

The Referring VETERINARIAN

VETERINARY MEDICAL TEACHING HOSPITAL ♦ COLLEGE OF VETERINARY MEDICINE ♦ CORNELL

VMTH NEWS

CENTENNIAL AND ANNUAL CONFERENCE

The Gala Centennial Celebration and Annual Conference for Veterinarians was held at the College on March 20-22, 1994, with a large number of alumni and other friends of the College turning out for this auspicious event. According to the Office of Continuing Education, 317 veterinarians, 108 spouses and 49 exhibitors attended the Annual Conference, and 64 students and 82 staff, faculty and friends attended the Centennial Celebration, for a total of 653 participants. The continuing education program featured all-Cornell-related speakers (33 individuals) and the feedback has been that this was a very successful program.

The highlight of the conference was a Dinner Dance/Ball held in Barton Hall on the evening of Monday, March 21, the actual centennial date of the signing of the College Charter.

The popularity of the March date for the conference has resulted in the scheduling of next year's conference for March 18-20, 1995. Please mark your calendars.

NEW HOUSE STAFF

As a result of the matching program held this year, the Veterinary Medical Teaching Hospital attracted a group of 18 new house staff who will be joining the hospital between mid-June and early July. The new interns and residents come from 10 different colleges of veterinary medicine. In the next issue we will provide you with the names and service locations of each new intern and resident.

CONSTRUCTION UPDATE

Construction on the new Veterinary Medical Center is progressing rapidly. The EDO (Estimated Date of Occupation) is about a year from now. Undoubtedly, there will be some disruption of normal schedules when the big move occurs. We will keep you posted as to progress in this area as we get closer to the actual moving date.



Dr. Ned Dykes (with horse) and Mr. Bob Wallace perform a carpal equine bone scan on an equine patient.

EQUINE NUCLEAR IMAGING GIVES CLOSER LOOK AT LAMENESS

Nuclear imaging has been offered by the Radiology Service at Cornell University's VMTH since the late-70s when Dr. Francis Kallfelz adapted the procedure for use on horses. Since then it has proven to be an invaluable resource in the evaluation of the equine athlete. About 125 to 150 horses are scanned each year and the service gets heaviest use in the spring, summer and fall, when horses in the Northeast are most active.

"Bone scanning in horses is performed for the evaluation of the musculo-skeletal system. It is really quite similar to bone scanning as it is performed on people with some modifications for the species," explains Dr. Ned Dykes, Assistant

Professor of Radiology at the VMTH, who interprets the scans. "A tracer compound is used that localizes in bone. Quantitatively, more of this material goes to those portions of the bone that are injured, repairing from injury or infected."

The tracer compound is chemically linked with an isotope, technetium, which undergoes radioactive decay by emitting gamma rays. The radiation is detected by a gamma camera which makes a picture of the pattern of the distribution of this material through the bone. Because the compound localizes in those areas of the bone which are more active because of injury, etc., more gamma rays are emitted from those portions of the bone.

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Drs. Bill Miller and Danny Scott (3rd and 5th from left) and Dr. Mary Bagladi (2nd from right) perform an allergic sensitivity test on a canine patient.

STATE OF THE SKIN

Veterinarians in the Dermatology Service at Cornell University's VMTH examine 1,600 animals with skin disease a year. The majority of the cases involves small animals like dogs and cats, but the department also diagnoses and treats a fair number of large animals, particularly horses and some goats. Two faculty members, both diplomates of the American College of Veterinary Dermatology, Dr. Danny W. Scott and Dr. William H. Miller, Jr., head up the internationally-recognized service. Along with resident Dr. Mary Bagladi, they provide diagnosis, therapy, and follow-up care in close consultation with owners and referring veterinarians.

Dr. Scott cites several reasons that veterinarians refer cases to the VMTH. Most commonly, the animal has already undergone extensive treatment yet continues to exhibit symptoms. Typically, this is because the referring veterinarian hasn't been able to diagnose all of the contributing problems. In other instances, owners want the peace of mind that comes with a second opinion.

Dr. Scott, who has been on the hospital staff since 1971, acknowledges that there are over 200 recognized skin diseases, which are commonly caused by allergies, ectoparasites, staphylococcal infection, or hormonal imbalances. Sources of allergens include flea saliva, airborne particles (house dust, various molds, and pollens), and food, which is the most difficult to diagnose.

"Food allergies require lots of time and patience on the owner's part. The first thing we do is put the animal on a

restricted non-allergenic diet for a few weeks. In dogs, that might mean a diet of fish and potatoes, or even tofu and peanut butter. Typically, this is something the animal has never eaten before and certainly something most owners never cook for their animals. In some cases, we gradually add back dairy products, wheat, soy, beef and chicken and see which ingredient causes a reaction. Sometimes it is a combination of foods."

There has recently been an explosion of commercially available "hypoallergenic" diets. "Regrettably, with few exceptions, there is no documentation of the efficacy of these diets," says Dr. Scott. "Where such documentation is available, it has been shown that such diets fail to identify about 25 percent of all food allergic dogs and cats. If you want 100 percent, there is still no substitute for carefully chosen home-prepared diets!" says Dr. Scott.

In a similar vein, there has also been an explosion of companies that offer to diagnose allergies serologically (RAST, ELISA). "Practitioners must know that most of these services are of unknown benefit. For inhalant allergies (Atopy), false-positive tests abound, and serologic testing for food allergies is worthless."

Reaching for his daily case log, Dr. Scott cites some recent cases that represent fairly typical referrals. The first case is a one-year-old boxer who came to the clinic with a dual diagnosis of allergies and hives.

"It was not clear from the history whether the allergy came from what the dog was breathing in or what he was

eating. He had to be tested for both," says Dr. Scott. "We examined him and sent him home on a special diet. If we're lucky, the problem will be diet and we can make all further recommendations to the owner over the phone. If not, then the dog may have to be brought back for further allergy testing."

A second case is a one-and-one-half year old rabbit whose hair is falling out. "We made a diagnosis of anagen defluxion --an uncommon diagnosis--meaning that the animal suffered some severe stress in the past that caused its hair to fall out. In fact, the rabbit had suffered a severe respiratory disease 10 days prior. In this case, the problem will cure itself as long as the respiratory disease is being treated correctly."

In a third example, Scott cites the case of a seven-year-old domestic short-hair cat whose owner brought it in with several complaints: the cat had recurring ear infections and was a fur mower. "The patient was presumed to be allergic," says Dr. Scott. "We checked the diet and suggested that we test for allergies. In this case, the owner preferred to treat the animal symptomatically for allergies with cortisone or antihistamines because this was simpler than feeding a special diet and having his cat allergy tested. Clearly, the management of any dermatologic case must take into account the capabilities and interests of the owner."

Animals with skin disorders are received as out-patients in the Community Practice Clinic on an appointment basis, four days a week, Mondays and Wednesdays from 1-5 p.m., and Tuesdays and Thursdays from 9 a.m.-noon. Animals are also examined on a consultation basis in the Small Animal Clinic and the Large Animal Clinic.

"We take a patient history, give a physical and establish baselines in the exam room. Within an hour or so, we can generate a list of possible diagnoses, but the great majority of cases will not have a final diagnosis at that point," says Dr. Scott. Further lab work and treatment is almost always required. "It is very safe to say that most dermatology cases are not completely diagnosed for at least four months but most patients do not need a second visit. Diagnosis is almost always a process of elimination."

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IMAGING

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Consequently, the pictures reflect the distribution of the material in the bone and can guide the clinical staff to the problem areas.

Nuclear imaging has a very high sensitivity for detecting bone lesions in horses, particularly incomplete, or hairline, and stress-type fractures. The procedure is primarily used to determine lameness in horses where x-rays are negative, or to evaluate multiple lameness to determine the most active site. "When a fracture is present and not visible on radiographs, the bone scintigram will almost certainly detect it," says Dr. Dykes.

Bone scanning is reasonably priced (\$300 to \$500) depending on the number of limbs examined. All types of equine athletes from racing to dressage, cross-country and jumping horses have been examined with this technology. This expense is minimal in the evaluation of lameness in valuable horses, especially when standard techniques have not detected the problem. Scan evaluation can detect new problems and may be used to monitor injuries and assess healing.

Dr. Dykes assures owners and referring veterinarians that the procedure is very safe. "The procedure has been performed millions of times in people and thousands of times in horses without ill effects," he says. "The isotope is excreted from the animal within 24 hours and decays to background levels within 60 hours." Because of the radioactivity, specific confinement procedures are required by university and state regulations. Horses must stay in the hospital for 24 hours until they have excreted the isotope. After the animal goes home, the hospital stall is left untouched for 60 hours and then the manure, urine and bedding can be disposed of in the usual way. There are no restrictions placed on the horse after leaving Cornell.

Scanning a horse is relatively simple. The horse is tranquilized, led up onto a specially-built elevated scanning platform and positioned near the gamma camera. Several people are needed to position the horse and camera immediately next to the area to be scanned. Then, the horse must remain motionless for the two or three minutes needed to make the scan. "Usually it takes three to four people," says Dr. Dykes, "one or two to position the

horse, one to operate the computer, and one to watch the gamma camera's position on the horse."

The team effort often involves Dr. Norm Ducharme, Dr. Alan Nixon, Dr. Susan Fubini, and Dr. Richard Hackett (all equine surgeons), or their residents and interns. Head technician Bob Wallace makes the initial isotope injection, sets up the camera and computer and does most of the hard work involved in scanning. "Bob has been working with Dr. Kallfelz since the initiation of nuclear medicine at Cornell and is invaluable to the effort," says Dr. Dykes whose job as radiologist is to interpret the images. Radiology technician Renea Sharpe is also trained to do scans.

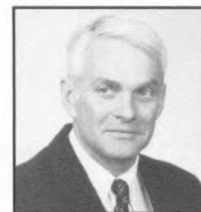
The Siemens LEM mobile gamma camera and microDelta computer system has been used at the VMTH since purchased new in 1987 for \$175,000. Though kicked occasionally by the horse being scanned, the camera should function well for several more seasons. An upgraded camera computer system is planned when the new hospital opens in 1995.

SKIN

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Phone referrals are an important aspect of the dermatologists' work. Each faculty member spends up to three hours a day on the phone consulting with referring veterinarians, following up on patients with their owners, and diagnosing cases with practitioners from all over the Northeast. The 30,000 slides they have accumulated in their libraries serve as a valuable resource for teaching and publication. They also do consultations for other services, make rounds with students, and read skin biopsies sent into the Diagnostic Laboratory by practicing veterinarians from all over the United States and Canada. Practitioners interested in this service should send their skin biopsies to the Diagnostic Laboratory at Cornell and write "Please have dermatologists review slides."

The Dermatology Service routinely has several clinical research projects in areas such as the evaluation of antipruritic agents, diagnostics in veterinary allergy, and the efficacy of various antibiotics. Dr. Scott and Dr. Miller also travel all over the world giving seminars in a continuing education capacity for veterinary medical associations.



FROM THE DIRECTOR

Spring has finally arrived in Ithaca, the grass has turned green and the daffodils are blooming. The Veterinary College complex is looking much better than it did during the winter when huge piles of snow filled every available space and there was little room for cars, animal trucks, etc., to access our facilities. The arrival of spring seems to have reawakened the interest of our clients and referring practitioners in the programs we have to offer. After relatively low caseloads during the months of January and February, there has been a healthy increase in case numbers in March and April. We are hopeful that this will continue into and throughout the summer.

As most of you already know, our senior students now begin their senior rotations immediately after finishing their final examinations in the junior year. Consequently, senior students now rotate through our clinics 12 months per year. This makes it ever more important for us to maintain an adequate caseload, particularly during the summer months when many folks are away on vacation.

Many of the VMTH faculty have become or are becoming involved in teaching the new curriculum. This is a very exciting time as our first-year students learn veterinary medicine through the study of cases illustrating various anatomical, physiological, pathological and other principles.

The new Veterinary Medical Center is now completely enclosed and it is therefore difficult for us to see the progress that is being made inside. In a recent tour of the new facilities, it was very gratifying to see the tangible results of the years of planning that have gone into this effort and that various disciplinary areas such as radiology, surgery, intensive care units, and so forth, are beginning to take shape.

We are now in the process of selecting equipment for the new hospital. Of course, the list far exceeds available fiscal resources. We are sure you will be impressed with the variety of expanded services available once our new facilities open.

In the meantime, we are still anxious to provide the very best clinical service to you and your clients. Please feel free to contact us with cases that you may wish to refer or with questions regarding cases you are handling. As always, I am available to answer any questions or concerns you may have and can be reached at 607-253-3030 (office) or 607-257-2522 (home).

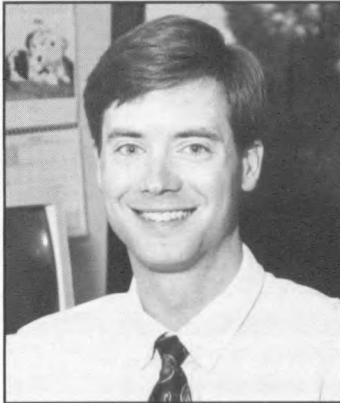
Fran Kallfelz

STAFF PROFILES

Dr. Arleigh Reynolds has been appointed Assistant Professor of Clinical Nutrition in the Department of Clinical Sciences and the Veterinary Medical Teaching Hospital.

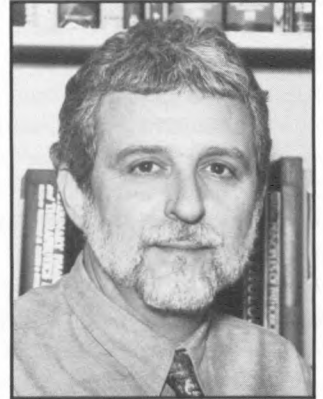
A 1986 graduate from the College of Veterinary Medicine at Cornell University, Dr. Reynolds spent two years in private practice before returning to Cornell to study the relationship between exercise physiology and nutrition in the working sled dog. After receiving a Ph.D. in 1992, he was appointed as an Instructor of Nutrition.

He is the Chief of the Nutritional Consultation Service of the VMTH and is involved in the nutritional management of hospitalized patients, including both enteral and parenteral nutritional support. He is also available for consultation with referring veterinarians on questions of nutritional management and can be reached at 607-253-3486.



Dr. George Kollias was appointed as the Jay Hyman Professor of Wildlife Medicine on March 1, 1992, and holds joint appointments in the departments of Clinical Sciences and Avian and Aquatic Animal Medicine. He completed his residency training and doctorate at the University of California at Davis prior to acting as Chief of Wildlife and Zoological Medicine at the University of Florida for 10 years. Dr. Kollias is developing a comprehensive wildlife health program in the College of Veterinary Medicine. He acts as a consultant to VMTH house staff and referring veterinarians concerning medical and surgical management of captive and free-ranging wildlife and exotic pets.

His research interest is in avian infectious diseases.



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