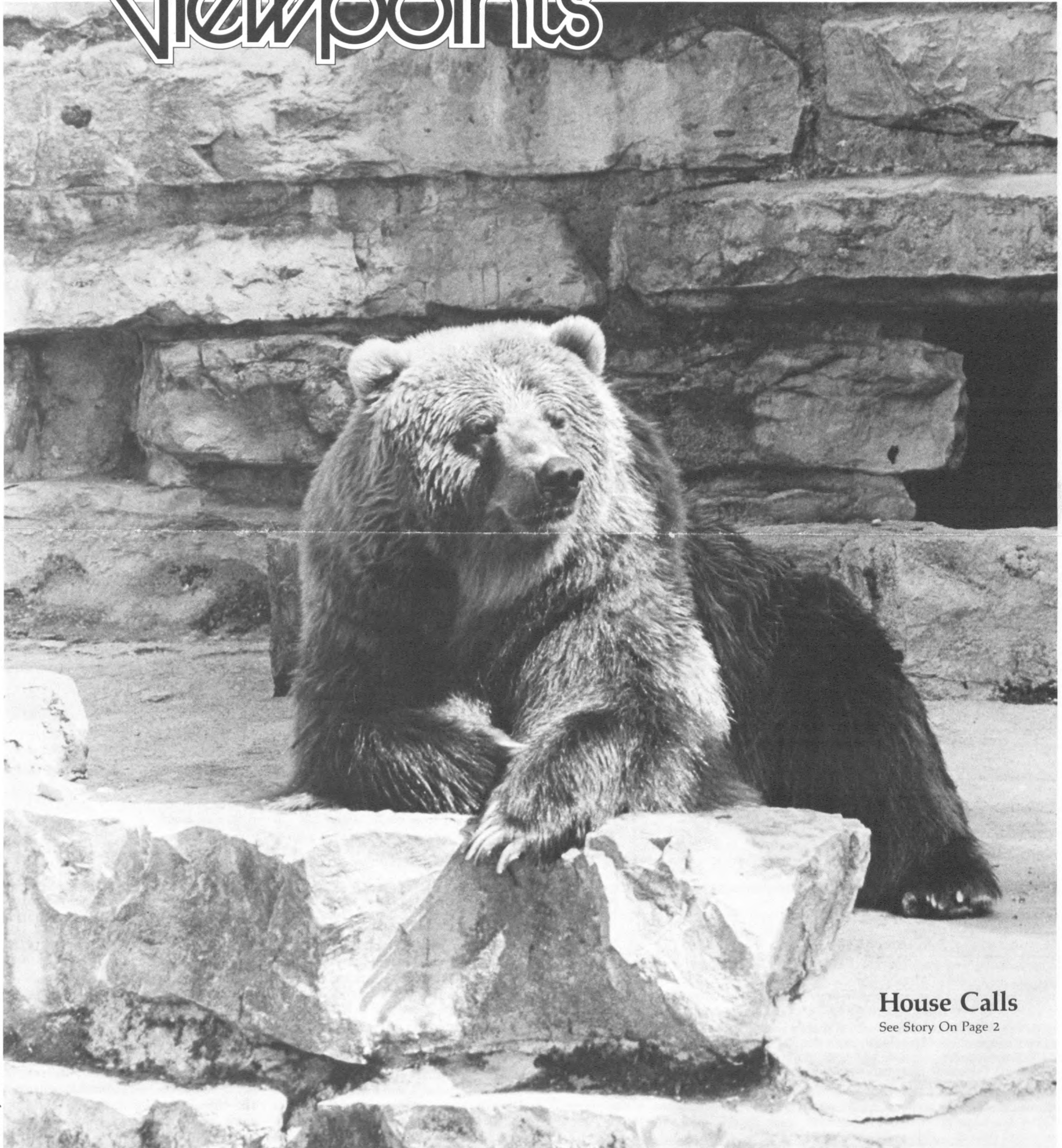


Veterinary Viewpoints

*Kirk
Pharmacia
Skip Churchill*



House Calls

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1985 Honor Day Awards & Prizes

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| The Horace K. White Prizes | Roberta Wallace Christine Miller J. Perry Heffelfinger Peter Kintzer Kathleen Hefner |
| The Grant Sherman Hopkins Prize | Christine Miller |
| The New York State Veterinary Medical Society Prize | Amy Hurd |
| The Prize of the Auxiliary of the American Veterinary Medical Association | Scott Curtis |
| The James Gordon Bennett Prize | Michael Roth |
| The Anna Olafson Sussex Pathology Award | Paul Bookbinder Jadine Bump Susan Ehrhardt |
| The Mary Louise Moore Prize | Roberta Wallace |
| The Charles Gross Bondy Prize | Kathleen Hefner |
| The American Animal Hospital Association Student Award | Elizabeth Burke Walter Cottrell |
| The Phi Zeta Award | Keith Mansfield |
| The Malcolm E. Miller Award | Walter Cottrell |
| The Jacob Traum Award | Peter Kintzer |
| The P. Philip Levine Prize in Avian Medicine | Mary Lindsay |
| The Frank Bloom Pathology Award | Roberta Wallace |
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| The Anne Besse Prizes | Susan Kerr Mary Lummis |
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| The American Association of Feline Practitioners Award | Stephen Riback |
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| The Colonel Floyd C. Sager Equine Obstetrics And Pediatrics Award | Amy Hurd M. Patricia Kenney |
| The Kleen Leen Award in Swine Medicine | Derek Fritz |
| The Norden Distinguished Teacher Award | Dr. Sharon A. Center |

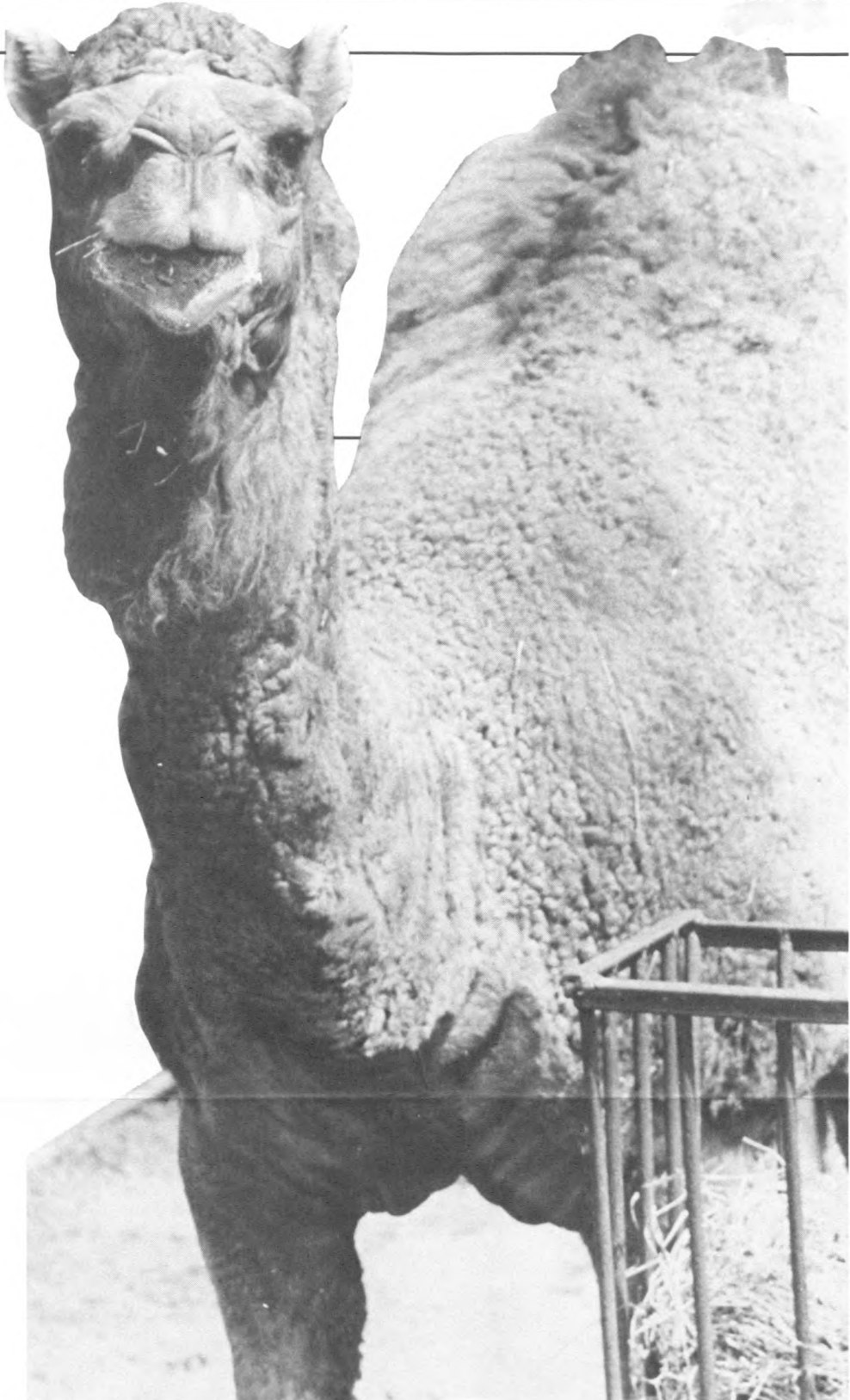


Photo by K. Redmond

House Calls

Our dromedary camel is from a zoo herd where the birth rate has fallen off and theriogenologists from the college were invited to make a "house call" to examine the harem's lone male camel. Such visits aren't unusual. Along with cows and horses, pigs and sheep, dogs and cats, the staff of the New York State College of Veterinary Medicine see their share of exotic animals. In addition to camels, they've treated an emu, a polar bear, Przewalski horses, watusi cattle, elk, elephants, llamas, lions and tigers and a brown bear, along with many others.

Sometimes the patients are unexpected; for instance, the 5 ft. Florida King snake who dropped in for lunch at a cafe restaurant from the apartment windows above. Dr. Lloyd Dillingham, Director of Lab Animal Resources, was called on to examine the gate-crasher who had escaped from his owner several

weeks (!) prior to his capture. The snake was in remarkably good shape; he just needed a long drink of water before returning home.

Other patients come to the Clinic by appointment, from their home zoo or shelter. A wallaby with a suspected heart problem was in the clinic recently to be checked by Dr. Sidney Moise. Alpacas, natives to South America and relatives of the llama, were admitted after several animals in their home herd became blind. Examinations by veterinary ophthalmologists were followed by consultations with Dr. Francis Kallfelz, a clinical nutritionist, and Dr. John Cummings and Dr. Alexander deLa-hunta, specialists in neurological diseases. Potential causes currently being considered include viral or bacterial infection, the ingestion of toxic substances, or a vitamin deficiency.



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Dr. Carmichael Named "Inventor of the Year"

"I was more a catalyst in a series of group efforts"

—Dr. Leland Carmichael
"Inventor of the Year"

The Central New York Patent Law Association recently named Dr. Leland E. Carmichael its "Inventor of the Year for 1985" in recognition of his 5 U.S. patents and more than 35 foreign patents in the field of animal diagnostics and animal vaccines. One of the world's leading scientists in the field of virus diseases in small animals, Dr. Carmichael is well recognized for his work on parvovirus and the development of a vaccine against this new disease that began to kill young dogs in 1978. This work alone "involved an incredible amount of time and effort—4 years out of my life," says Dr. Carmichael. An extremely modest man, he feels he received the award more for "persistence and plain obstinacy in pursuing the interests of the Institute." The institute Dr. Carmichael speaks of is the James A. Baker Institute for Animal Health, where he is Scientific Director and the John M. Olin Endowed Professor for Virology. Adds Dr. Carmichael, "There is a history here of patenting things that could provide research money. Monies that come back to the Institute and can then be committed to canine research." Cornell has received more than \$1.5 million from the three patents it holds on parvovirus vaccines. Of this, 70% goes directly towards veterinary research.

From their work, Dr. Carmichael and other researchers at the James A. Baker Institute have developed an impressive list of useful products. In the great majority of cases they were the initial applicants for the inventions and says Dr. Carmichael, "Whoever gets the experiments done first has a fair chance of reaping the benefits." Their competitive edge is attributable to the fact that they have people working constantly in basic research as well as on infectious diseases of dogs. This broad scientific base allows cross-fertilization of ideas and attitudes. Frequently, a finding from the basic research has substantial application to the more applied research. An outstanding reputation for canine research also helps. Cornell has become so identified with dog diseases, that the James A. Baker Institute is often the first to be notified when a new disease appears in dogs giving the Institute a head start on needed research.

After a vaccine is developed in the laboratory, the application for the patent may be made, but success in seeking a patent is only one part of a lengthy process. Licensing is another. A patent alone doesn't guarantee success unless there is an advocate, the patent attorney, who represents Cornell's interests well. Dr. Carmichael speaks highly of patent attorney Ralph Barnard who has served both the Institute and the College of Veterinary Medicine for over 20 years. "We've had good representation through Ralph Barnard. He understands the needs of the faculty. And he has been singularly successful in



licensing biological inventions." In his function, Mr. Barnard sees himself as a science history writer, analyzing the scientific contribution and soliciting the inventor's views. Then too, there is always the question, "Is it truly novel? Does it represent a practical advance?" A patent also accomplishes a great deal for the scientific community; it encourages researchers to publish their findings and it sorts out who made the first contribution. This process is so important that every country has a patent system.

In spite of the "Inventor of the Year" award, Dr. Carmichael continues his research with a down-to-earth practicality. His foremost concern is the quality of the science and how it may benefit animal health. If the end product is patentable, so much the better. In the meantime, he continues to attempt to identify the problems that need researching, compile the facts, see the interrelationships, and draw the conclusions that, ultimately, says Dr. Carmichael "make science a useful, as well as a 'holy cow'—one that also may provide some butter."

On the Road to Brazil

Pamela Blackshear '87 is on her way to Brazil this summer for approximately three months of study and research. That she is travelling on her own and has never been outside the United States doesn't even phase her. As she visits the Brazilian cities of Sao Paulo, Concordia, Campinas and Rio de Janeiro, Pamela will have the opportunity to work and exchange information with researchers, veterinarians and veterinary students at educational and agricultural centers. She'll visit the College of Veterinary Medicine at the University of Sao Paulo; EMPRAPA—the Center

for Swine and Poultry Research in Concordia, Santa Catarina; Holambra, a rural cooperative near Campinas; the Foot and Mouth Disease Institute of the Pan American Health Organization in Rio de Janeiro. Her travel this summer will not only expand her knowledge of veterinary medicine, it will also provide an unique opportunity for Pamela to investigate the prevalence of avian rotavirus in important poultry production areas. Rotaviruses are a major cause of malabsorption syndrome and affect a wide range of mammals and avians. Rotaviruses have a large distribution causing economic loss as well as public health problems in both developed

and developing countries. Thus far, the presence of rotavirus has not been demonstrated in poultry or swine in Brazil. She plans to deliver a report on the results of her survey when she returns.

The departure for Brazil comes after a great deal of pre-planning, searching for financial support, and commitment to extracurricular instruction. First, Pamela had to arrange support for her trip. After presenting a proposal on her intended study, she was granted funds from Cornell's Center for International Studies, the Latin American Studies Program and the College of Veterinary

Medicine. As a member of the Student Chapter of VIDA (Veterinarians Interested in Developing Areas), Pamela has participated in the group's activities and she has taken the elective course "Veterinary Medicine in Developing Nations". This course has given her an awareness of the many economical, cultural, and philosophical differences she will encounter. In addition, she's brushing up her Spanish, learning Portuguese, and acquiring the technical laboratory skills necessary to run the serological survey for rotavirus. When she returns in the fall, we'll hear how Pamela's preparation paid off.

Funding Received for "3 Disease Program" & Facilities

Through the efforts of dairy, agricultural and livestock groups in New York State, the Diagnostic Laboratory at the New York State College of Veterinary Medicine will receive \$467,000 from the 1985 State budget to support services and new programs. The Laboratory is operated by Cornell with the support and collaboration of the New York State Department of Agriculture and Markets.

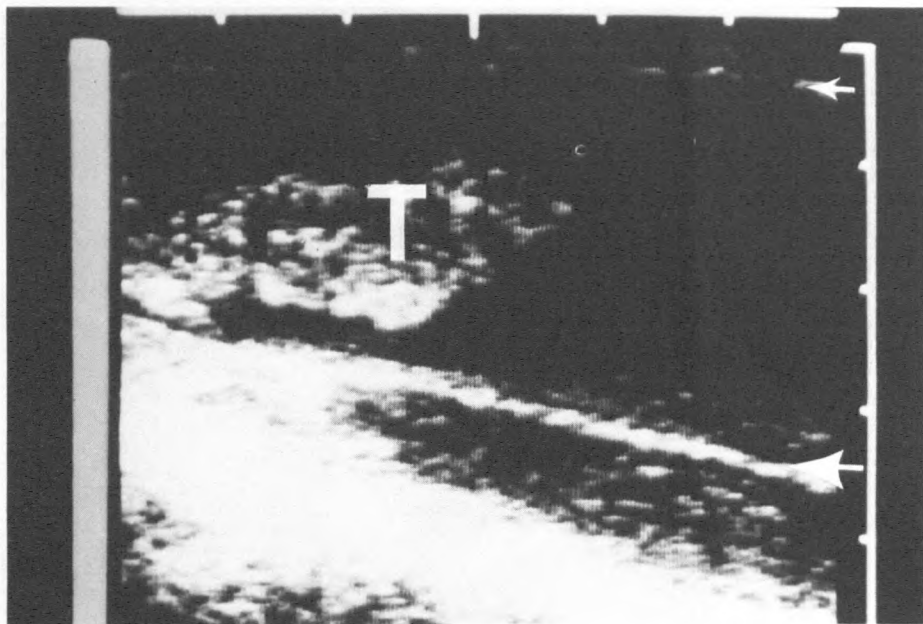
According to Dr. Raymond Cypess, Director of the Laboratory, \$251,000 is intended to support the Diagnostic Laboratory's services, including mandatory salary increments, inflationary costs, and laboratory facilities. These funds will also be used for renovations to physical facilities, to purchase new laboratory equipment and to support new personnel in extension field services for the swine, dairy and equine industries in New York State. With the remaining \$216,000 of the total \$467,000, Dr. Donald Lein, Assistant Director of the New York State Diagnostic Laboratory, will coordinate efforts to develop a "3 Disease Program." The aim of this program is to

control and certify cattle herds free of three key diseases: Johne's disease, bovine leukosis, and blue tongue. All three diseases have a major impact on livestock production and particularly on the exportation of animals. Funds will be used to establish and support laboratory testing at the Ithaca facility. Activities will include a survey of the cattle population in New York State, testing of animals, and certification of herds free of these diseases.

Johne's is an insidious disease that affects an unknown proportion of dairy cattle although it is estimated to be present in 10 to 20% of the cattle population in New York State. Estimates

of the incidence of bovine leukosis in New York State dairy cattle populations range from 10-30% based on blood titers, but rates may be much higher in individual herds. However clinical incidence of bovine leukosis is much lower with less than 1% of the dairy cattle in New York State showing disease. Blue tongue is considered to be nearly non-existent in the Northeast, and yet Federal surveys of blood samples taken in slaughterhouses show that there is a 5% prevalence of the disease. Positive animals are often difficult to trace although they appear to be cattle imported from the Northwest and southern states.

More Than Skin Deep



"T" marks a thrombus detected within the walls of the aorta by ultrasound.

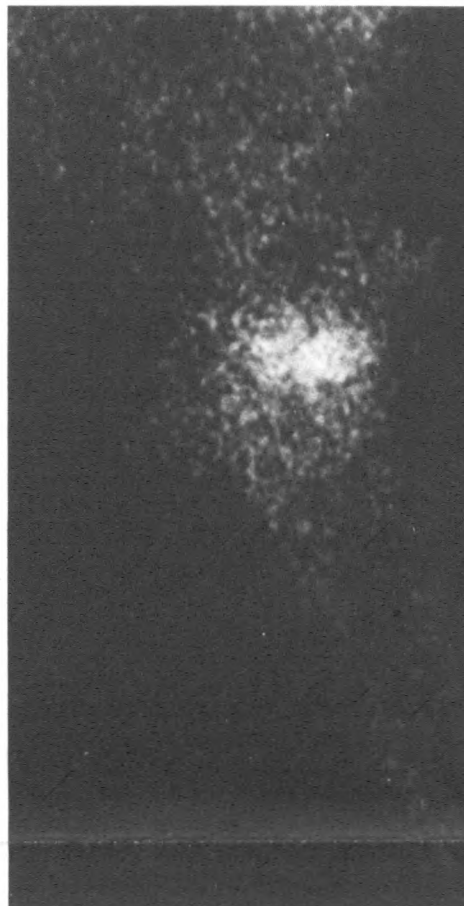
Suppose, as sometimes happens, a horse is decidedly lame. Yet, after a thorough lameness examination, including flexion tests, hoof testing, and nerve blocks, the cause of the lameness is still not apparent. Why? It's not a reflection on the veterinarian's diagnostic abilities; it's due perhaps to the complexity of the horse's anatomy multiplied by the truly innovative ways a horse can find to compensate for a physical problem. At this point, a clinician in the Teaching Hospital relies on ancillary diagnostic tools and these diagnostic tools really do see more than skin deep. Their use, coupled with the minimum interference to the patient, aids earlier detection of problems with prompt treatment and swift recovery. It's also interesting to note that most of the diagnostic tools of veterinary medicine first gained acceptance in human medicine and today, nearly every service or test available to the human patient is also an option in veterinary medicine.

In Nuclear Imaging, the equine patient is given a compound labelled with radioactive material that is known to accumulate in specific organs or spaces within the body. A detection device, the gamma camera, takes a picture of the resulting build-up of radioactivity. (These amounts are not harmful to the patient or its handlers.) In equine bones, the compound concentrates in bone where mineral is being laid down, highlighting any lesions accompanied by an increase or a decrease in bone material. Not only does nuclear imaging aid early diagnosis, it displays some lesions that are difficult to detect using standard radiography. For example, in the nuclear imaging of P3, in the hoof of the horse, hairline fractures of the bone and incipient navicular disease are noticeable. Used on the lungs, abscesses and infarcts are detectable. The Teaching Hospital has

Two radiographs of the same fetlock joint. The photo on the right shows what less advanced techniques would have missed—a lytic lesion in the lateral sesamoid bone (circled in the photo).



Nuclear imaging revealed a lesion in this horse's hock. The dense white image is the accumulation of radioactive tracer at the lesion site.



recently acquired an imaging applications system that will allow detailed photos of the function of organs, including cardiograms.

Bouncing sound waves off tissue might not seem a logical way to produce visual images, but when ultrasound waves are used, the image they produce is sharp enough to show major organs, tumors, pleuritis, flexor tendon and suspensory ligament injuries and even adhesions and abscesses within the abdominal cavity. Dr. Amy Dietze in the Teaching Hospital takes a mobile ultrasound unit to the patient's side where she uses a hand held transducer that both transmits and receives ultrasound waves. Changes in tissue density reflect the sound waves which are translated into varying shades of gray for a monitor's screen. By moving the transducer over the chest, abdominal or limb area, the reflected ultrasound waves produce a two-dimensional picture that can show a heart's enlarged chambers, blood pulsing through veins and arteries, or fibrin tags, caused by pleuritis, flapping in the thoracic cavity.

X-rays, or radiographs, may seem old-hat, but today's equipment and capabilities are making a new technology out of yesterday's service. Radiology has grown up since the days when plates were hand-held and exposures went for as long as two to three seconds. Faster speed screen and film combinations—as fast as 1/120th of a second—and advances in rare earth screening technology produce x-rays with considerably more detail than ever before. Modern equipment and training make it possible to radiograph any part of the horse for the purpose of demonstrating existing bone or most soft tissue changes. In the Teaching Hospital's large animal radiology room, pelvis, lumbar spine and chest radiographs are routinely taken. Portable equipment is frequently used to radiograph extremities for the diagnosis of navicular disease or spavins.

While traditional radiographs are dependable and often essential in the search for a cause of certain disorders, other methods are currently available that literally "see" to the heart of the matter.

Thermography is familiar to most people from the infrared photos of homes showing heat loss from poorly insulated areas. Obtaining a thermogram of an equine patient involves a minimum of physical contact; you simply point an infrared camera at the limb or muscle group. Able to detect infra-red radiation, the camera and its computer component take a multi-color "picture" or thermogram of the horse's limb that reflects temperature variation. Areas of inflammation in the joint or muscle are easily detectable by color changes in the photo. The camera's ease of use is particularly valuable for detection of hindlimb lamenesses where large muscle groups cannot be blocked for examination.

While the thermogram paints a one-dimensional portrait of the limb, arthroscopy takes the surgeon inside the joint. Usually, three stab incisions just large enough to admit a fiberoptic probe (arthroscope) are made in the knee joint.

Photo by D. Grunfeld



The arthroscope is inserted into one of these incisions; the others will be used for a fluid catheter and operating instruments. A penlight-size video camera on the end of the arthroscope probe transmits a picture back to a television monitor. Clinicians can manipulate the arthroscope past ligaments, through the joint capsule and synovial membrane and evaluate the articular surfaces and cartilage by watching the TV monitor. If the cartilage is scarred or if bone chips are in the joint, arthroscopic instruments can smooth or remove them. Although the procedure involves placing the patient under general anesthesia and entails aseptic major surgery, arthroscopy is known as a minimally invasive procedure and it is not unusual for patients to be back in training within eight to twelve weeks.

Getting to the heart of a problem—or in this instance, to the bone and tissue—is possible when diagnostic tools such as thermography, radiology, ultrasonography, arthroscopy, and nuclear imaging are available. Although each procedure can't supply all the answers, when two or more are combined their answers fill in the gaps and paint a more detailed picture of a problem. After that, it's up to the human experts to interpret the findings, make the diagnosis, and prescribe the treatment.

Charlie

Poor Charlie. He bumps into walls, he loses his balance and all the time the left side of his body won't do what the rest of Charlie is doing. It's enough to make a cat curl up and act depressed. Which is how Charlie appeared when his owner brought him to the Small Animal Clinic. Dr. Frank Smith, resident on the medicine service, performed the initial physical examination and heard Charlie's history of head-pressing into the wall, loss of balance and loss of control in the left side of the body, including great difficulty in walking. Charlie had previously been treated with steroids and improved. Unfortunately, the effects were only temporary and the duration of improvement was diminishing. Dr. Smith also noted that the cat was unable to feel on the left side of his face. It was decided that Charlie would spend some time at the clinic and soon after admission. Charlie was scheduled for a neurological examination with Dr. deLahunta.

"Neuro" examinations in animals present their own set of problems. Unlike humans with a neurological malfunction, animals can't tell you when they're dizzy or what seems to be wrong in their eye-hand coordination. Such examinations in animals have to rely on close observation by the neurologist and the reaction of the animal to a set of stimuli. In Charlie's case, this meant checking eye motion and noting if the pupils constrict to light. It's observing how the legs work independently and together, if there's a head tilt, or if the animal tends to circle when walking freely. Circling usually indicates a brain lesion on the same side as the direction the animal is circling. By doing all these things, Dr. deLahunta could say that Charlie's problem involved some lesion in the brain and he was able to localize the lesion to the areas of the

right and left sensorimotor cortex, right occipital cortex, right frontal lobe, and rostral thalamus. His differential diagnosis was a neoplasm granuloma, an area of chronic inflammation, in this region. He recommended a CSF tap, coupled with a brain scan and skull radiographs to confirm and localize the lesion.

Charlie's first test was the CSF or cerebrospinal fluid tap. Clinicians take a minute sample of the fluid that fills the cavities in the brain and spinal cord and analyse it for white blood cell and protein concentrations. It is an indicator of brain injury and often suggests the cause. In Charlie, the CSF tap revealed an increase in protein with a normal cell count. This suggested either neoplasia, brain degeneration or vascular injury.

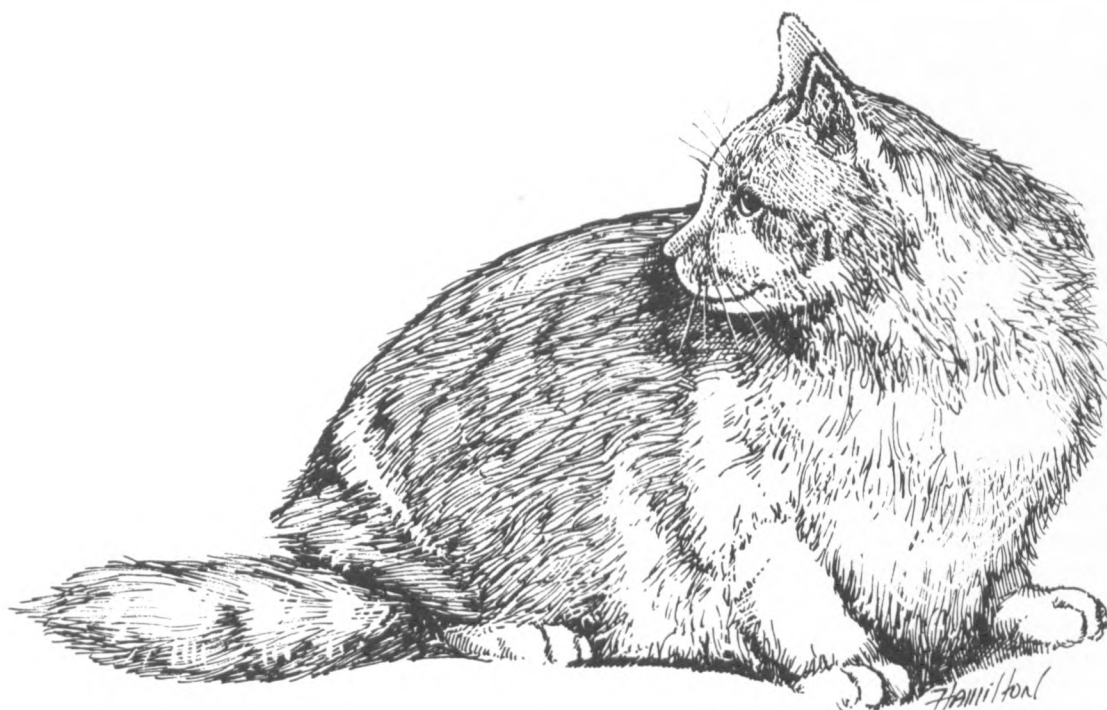
Dr. Francis Kallfelz took charge of Charlie for the second test—the brain scan. In this procedure, the sedated patient is given a radioactive tracer. This tracer tends to concentrate in highly active areas of tissue or bone, for example where new bone is being formed or where metabolic changes are occurring in soft tissue. The brain scan itself is a very passive process; the patient literally lies on a screen that collects and makes a picture of the differing amounts of tracer material being released. These look like white "dots" on the brain scanner's screen. Areas of little cellular activity show up with fewer "dots" and areas of greater activity show greater tracer accumulation and therefore more "dots." An area of inflammation in the brain, such as Charlie's, could appear solid white. Dr. Kallfelz confirmed Dr. deLahunta's initial findings that there was a lesion to the superficial region of the right parietal region of the brain. Dr. deLahunta now suggested that the lesion

was surgically removable.

Brain surgery in a cat? While it's not a common occurrence, there was really nothing that said it couldn't be done. Five days after Charlie was admitted to the Clinic, Drs. Jim Flanders and Dave Clark bent over the opened skull and skillfully excised two 1×1×.2 cm. sections of cortical tissue. Pathology reports on the sections described an irregular infiltrate of inflammatory cells; the granuloma identified by neurologist, radiologist and clinicians had been found and removed.

Getting rid of the unhealthy cells meant removal of a few normal cells too, but it's a testament to the marvelous complexity and healing capacity of the brain that Charlie showed improvement within days of the surgery. Mentally he improved almost immediately, recovering well and looking alert. Pain sensation in the left side of the face returned and five days following surgery Charlie was walking normally.

The next question is, of course, will the inflammation recur. Granulomas have many different causes and it's difficult to say what caused the inflammation in Charlie's brain and equally hard to say if it will happen again. Charlie also has other problems; he is slightly hyperthyroid with the resulting cardiac anomalies (a heart murmur), an increased appetite. He also has feline leukemia, a disease that usually kills 2/3 of all positive cats within 1½ years of diagnosis. The good news is that he shows no sign of the disease. And Charlie isn't worrying about it. He's a new cat after an uncommon surgery, walking with ease, eating, and grooming himself. Chances are Charlie will live a happy, healthy life for quite awhile yet.



Artwork by William Hamilton, III

Robert W. Kirk, DVM (COR '46), has long been an important presence at the New York State College of Veterinary Medicine, first as Assistant, then Associate and finally Professor and Head of Small Animal Medicine. He is a Diplomate of the American College of Veterinary Internal Medicine, the American College of Veterinary Dermatology and a Fellow of the American College of Veterinary Pharmacology and Therapeutics. He has served on the boards of the major professional organizations and is the author of numerous publications and books that have become standards for the veterinary medical profession. Since 1983, he has also been Director of the Veterinary Medical Teaching Hospital. The chronology of these events, of his return to Cornell, his years in practice, his military service, are noted in the following article. But as Dr. Kirk approaches his retirement day, we wanted to do more than list the many achievements of an outstanding career. Not for the first time, certainly not for the last time, we sought his advice and learned from his years of experience. What follows is our conversation with Dr. Kirk, his views on the College, the state of veterinary medicine and his own future.

Dr. Kirk, you're in your 33rd year at the New York State College of Veterinary Medicine and on July 15th you're planning to retire.

Actually, I have been a veterinarian for almost 40 years, having had 4 years in practice and 2 years as a Captain in the Air Force.

How has veterinary medicine changed in those years?

It has changed tremendously—especially the kind of life that people lead. When I first graduated, veterinarians were very much the lone entrepreneurs. They gave all for everyone and faced tremendous competition. I thought it was fairly grim. When I first went into practice I felt pretty lonely after having been in a school where there were a lot of people to talk things over with . . . then suddenly I was out on my own. But that was a learning experience. Today, it's rare for someone to practice completely alone. There's either a partner or three or four partners and they each have a special interest. I'm most impressed by today's camaraderie—the way veterinarians get together, almost like a family, and compare notes, and talk about cases and share clients. There is a feeling for dealing with the common problems of veterinary medicine and their solutions together.

There have been other changes. When I was in school there were only one or two female veterinary students in each class—considerably different from today. Their numbers then were limited by the number of available beds in the women's dormitory at Cornell. I think the increased number of women veteri-



Photo by S. Goldberg

narians can only benefit the profession. Some skeptics (including me!) said women would graduate and then leave veterinary medicine to raise families—but I sure don't see this happening. In veterinary practices, women are participating fully and they would be missed if their numbers declined. Some may take time out for a family but many are managing a professional career and a family too.

There are a lot more veterinarians in practice now. Do you think the sheer numbers will increase profession competition?

It will probably get that way and I look with some real concern at the number of people who are graduating. But there have always been phenomena described as "disasters" for veterinary medicine. They said, "There's going to be nothing to do once the horses are gone." We resolved that one and the profession has come on stronger than ever. I'm sure that we are at a crossroads, and that the profession will develop in ways that we don't imagine now.

You came back to Cornell in 19..?

1952. I was getting out of the Air Force and they had written me about working at the University of California which was just a very young school then. I had all but accepted a job out there. One day, on a day off from the Air Force, I was working on a potato farm up in Maine helping a friend get his potatoes harvested and Dean Hagan was on the phone from Ithaca wondering if I'd be interested in a job in Ithaca. Dr. Hadley Stephenson was retiring and Dr. Hagan was calling to see if I'd be interested in the job. I had corresponded once with Dean Hagan about possibly going to work in the Diagnostic Lab after my discharge, so he knew I was going to be available. A week or so later I came to Ithaca and talked with Dr. Leonard, then Director of the Small Animal Clinic, and decided to come to Cornell instead of going to California. I sometimes wonder how different life would have been if I'd gone to California.

In 1984, the World Small Animal Veterinary Association awarded you their International Prize for Scientific Achievement—you were the first person to receive this award. You've built an international reputation. How do you feel about that?

Well, a "reputation" isn't earned alone. I have many colleagues and friends who have helped me, especially with the books I've been involved in. I also have a great affection for Cornell, as most people know, and I have kind of ridden on her coattails. If I've had any impact on my profession, it is perhaps an ability to interpret for practitioners the practical use of some of the research done on this campus. I've tried to write or talk to practitioners about how they can use that new information in their practices. For years I've given Continuing Education talks—25 or more a year. I think that has been a benefit to me and to the College. I think it is important for Cornell to have people who are on the national and international scene, telling what is going on here, and what research is being done. At the present time, we have a fairly young faculty—especially in the clinics—and they're not yet doing that. I am not criticizing them because they have to get their feet on the ground, pass their specialty boards and develop research interests and expertise; but the administration and the faculty have to understand that getting the word out to people in our profession around the world is going to make scholars want to come to Cornell and study too. It encourages an exchange of knowledge and we all benefit from it. I was very impressed with the last issue (April) of DVM Newsmagazine; a great deal of the magazine was devoted to comments about Cornell and Cornellians and I think that's a welcome sign of the times. It shows that the faculty's hard work is being recognized and reported. Of course, most of their work was first reported in professional journals.

Did becoming Director of the Teaching Hospital in 1983 make you cut back on your outside speaking and teaching commitments?

Well yes. You become passe pretty fast when you stop seeing cases and being active in teaching and research. That's my status, I'm sure. It's a natural, though perhaps unwelcome rite of passage.

Maybe a passage, but certainly not passé. Did you ever expect to go into administration? Was it a goal?

No. It's very frustrating, and I don't always care for it. You have to be difficult sometimes and be tough, and not everyone is happy with the decisions you have to make. I would love to have everybody work together without friction but of course that's impossible, even though that's the way I was raised as a youngster. There are going to be differences of opinion and I guess we all

become stronger by facing those. Each of us has our own pet projects and interests and we protect them jealously. We don't always see how these diverse interests combine to make the College stronger.

The search is on for your successor, a new Director of the Teaching Hospital. What do you need to be a good director?

Well, you have to have a thick skin!

I would hope that whoever is hospital director would keep in mind that there needs to be a balance of things. We can't all be researchers or brilliant lecturers. We can't all be super surgeons or excellent clinicians. There are some people who are going to shine in one area but not perform well in others. Administrators have to respect these qualities. They say we must publish the work we do, and we must do innovative research. I agree with that, but some people work best doing some of the routine things in a research project or providing clinical insight into projects that need to be investigated while others are innovative leaders who are thinking way ahead—but may not have immediate practicality. You just have to recognize that, and look at things from a balanced standpoint. It's the total team that gets the job done.

There are things that are frustrating to a hospital director. You must balance the economics of the hospital with the academics. And they have to be kept in perspective. If we teach our students to do only treatments that are completely impossible from an economic standpoint, we're preparing them for failure when they graduate. They have to have some understanding of what is practical and what is economical and what isn't. I hasten to add that when I first came back here Dr. Ellis Leonard was being questioned for his insistence on the need for sterile surgery and asepsis and rubber gloves and other things that are taken for granted now. Somebody has to keep pushing ahead to do new things that look uneconomical but will be commonplace 5 years from now. If the school can't do that, who can?

We have an excellent staff that wants to be the best and makes extraordinary efforts to save every case. That's a wonderful goal but it has to be tempered with realism. Students have to see the routine common things too. I think most of the clinical faculty appreciate that and, as a result, they're burdened with tremendous amounts of routine work. When you have the ambulatory clinicians making calls or the surgeons doing colic surgery at 2 or 3 in the morning and they're up all night long, it's part of the job they accept gracefully. But it's very rough. There has to be an understanding of this stress by people in other sections of the faculty.

That sounds like advice that a new Dean could very easily apply.

Certainly. He has a rough row to hoe—but with the trust and cooperation of the faculty he should be successful. I'll be sorry to miss this new phase.

What do you see for the future of the College? What would you like the College to become?

That's kind of a tough question because you want to be all things to all people. I think you have to build on our strengths, and Cornell has traditionally been known for educating excellent clinicians and teachers. We've also earned fame for research. We've been the best in several areas of veterinary medicine and I hope this reputation will continue. It seems to me we must be a veterinary school, that we must teach about animal diseases. I would hope that we won't sell ourselves short by studying diseases primarily of importance to people and not to animals. It seems to me that can better be done in a human hospital environment. Although there are a lot of things we can study in our animal patients that can be helpful to people as well as to animals, I really feel that the basic focus of the school has to be animal health and, secondarily, fundamental principles that can be related to people.

I see tremendous potential at this college for the future. I am sure I'm retiring at the wrong time—with a new Dean and a new attitude of financing from the state, the potential of new hospital buildings, and many new faces coming on the scene. Many faculty are in my category and will be retiring in the next year or two. I'd like to see clinical medicine in the forefront of those changes. If we are to provide a service to the animal industries in the Northeast there has to be continued attention to clinical medicine and the service we provide to referring veterinarians. Cases that are referred to us are important for teaching purposes and as a service function to our graduates and animal owners in the area. We are dealing with problems that are ever more complex. And I think as new diseases are recognized—like canine parvovirus and feline leukemia and infectious peritonitis and other diseases we never dreamed about 20 years ago—this school has to be available with research talent and techniques that will help solve them.

Are you planning another book in your retirement?

Not a new book. I probably will continue to be involved with the Animal Health Newsletter and am planning to do at least one more edition of *Current Veterinary Therapy*. It's also possible that I will be involved with the next revision of *Small Animal Dermatology*—only time can tell. There is an old Vermont saying, which I think is very appropriate, "When you are through pumping water, let go of the pump handle." I think that's important. Someone with more energy has to grab the pump handle now but I'd still be glad to pump a little water occasionally.



A new roof, exterior, paddocks, and a paint job, gave a new lease on life to the 100-year-old Dorothy Havemeyer McConville Barn on Route 366, one half-mile east of the College. The facelift was provided by a generous gift from Mrs. McConville and renovations preserved the original character of the structure so successfully that Historic Ithaca awarded the barn a Certificate of Merit at their Annual Meeting. The award was "a complete and pleasant surprise" to Dr. Douglas Antczak whose work in embryo transfer and equine genetics is conducted at the barn and who coordinated the reconstruction and accepted the award on behalf of the James A. Baker Institute and the New York State College of Veterinary Medicine. Laboratory and surgical areas inside the barn are currently being rebuilt as part of the new Equine Genetics Center. The laboratory will be equipped with a grant from the College's Alumni Fund.



Dr. Sharon A. Center received the Norden Distinguished Teacher Award at the 1985 Honor Day awards banquet. The recipient of this award must be a full-time member of the veterinary medical faculty and be primarily engaged in teaching. Preceptorship and teaching ability as judged by responsiveness of the students, moral character and leadership are the primary qualifications for consideration.

An assistant professor in the department of clinical sciences, she is a 1975 graduate of the University of California, School of Veterinary Medicine at Davis. Dr. Center combines lectures on medicine to the third year DVM students, with full-time clinical responsibilities on the small animal medicine service. Her research interests include liver and renal disease.

Photo by C. Harrington

Bruce W. Calnek, Professor and Chairman of the Department of Avian & Aquatic Animal Medicine, has received a grant of \$150,464 from the National Cancer Institute for "Studies On the Avian Leukosis Complex." Dr. Calnek and his co-researchers, Drs. K. A. Schat, J. Fabricant, K. McColl and C. Buscaglia will continue the long-term studies on the pathogenesis of Marek's disease and related herpes virus infection. One of the practical aspects of work in this area at the college has centered on field trials of a bi-valent vaccine combining Cornell's new Marek's disease virus vaccine strain, SB-1, and the widely used HVT vaccine. Together, the two vaccines offer significantly greater protection than a single vaccine against newly emergent "hot" strains of Marek's disease virus.

Duncan C. Ferguson, Assistant Professor of Pharmacology, Department of Pharmacology, has been awarded \$34,560 from the National Institute of Arthritis, Diabetes, Digestive & Kidney Diseases for his project "Renal Thyroid Hormone Uptake & Deiodination." The long term objective of this study is to examine the factors which regulate the peripheral tissue uptake of thyroxine (T₄), the main secretory product of the thyroid gland, and its subsequent metabolism to the most active thyroid hormone, T₃. Emphasis will be placed on the role of the kidney in the whole body production of T₃. The mechanisms regulating its decreased renal production during diabetes mellitus will be further explored.

Jack Henion, Assistant Professor of Toxicology and Equine Drug Metabolism, will study "The Determination of Intractable Organic Compounds by DLI/Thermospray LC/MS and LC/MS/MS" with a three-year \$435,272 grant from the U.S. Environmental Protection Agency. The work will provide practical general purpose analytical methods for toxic non-gas chromatographable compounds. Difficult organic compounds of potential environmental significance will be identified and subjected to on-line LC/mass spectrometer and LC/tandem mass spectrometer studies. The goal will be to demonstrate that DLI LC/MS and/or thermospray LC/MS sample analysis is a suitable and perhaps preferred method of sample introduction for labile, nonvolatile, or polar compounds of environmental significance.

Geoffrey W. G. Sharp, Professor and Chairman of the Department of Pharmacology, has been awarded \$97,524 by the National Institute of Arthritis, Diabetes, Digestive & Kidney Diseases for his study of "Diarrheal Diseases: CA⁺⁺- Calmodulin Phosphorylation." The eventual goal of the study is the successful treatment of the major diarrheal diseases via an understanding of the control mechanisms involved in the regulation of intestinal electrolyte transport and, therefore, fluid movement.

Photo by D. Grunfeld

Dr. Phemister Appointed Dean

Twenty-five years after he received his DVM degree from Cornell, Dr. Robert D. Phemister will return to lead the college as its new dean. His appointment was approved June 1st by Cornell University's Board of Trustees following a search that included candidates from some of the major veterinary institutions in the U.S. and Canada. He will assume his full responsibilities at the New York State College of Veterinary Medicine by October 14, 1985.

Robert D. Phemister, DVM, Ph.D. comes directly from an eight year term as Dean and Professor of Pathology at the College of Veterinary Medicine and Biomedical Sciences at Colorado State University. His administrative experience has extended beyond the Veterinary College in his capacity as Interim Academic Vice President (June 1982-January 1983) and later Interim President (Jan. 1983 until March 1984) of Colorado State University. At the University, College and Department level he has been extremely active, participating on numerous committees and councils.

His career immediately following graduation from Cornell began in the U.S. Public Health Service where he rose from Lieutenant to Commander between 1960 and 1968. For a two year period, 1962-64, he was also a staff scientist at the Armed Forces Institute of Pathology, and for similar length of time was a visiting research pathologist at the University of California, Davis. He has been a faculty member at Colorado State University since 1964 when he was first appointed Section Leader then eventually Director of the Collaborative Radiological Health Laboratory. In 1965, Dr. Phemister became a diplomate in the American College of Veterinary Pathologists and in 1967, he earned the Ph.D. in Pathology from Colorado State University. The next year, he was appointed Associate Professor of Pathology and went on to become Professor of Pathology in 1973. Named an Associate Dean in 1976, he served one year before being named



Dean of the College of Veterinary Medicine and Biomedical Sciences in 1977.

The new Dean's interests are wide-ranging. He was Commissioner of the Colorado Advanced Technology Institute 1983-84 and president of the Association of American Veterinary Medical Colleges (1982-83). He has served on the National Research Council of the National Academy of Sciences and on the Board of Directors of the Floyd Cross Foundation of the Colorado Cattlemen's Association and the Institute for Computational Studies. He has participated on commissions or special committees for the Food and Drug Administration, the American College of Veterinary Pathologists, the National

Association of State Universities and Land Grant Colleges, the Denver Zoological Foundation, the Sixth Symposium on Veterinary Medical Education, and the United States Department of Agriculture's Western Regional Council. While at Colorado State University, he was a leader of a delegation to establish an animal health program in Peru with the Small Ruminants Cooperative Research Support Program of AID. He was instrumental in the establishment of a Memorandum of Agreement between Colorado State University and the Gansu Academy of Sciences and Gansu Agricultural University in the Peoples Republic of China. Somewhat closer to home, Dr. Phemister was also active on the steering committee of the Alberta-Colorado Council for Economic

and Technology Development in 1984. Within the Fort Collins community, Dr. Phemister was on the Board of Directors of the Poudre Hospital Foundation and served as Honorary Co-chairman of the Fort Collins Arts Marathon. He is also a member of Rotary International.

Dr. Phemister has been the principal investigator for approximately \$6 million and co-investigator for approximately \$5.5 million of funded research principally in the area of long-term effects of whole-body exposure to ionizing radiation. He is the author of over 60 papers, chapters, and abstracts in the areas of prenatal and neonatal development, renal pathology, radiation pathology and canine reproductive biology. He is also a member of many scientific and professional organizations, including the American Association for the Advancement of Science, the American College of Veterinary Pathologists, the AVMA, the Association of American Veterinary Medical Colleges, the Colorado Veterinary Medical Association, the International Academy of Pathology, and the Radiation Research Society. He was the recipient of both the Charles A. Lory Award and the Distinguished University Leadership Award from Colorado State University in 1984, and, in the same year, the Special Service Award from the Fort Collins Chamber of Commerce. He is listed in *Who's Who in America*, *Who's Who in the West*, *Who's Who in Frontier Science and Technology* and *American Men and Women of Science*. In Honor Day ceremonies at his 1960 graduation from Cornell, he received the James Gordon Bennett Prize (anesthesia), Alpha Psi Prize (for advancement of the profession), the Jacob Traum Award (pathology and microbiology) and the Horace K. White Award for scholastic achievement. Dr. Phemister is also a member of Phi Kappa Phi, Phi Zeta and Sigma Xi. He was a Cornell National Scholar from 1954-60 during which he completed two years of undergraduate study in the College of Agriculture and Life Sciences, followed by admission to the New York State College of Veterinary Medicine.

Veterinary
Viewpoints

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