APPROACHES TO THE BONES & JOINTS OF DOGS

Laboratory and lecture with Dr. Charles Newton-October 27 continued on 16



Terry Frantz Miller, recipient of the 1983-84 Bide-A-Wee Home Association's Long-Sondhelmer Scholarship.



Dr. Lawrence T. Glickman (left) of the University of Pennsylvania receives the Ralston Purina Small Animal Research Award from Dr. Paul F. Landis. President of the American Veterinary Medical Association. Dr. Glickman. Associate Professor of Epidemiology and Chief. Section of Epidemiology and Public Health in the Department of Clinical Studies, was recognized for his work in the area of epidemiology.

EVENTS

OCTOBER

27 Surgical Approaches to the Bones and Joints of Dogs*, School of Veterinary Medicine, Philadelphia

NOVEMBER

2	Ear/Nose/Throat Disease*. School of Veterinary Medicine, Faculty Club, Philadelphia
5	SCVMA Square Dance, New Bolton Center
9	Newer Diagnostics and Therapeutics in Equine Medicine and Surgery New Bolton Center
9	AAHA Region I Meeting, Cap Cod, Massachusetts
0	Bovine Reproductive Workshop*, Hershey, PA
2	Pennsylvania Hunt Cup Carriage Drive, New Bolton Center
6	Ophthalmology for the Small Animal Practitioner*, School of Veterinary Medicine, Faculty Club, Philadelphia
8	AABP National Meeting, Oklahoma City

DECEMBER

- **b** AAEP National Meeting, Las Vegas, Nevada
- 9 Auxiliary Auction, School of Veterinary Medicine, Philadelphia
- 10 Christmas Dinner Dance, New Bolton Center

JANUARY

8	Pennsylvania Farm Show, Harrisburg, PA
26	Penn Annual Conference*, Franklin Plaza Hotel, Philadelphia
28	Canine Symposium for Owners and Breeders, VHUP, Philadelphia

FEBRUARY

- 13 Annual Meeting of the American College of Veterinary Surgeons, School of Veterinary Medicine, Philadelphia
- 19 Western States Conference, Las Vegas, Nevada

MARCH

31

- 3 New Jersey VMA Annual Meeting, Atlantic City, NJ
- **24** Feline Symposium for Owners and Breeders, VHUP, Philadelphia
 - American Animal Hospital Association Annual Meeting, San Francisco, CA

*denotes continuing education program for practitioners

continued from 15

EAR, NOSE & THROAT DISEASE

Lecture with Drs. Harvey, O'Brien and Venker Van Haagen (State University of Utrecht)—November 2

NEWER DIAGNOSIS AND THERAPEUTICS IN EQUINE MEDICINE & SURGERY

Lecture with Dr. Norman Rantanen (Washington State University Sch Vet Med) and New Bolton Center (Staff-November 9

BOVINE REPRODUCTION WORKSHOP

This program is co-sponsored by Penn State and the University of Pennsylvania. Speakers include members of the faculty from both Schools. Laboratory and lecture. November 10-November 11

OPHTHALMOLOGY FOR THE SMALL ANIMAL PRACTITIONER

Lecture course with Dr. Gus Aguirre and Dr. Steven Gross (Animal Medical Center)—November 16

OWNER/BREEDER PROGRAMS

Canine Symposium—Saturday January 28, 1984 Feline Symposium—Saturday March 24, 1984

PENN ANNUAL CONFERENCE

New Date: Thursday January 26 & Friday January 27, 1984

New Location: Franklin Plaza Hotel Center City Philadel phia

Due to the increasing number of practitioners and exhibitors attending the Penn Annual Conference, we have moved to larger quarters. Last year over 400 veterinarians and sixty exhibitors helped make the conference a success. We have arranged for fantastic rooms rates at the Franklin Plaza (better than last year's rate) and a program with some new formats. The Conference brochure will be mailed in November—watch for your copy.

1984 SCIENTIFIC CONFERENCE

The piece de resistance of the 1984 Continuing Education calendar will be a three-day Scientific Conference held on October 15, 16, and 17 at the Bellevue Stratford Hotel in Center City Philadelphia. The Pennsylvania Veterinary Medical Association has deferred its Annual Meeting in order to help the School celebrate its 100th anniversary.

Twenty-five of this country's most respected and knowledgeable individuals will be brought together for this Conference. A partial listing includes: Drs. Charles Capen, Susan Cotter. Stephen Ettinger, Ollie Ginther, Peter Ihrke, Shirley Johnson, Doug Leach, Reuben Mapletoft, Joe Morgan, Neils Pedersen, Donald Piermattei, Otto Radostits, John Reif, Glenn Severin, Donald Walker and Wayne Wingfield.

An exciting and informative spouse program is planned. Professional tour guides will personally escort our guests through historic Philadelphia and many other points of interest in the surrounding area.

On behalf of the administration, students, faculty and staff, we would like to thank our many friends and alumni for their continued support of the Continuing Education program. Your input and comments are important in keeping the program updated and interesting.

If you have any questions or comments, please contact: Ashra Markowitz, Coordinator of Continuing Education at (215) 898-1882.

VHUP Referral

RESOURCE UPDATE—VHUP

Orthopedics: The clinic days have been changed to Wednesdays and Fridays.

Exotics: The clinic days have been changed to Mondays and Wednesdays.

Inherited Eye Diseases Studies Unit Clinic: Tuesdays

Appointments for these clinics as well as for all the other clinics at VHUP can be made by calling (215) 898-4680.

Scheduled tours of VHUP have been discontinued for the time being.

Penn Annual Conference—1984 Change of Date and Location

The new dates for the 1984 Penn Annual Conference are Thursday and Friday, January 26 and 27, 1984. The new location is the Franklin Plaza Hotel, Two Franklin Plaza, Philadelphia, PA. For further information contact: Ashra Markowitz, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA, 19104. Call (215) 898-4234.

Bellwether

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