Vitamin Deficiency Considered in Equine Form of Lou Gehrig's Disease

Cornell veterinary medical researchers who study equine motor neuron disease (EMND), which closely resembles a form of amyotrophic lateral sclerosis (ALS) or Lou Gehrig's disease in humans, see vitamin deficiency as one possible clue to the debilitating nerve damage characteristic of the disease.

There is evidence in EMND horses that an "oxidative insult" may be involved in motor neuron death, and that a deficiency in protective antioxidants may be at least partially responsible for the disease, according to Dr. Thomas J. Divers, associate professor of medicine. Blood tests in recent EMND cases referred to Cornell found "incredibly low, even undetectable levels" of vitamin E, said Dr. Divers. Vitamin E is an antioxidant that counteracts the harmful free radicals that are naturally produced during metabolism in animals and humans.

Coupled with the recent discovery by researchers at the Massachusetts Institute of Technology and Massachusetts General Hospital of the defective human gene that fails to initiate production of anti-radical enzymes in ALS patients, the Cornell finding "could indicate an interplay of antioxidant vitamins and enzymes, all working together in healthy bodies, and a similar mechanism for the neurodegenerative disorder in humans and horses," Divers said.

The underlying changes in EMND were first recognized in 1989 by Dr. John F. Cummings, professor of anatomy and member of the team that published its findings in 1990. The horse is now an animal model for ALS research. As the Cornell veterinary clinic became a national "magnet" for suspected EMND cases, an interdisciplinary research team was assembled with funding from the ALS Association, National Institutes of Health, American Horse Show Association, and college alumni. What first appeared to be an equine disease of New York, Pennsylvania, and New England, is now known to occur throughout the United States.

Like human ALS patients, EMND horses experience progressive muscle wasting as dying motor neurons fail to transmit signals to muscles, Cummings noted. Motor neuron changes in the spinal cords of human and equine victims of the disease "are virtually identical—the same cranial nerves are affected and the same ones are spared," Divers reported. Weight loss, difficulty standing, and fasciculations (quivering of the leg and shoulder muscles) are other signs of EMND. If the 65 EMND horses studied by Cornell are typical, symptoms often appear around middle age—10 to 15 years in horses and about 50 years in humans—and the eventual result can be death. But some horses survive

Continued on page 8
Construction Update

With initial plans submitted to New York State in the early 1980s as a first step toward renovation of the teaching hospital, ground-breaking ceremonies for what became, after much planning, the largest construction project ever undertaken at Cornell took place on June 9, 1990.

That fall, the digging began as underground utilities were moved from the path of construction, and for two and a half years now, students, faculty, and staff have maneuvered (almost always cheerfully) around the various construction zones.

Now the rewards are becoming visible. The concrete has dried on the blocks of the pedestrian plaza that link Schurman Hall, the new Veterinary Education Center, and the Veterinary Research Tower, providing an elegantly simple entrance to the college. The young trees in the plaza show every sign of wanting to sprout leaves in the near future, and a general air of calm has replaced the frantic winter scene of hard-hatted workers, rattling machines, and earth-moving vehicles.

The Veterinary Education Center is now enclosed. The plastic wrapping that has covered its glass facade all winter will soon be removed, and the inside work—two lecture halls, a large dry lab (that can be divided into as many as four smaller labs), and an extension of the Flower-Sprecher Library—is expected to be completed in June.

The steel structure for the Veterinary Medical Center, the largest component of the project, went up this winter. The medical center will house a new teaching hospital with expanded surgical facilities, greatly enhanced diagnostic imaging capabilities, a state-of-the-art intensive care unit and, along with newly designed and equipped wards for the usual large and small animals, a ward designed specifically for exotic patients. Scheduled for completion in the spring of 1995, the new Medical Center will also provide much needed space for laboratories and offices.

Once the major construction is completed, renovation of the present teaching hospital is planned, with the intent of making it a secondary teaching center especially appropriate for instruction with live animals.

College’s 100th Anniversary

Save these dates—

September 4, 1993
Centennial Kick-Off Celebration
at Ithaca, in conjunction with the N.Y.S.V.M.S. Annual Meeting

March 19-22, 1994
Centennial Anniversary Weekend and Annual Conference for Veterinarians, at Ithaca. Traditionally held in January, the 1994 annual conference will be held in March to coincide with the celebration of the 100th anniversary of the College of Veterinary Medicine at Cornell.

College Alumni Directory to be Released in Fall 1993

Scheduled for release in September or October, the Cornell University College of Veterinary Medicine Alumni Directory will be the definitive reference to more than 3,271 of our graduates. Don’t miss the opportunity to be included in it!

Harris Publishing Company, the official publisher of the directory, recently sent a questionnaire to all alumni. If you have not yet returned yours, please do so immediately so that your personal information will be accurately included in the directory.

In the next few months, Harris Publishing will be calling each alumna/us to verify listings. If you would like to reserve a copy of the directory, please advise the Harris representative when he or she calls; this will be your only opportunity to order the book.
New Director for Baker Institute; Center for Canine Genetics and Reproduction Established

Dr. Gustavo Aguirre

Dr. Gustavo Aguirre, V.M.D., Ph.D., comes to Cornell this semester as director of both the Baker Institute and its newly established division, the Center for Canine Genetics and Reproduction. Dr. Aguirre succeeds Dr. Leland Carmichael who, when appointed in 1991, expressed "the hope that we would soon find the right individual to take over its leadership and carry out the purposes for which it was founded."

A renowned ophthalmologist whose research focuses on progressive retinal atrophy and other inherited diseases of dogs, Aguirre earned his undergraduate and professional degrees from the University of Pennsylvania, and received postgraduate training in ophthalmology from Pennsylvania's Graduate School of Medicine with a residency in the School of Veterinary Medicine. He left Philadelphia in 1969 to accept a postdoctoral fellowship at the prestigious Wilmer Ophthalmological Institute of the Johns Hopkins University School of Medicine, then came to Cornell and the Baker Institute in 1971 as a research associate in comparative ophthalmology.

Aguirre returned to the University of Pennsylvania as an assistant professor of ophthalmology in 1973 and later held joint appointments as full professor in both the veterinary and the medical schools. He was chief of the Section of Ophthalmology in the Department of Clinical Studies, then for 10 years directed the Inherited Eye Disease Studies Unit of the Section of Medical Genetics in the School of Veterinary Medicine. He was president of the International Society of Veterinary Ophthalmology 1986-89, and has received many other recognitions as well.

In addition to Aguirre, the center's faculty includes Drs. Vicki Meyers-Wallen, Gregory Acland, Jharni Ray, and Bennett Hershfield. Dr. Meyers-Wallen, a canine theriogenologist, represents the "reproduction" component of the center. Drs. Acland and Hershfield contribute expertise in classical and molecular genetics, respectively. Acland designs strategies for identifying and mapping defective genes through linkage analysis based on selective, informative breedings. Hershfield specializes in the cloning and mapping of candidate genes once they have been identified. Dr. Ray approaches the study of retinal degeneration from the direction of possible gene therapy applications. She also studies lysosomal storage disorders, another group of inherited metabolic diseases of dogs and other animals that affect the eye's photoreceptor cells.

The center is the third species-oriented Institute division, joining the Cornell Research Laboratory for Diseases of Dogs, directed by Dr. Carmichael, and the Equine Genetics Center, headed by Dr. Douglas Antczak.

—Jeanne Truelsen

After the storm— Major Rebuilding at Miami's Metrozoo

I recently had a chance to visit with a few of our veterinary alumni in central and south Florida. Most escaped the ravages of Hurricane Andrew with minimal or no damage to their practices. One of our alumna who was not so fortunate is Dr. Christine Miller '85, chief veterinarian for the Miami Metrozoo.

In the early morning hours of August 25, 1992, the Metrozoo stood directly in the path of Hurricane Andrew. The zoo staff had received enough advanced warning to get many of the animals into some kind of shelter, ranging from the central holding buildings within each exhibit to small cages in a garage. Dr. Miller and eight others stayed inside the animal hospital for the duration of the storm.

She describes the experience as "the most terrifying three hours" of her life. First the fire alarms in the building were set off. Then the power went out. The windows in part of the building blew out, and the storm invaded the front area. "I really didn't expect that I was going to be killed," she recalls. "I kept hearing things crashing into the walls. I could see streaks of things fly by the windows, whole trailers flying past. And all I could think of was that the animals were going to be dead, that they were never going to be able to handle it. I was in despair."

When the storm subsided, Dr. Miller and her staff surveyed the damage. While only six mammals were killed, losses were staggering, presently estimated at $14 million. The aviary was gone and with it 120 rare and beautiful birds. Huge tractor trailers were blown into the rhino enclosures. The animal food preparation facilities were destroyed and many other important assets were demolished. The landscape was ruined—more than 5,000 trees lost and shrubs, hedges, ground covers, sod, and irrigation systems gone.

Several fund raising events have helped restore many of the exhibits and, seven months after Andrew, the zoo is partially operational. "I don't think it was ever a given fact that the zoo would reopen," Dr. Miller says. "It was the community's support that convinced us that we could and would reopen."

Dr. Miller continues to put in 18-hour days, six or seven days a week, her hard work and resourcefulness a quiet testament to her training and perseverance. Readers who are interested in learning more about the impact of Hurricane Andrew on the Metrozoo can reach the zoo at (305) 255-5551.

— Tim Redden
Assistant Dean for Public Affairs
Those "F.H. Fox is 65" notices pasted on stop signs and painted on bridge abutments all over Tompkins County are now obsolete by five years. Dr. Francis Fox celebrated his 70th birthday in March, and commenced his mandatory retirement from the veterinary faculty at the end of the 1992 fall term. Retirement, that is, after his own fashion. Fox's birthdays have (despite a degree of disapproval on his part) become tradition around the college as a sometimes over-exuberant tribute to a teacher whose personal history has been intimately connected with the course of the college for nearly half a century; who served in what he considers the very best of times for veterinary practice; and who hardly knows what retirement means except simply to continue doing what he enjoys best.

Fox graduated with a D.V.M. degree from the college in 1945. He vividly recalls donning coveralls and taking his first three barn calls the afternoon following his morning graduation ceremony. For 45 years, save for the 1946-47 academic year spent teaching at Ohio State University, he has happily remained at his alma mater, instructing generations of Cornell veterinarians in large animal medicine, surgery, and ophthalmology, and imparting his uncanny sense of physical diagnosis. All with a dose of rough humor and unveiled, if somewhat counterfeit, contempt. There has in all that time been nothing else he cared to do, so it is eminently gratifying to Fox that on his retirement the college furnished him with an office, his colleagues invite him to lecture regularly in their courses, and he continues to do his committee work. "One by one, the faculty people have asked me to do what I've been doing...I wouldn't know what else to do. I'm still working, I still have a car to make calls to my old clients, and it's very much appreciated."

Fox is seated in his retirement quarters on the second floor of the teaching hospital, amid the old metal furniture he insisted on bringing along when the college moved into that building in 1957. It says something of the length of his career that he is one member of the college who worked in its original home, now the School of Industrial and Labor Relations at the other end of Tower Road. If his somewhat battered desk and metal swing-arm lamp have not changed over the decades, Fox himself has seen major changes in his profession and in his students during his tenure. The first change he points to is the development of drugs in the 1940s. "Many of the drugs that became available after World War II were the result of increased development during the war," he says. He refers specifically to antibiotics, especially penicillin (once, he notes, called a "wonder drug"), and sulfa drugs, which were developed more rapidly because of the war. "Conditions that I had studied about and been exposed to as a student in clinical calls, in cases where we would ordinarily give only supportive therapy, expecting the animal to die—all of a sudden, we were treating them and the animals were living!" Fox recalls.

Another significant change he notes is in the emphasis in large animal medicine, away from treatment of single diseased animals to prevention of disease through herd management. "Twenty-five years ago," Fox says, "rural practitioners were accused of a so-called 'fire engine' practice; the major emphasis was on diagnosis and treatment of a single patient. When one would become sick, we would rush out to see the animal. Then there was a big push to prevent this by routine examination of the entire herd, to manage the herd. So, veterinary practice shifted its focus to matters of environment and regimen—proper vaccine programs, cleanliness, good ventilation, and nutrition."

In subsequent years, this preventive approach, coupled with farm economics, gave rise to a further evolution: the team approach of production medicine. With the turn to computer use in farm management and larger herds, veterinary practice by
teams comprised of a nutritionist, a pathologist, an obstetrical specialist, and perhaps a specialist in mastitis, became a cost-effective element of farm teams comprised of a nutritionist, a practitioner looking at one sick cow changes, but not without a trace of nostalgia. "Since I was brought up the other way, with an emphasis on single diagnosis, probably I enjoyed it more from a standpoint of one-on-one, a practitioner looking at one sick cow and trying to do something." The nostalgia is understandable; Fox's ability as a diagnostician of large animal, particularly bovine, diseases is legendary. His students most often cite, as his classroom legacy, an uncanny capacity to impart the nuances of diagnostic technique; to "use your God-given senses," as Fox himself describes the diagnostician's skill. "He taught all of us," remarked a former student, "to use our hands, our eyes, our noses, all of our senses."

Veterinary students and their professional interests have changed too, over the last five decades. When Fox graduated, he says, 85 percent of his fellows went into "mixed practice," treating both large and small animals; 60 percent of them worked only with large animals. But in the last 30 years he has seen that ratio reversed; only 5 percent, he guesses, will deal exclusively with large farm animals. Small animal medicine rules the day. What is more, until the early 1970s the college had a "farm practice" requirement for admission, meaning that students had to spend the equivalent of a summer or two working on a farm to qualify for admission. That requirement has lapsed because the world has changed, as has the character of the student body.

Fox's long acquaintance with his profession has given him a broad and very personal perspective on recent medical history as a piece of American cultural history. "I think," he considers carefully, "that my generation went through the best part of veterinary medicine that has ever been known, because we happened to be here at the time when antibiotics, the sulfa drugs, and other new drugs all came into being. We had an advantage, too, at the time of the relatively small farm where wonderful bond relationships evolved from family friendships; and when the profession, particularly its large animal element, was a respected cornerstone of any rural community."

Fox's birthdays—"birthday tragedies," he calls them—have become legend as well. He has had an embalmed cow placed in his office, at once prank, gift, and icon of his life; his office furniture has appeared atop the Veterinary Research Tower, draped with a banner proclaiming ironically the accession of a practitioner to the ivory tower. And there has been the facetious count of Fox's age on signs posted across the local countryside. The merriment began in the early 1960s, when classes were smaller and Fox knew every student by name. "I have always had a sense of humor," he explains, meaning at the expense of those early students, who at some point "decided that turnout is fair play." But that was then. "It used to be enjoyable because I felt that I deserved it. They don't believe me, but I'm too old to enjoy it any longer, especially now that I no longer know the students as well as I did when the classes were smaller and I was more active."

Retirement has brought tributes more to his taste. In 1990, a committee of Fox's former students instituted the Dr. Francis H. Fox Scholarship Fund as a "measure of gratitude [for] a friend, teacher, and fellow veterinarian." And every year for the past 30, he guesses, he receives as many as five letters yearly, notes of appreciation from past students, many written years after graduation. These please him because they are signals of the influence he has sometimes unwittingly had on the lives of fellows in a practice he loves and respects. "Much of what I do today is the result of your training," reads one of the many letters he received upon retirement. "I keep the notes from your courses with me, and refer to them frequently. If I get twisted up on a case, I consistently read them, and follow the wisdom you gave us 20 years ago. I still remember many of your lectures. Since you were one of the best teachers I ever had, I try to emulate your style in the courses I teach, but I lack your charisma and sense of humor... We need more Dr. Foxes to keep the profession on a sound footing."

Fox's own expectations of his life and career were formed early, on the model of his old mentor in Clifton Springs, New York, William H. Salisbury, D.V.M., Ontario Veterinary College '94 (that's eighteen '94), who, says Fox, "practiced, and died after practicing 62 years. He died of a heart attack in his office. That's the way I thought life was supposed to be. He enjoyed it, but he wasn't that rich." Enjoyment, pleasure, satisfaction, gratification are the words he employs about himself in retrospect. "I've enjoyed the whole package. I guess, probably, why I'm still here is that I've always enjoyed teaching and the relationship with the younger generation."

Many of that 'younger generation' have themselves become, over the succeeding decades, venerable national figures in veterinary practice and its professional organizations. They gathered, with representatives from the college, Cornell University, and other organizations, in the Statler Hotel on January 12 for a gala honoring Francis Fox on his retirement. One of the evening's highlights was the award of the first Fox Scholarship, shared by third-year veterinary students Amy Rath and Cindy Brown. Contributors to the fund, it was remarked, spanned at least six decades in the life of the college.

As remembered from the singular perspective of another former student, Robert Phemister, dean of the college: "Unlike the rest of you," Phemister told the assembly, "I have had the peculiar experience of leaving here as his student, and returning as his dean. He intimidates me as a student a whole lot more than I can imagine intimidating him as a dean. He's been a marvelous colleague. On the other hand, I'm glad I'm his fourth dean, not his first."

Perhaps Fox's greatest legacy of his years of teaching and practice is a profession of large animal practitioners consisting in great part of generations of his own students. Dean Phemister went on to note of Fox that, "He's the last of the individuals who were my professors when I was a student here; the last to leave the active faculty. And so for me personally, his retirement represents the end of an era. That era, as far as Francis Fox is concerned, is not quite over. He will continue to receive his salary in the wealth of satisfaction he gets for what he has done daily for all those decades."

— Robert Hill
PEOPLE, AWARDS, BOOKS

Notes

Cornell Receives Foundation Funds for Companion Animal Behavior Residency Training Program

The Morris Animal Foundation has awarded a matching grant to the College of Veterinary Medicine in support of a companion animal behavior residency training program for a graduate veterinarian. The recipient is Dr. Katherine Albro Houpt, director of Cornell's Behavior Residency Training Program, which began in July 1992. Ilanna Reisner, D.V.M. (Oregon State University '84), has been selected as resident. The foundation's eight-member scientific advisory board evaluated several proposals before naming Cornell to receive the matching grant.

Dr. Houpt, editor of the Cornell Animal Health Newsletter and Applied Animal Behavior Science, has been director of the Cornell Animal Behavior Clinic since 1975. The clinic diagnoses and treats behavior problems of horses, dogs, and cats. Houpt also teaches a number of electives, including "Behavior Problems in Dogs and Cats" and "Behavior Problems of Horses" and coteaches "Farm Animal Behavior." She also lectures in physiology, companion animal nutrition, and horse management.

Dr. Reisner has practiced in Boston, Massachusetts and Portland, Oregon and spent a year as a small animal intern and instructor at the Veterinary Clinical Center, Michigan State University. She is a Ph.D. candidate in behavioral physiology at Cornell's College of Veterinary Medicine.

Save the Date
November 18-21, 1993

An array of exciting events from Thursday night through Saturday night:
• Talks by Cornell President Frank Rhodes and Sheldon Hackney, President of the University of Pennsylvania.
• Exciting lectures and presentations by Cornell faculty members.
• Gala dinner dance.
• A celebration of 100 years of football rivalry between Cornell and Penn (tailgate party, game, and victory celebration are what we have in mind).
• Breakfast with present and former veterinary college students, staff, and faculty members.

Plan to join us!

For further information, write or call:
Barbara H. Kaplan '59 or L. William Kay '51, Co-chairs
Philadelphia '93
Cornell University
303 Day Hall
Ithaca, NY 14853-2801
(607) 255-0645

Olafson Medal Awarded to Three Pathologists

Established in 1987 to honor the memory of Cornell University Emeritus Professor Peter Olafson (1895-1985), the Olafson medal for 1992 has been presented to three outstanding veterinary pathologists. They are: Dr. William J. Hadlow, a graduate of Ohio State University who spent much of his professional career at Rocky Mountain Laboratory; Dr. Hans-Jorgen Hansen, who graduated from the former Royal Veterinary College in Stockholm and was director of the State Veterinary Medical Institute from 1958 to 1982; and Dr. William J. ("Bill") Hartley, a graduate of the Royal Veterinary College in England, who practiced first in England and then in New Zealand at both the University of Sydney and the Wallaceville Research Station.

Recipients of the international Olafson award are chosen on the basis of their exemplary scholarly performance in the field of veterinary pathology. The award committee, staffed by Olafson's students and colleagues, seeks out qualified candidates whose accomplishments will ensure survival of the Olafsonian traditions of dedication and breadth of horizon leading to outstanding contributions in diagnostic service, teaching, and research—three areas in which Olafson himself made highly laudable contributions. An endowment fund to provide for striking future gold medals has been set up at Cornell University with contributions from family members, friends, and students of Peter Olafson.

New Book

Life Before Birth and a Time to be Born

Life Before Birth and a Time to be Born, a new book by Dr. Peter W. Nathanielsz, M.D., Ph.D., answers the mystery pondered by every pregnant woman and every physician since Hippocrates: Exactly what determines the moment of birth? Dr. Nathanielsz, who is director of the laboratory for Pregnancy and Newborn Research at the college, turned from obstetrics practice 30 years ago to biomedical research in the hope of answering fundamental questions about premature labor and abnormal fetal growth. His Cornell laboratory was the first, in 1991, to show in sheep that the chemical signal to start labor comes from the nerve cells in the fetal brain, rather than from the mother.

Twenty-six centuries ago, Hippocrates professed that the baby "decides" when the birth process begins. Proof came only recently with ultrasound monitoring, biomedical techniques to measure hormones and other blood constituents, and computer analysis of fetal brain waves, heart rates, and the patterns of uterine contractions.

Dr. Nathanielsz points out that Life Before Birth could not have been written 10 years ago, noting that physicians who have been out of school that long will find much of the information in it new. While he included enough detail to engage scientists and physicians, Nathanielsz said that he deliberately wrote Life Before Birth with the intention of making the information understandable to nonscientists. "Hopefully, it will say something to every mother and father-to-be."

Besides showing how the fetus is the catalyst for birth, Life Before Birth addresses such questions as: Why does the fetus make breathing movements? Why does it stop breathing when the oxygen supply is short? How do cells in different parts of the fetus "talk" to each other during development? Can the fetus tell time?, and How does maternal lifestyle affect the fetus?

Life Before Birth 264 pages, Promethean Press, 1992 (ISBN 0-916859-55X) $25, is available at your bookstore or can be ordered directly from the publisher: Promethean Press, PO. Box 6827, Ithaca, NY 14851 Tel: (607) 257-3278.
James Law Professorships Awarded

Two new James Law Professorships have been conferred in the current academic year. Dr. Alexander J. Winter was named James Law Professor of Veterinary Microbiology, and Dr. Alexander de Lahunta to be the James Law Professor of Veterinary Anatomy.

Dr. Winter is recognized widely for his work on bacteriological diseases of the bovine reproductive system in, as he says, "two separate chapters," the first dealing with Campylobacter fetus, and currently with Brucella abortus. In his earlier work on campylobacteriosis, manifested in cows primarily as a chronic infertility, Winter and his colleagues developed a fluorescent antibody test for diagnosing infected bulls; that achievement contributed to the eradication of a then widespread disease in artificial insemination centers. Dr. Winter and his graduate students characterized the antigens of C. fetus that are responsible for virulence and the nature of the protective immune response in the reproductive tract. They elucidated the transport of antibodies from the bloodstream into the reproductive organs, and demonstrated the therapeutic efficacy of vaccination in this disease. Winter's laboratory was among the first to recognize the importance of antigenic variation of bacteria as a means for their persistence in the host.

Winter's interests now focus on Brucella abortus, also a human pathogen spread through unpasteurized milk. He and his colleagues have performed extensive studies on the outer membrane proteins of B. abortus, and have characterized the nature of antibody-mediated and cell-mediated immunity to this pathogen. Winter describes these efforts over the years as "a process of learning more about Brucella abortus and the nature of host immunity, as well as the reasons why this organism can persist in the body for prolonged periods despite the production of an apparently effective immune response." His principal objective is the development of an effective subcellular vaccine, an equally important aim in other diseases caused by this category of pathogens, which include human tuberculosis and leprosy.

Winter acquired his interest in reproductive diseases while in veterinary school at the University of Illinois. "At the time it never entered my head that if I pursued this field it would be in research. Almost all of us entered veterinary school with the idea of practicing veterinary medicine." But during his years of graduate school at the University of Wisconsin, research became Winter's consuming interest. He came to Cornell in 1963 on a research appointment. "I had no teaching responsibilities when I came here, but gradually took on when I realized my interest in teaching," he said. In spite of his passion for the laboratory, Winter is a classroom presence highly regarded by nearly 30 seasons of students. "Both graduate and undergraduate teaching have been extremely satisfying things to do," he says. "I enjoy thinking of the students whose lives I may have influenced."

Dr. Alexander de Lahunta's wry good humor and crisp-as-a-leaf manner also have been familiar to Cornell veterinary students for nearly 30 years. Students call him "Dr. D." and have acknowledged their appreciation with three Norden Awards for Distinguished Teaching, the most recent in 1992. With over 500 student contact hours each year, Dr. D. definitely is doing something he likes.

Dr. de Lahunta's clinical work, consulting, research, and teaching of anatomy and neuropathology are a seamless round of daily activities that begin around 2:30 a.m. "That may seem like a strange hour for clinical rounds," he says, "but it leaves me free for teaching during the day. Besides," he grins, "animals don't really mind being awakened in the middle of the night."

His research and teaching are based on his activities in the clinical hospital. "I incorporate the cases that come to the hospital into my course in clinical neurology," he explains. He describes himself as "just plodding along, recognizing neurological disorders that haven't been described before." Well, one man's plodding.... Since earning D.V.M. (1958) and Ph.D. (1963) both from Cornell, de Lahunta has published more than 170 articles, authored two editions of Veterinary Neuroanatomy and Clinical Neurology, and coauthored three other books. His Friday noon rounds have become nearly legendary, with up to 100 students, professors, and clinicians making up the weekly audiences. Students get de Lahunta straight on: "I'm just myself," he says. "I don't hesitate to present things out there even when I don't have the foggiest idea of what's going on. That's part of the learning process. I just think out loud so students can learn what thought processes go into analyzing a problem."

Miranda Smith '93 remarks, "I think we see more of him than of any other professor here. He's one of the most-loved teachers in the college because of his dedication to teaching and because of the pleasure he seems to take in the progress of each student. He has a vision of each student as a future colleague, and that reinforces our own progress toward that goal."

In 1988, the College of Veterinary Medicine established six James Law Professorships to recognize faculty members who have earned national and international distinction in veterinary medicine and the biomedical sciences, and who demonstrate academic excellence and leadership. Dr. George Popeniesiek, who retired in 1988, was the first James Law Professor. Two more were accorded the honor the next year: Dr. Bud Tennani, professor of comparative medicine; and Dr. Robert Wasserman, professor of physiology and former chair of the department.

— Robert Hill
Alumnus Into Orbit —
Fettman Picked by NASA for Spacelab Life Sciences-2 Flight

Dr. Martin I. Fettman, first veterinarian to go into space. If all goes as scheduled, when the College of Veterinary Medicine kicks off its 100th anniversary celebration on September 4, one of its alumni will be orbiting the planet aboard Spacelab Life Sciences-2 (SLS-2) on the longest flight to date. Dr. Martin Fettman M.S. '76, D.V.M. '80, Ph.D., has been selected to be prime payload specialist on the flight scheduled to blast off August 25 and remain in orbit 14-16 days. He is the only nonprofessional astronaut on the flight crew of seven.

Fettman, who is taking time from his teaching and research duties at Colorado State University College of Veterinary Medicine and Biomedical Sciences for pre-flight training, says he wouldn't trade the experience for anything. "The work is fascinating to say the least, and as a flight crew member, I feel like I am really contributing to both the mission and the future of the space program."

Fettman, who has been at Colorado State since 1982 and section chief of Clinical Pathology there since 1988, will be participating in numerous human and animal experiments in space. These include isotope clearance studies for metabolic measurements, and in-flight collection of tissue specimens to avoid the effects of gravity on tissue changes. He will be both the operator and subject of an extensive battery of pulmonary, cardiovascular, and metabolic function studies. Also planned are neurovestibular studies using rotating chairs, rotating domes, head movements designed to elicit motion sickness, and experiments to test postural reflexes and perception of movement in a weightless situation.

Vitamin Deficiency
Continued from page 1

and regain weight when the disease progression is mysteriously arrested, although they never fully compensate for the irreversible loss of motor neurons. That could pose a danger to unwitting buyers: EMND horses can stumble and injure riders, Cummings notes.

Dr. Hussni O. Mohammed, epidemiologist on the EMND team, is sorting through 123 putative risk factors in the search for disease causes. Among the variables under consideration are management practices (affected animals come from stables with as few as 3 horses and as many as 90), breed (all breeds appear to be affected), and horse vices (cribbing, for example, when horses may ingest wooden stall materials that could contain chemical preservatives).

Noting that many EMND horses are not pastured where they can eat fresh grass but rather are fed commercial feeds and cut hay, Mohammed includes nutrition in the list of possible factors. According to Divers, many commercial horse feeds are low in vitamins, including vitamin E, as are hay crops in certain parts of the country.

— Roger Segelken