Tufts
VETERINARY NEWS
TUFTS UNIVERSITY SCHOOL OF VETERINARY MEDICINE SPRING 1984

Tufts' Wildlife Clinic Takes Off Successfully

Life in the veterinary profession is not without its dramas — particularly for wildlife veterinarian Charles Sedgwick, D.V.M., associate professor of environmental studies at Tufts University School of Veterinary Medicine and director of the school's new Wildlife Clinic.

Recently, Sedgwick worked before a tense and silent audience of students and colleagues to remove a polar bear's damaged canine tooth, while the 900-pound animal slumped sedated from three anesthesia-loaded darts which had been discharged into its rump from Sedgwick's dart gun. The procedure, which took place at the Worcester, Mass. Science Center, might have been a routine one — if walking into a dangerous animal's den to put your hands willingly into its mouth can be called routine — had it not been for the fact that the bear's mate had, with inconvenient timing, given birth that morning to twin cubs a mere steel door away.

The dental work had been planned to coincide with the bear Ursa Major's temporary removal to Boston's Stone Zoo *before* its mate, Ursa Minor, cubbed. Major's removal was necessitated by the fact that wildlife specialists at the Science Center know that bear cubs born in proximity to an adult male live in grave danger of being killed by either the male or their desperate mother. Ursa Minor's unfortunate biological timing made the dental procedure all the more difficult, since only speed and silence in expediting the task would insure the safety of the cubs which, if they survived, would be the first in many years to grow up in captivity in New England.

The operation was successful. Sedgwick neatly removed a fang measuring three inches from tip to root, and though Ursa Major couldn't confirm it, the veterinarian probably saved the animal a good many future

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Ursa Major, a denizen of the Worcester Science Center, opens wide for the extraction of a damaged tooth by Dr. Charles Sedgwick, director of the Tufts University School of Veterinary Medicine's Wildlife Clinic.

Tufts Receives Full Accreditation Status At Earliest Possible Time in Development

For the first time in history, New England has a fully accredited veterinary school for the education of the region's future veterinarians.

Following approval by the American Veterinary Medical Association (AVMA), Tufts University School of Veterinary Medicine has been given full accreditation status. Tufts joins the ranks of 25 other U.S. veterinary schools to have received the approval of the veterinary profession's accrediting body, the AVMA. Three additional new veterinary schools are currently provisionally accredited.

The veterinary school, now in its fifth year of operation, received its full accreditation status at the earliest possible time in its development. The school, which has been operating, as all new schools do, with provisional accreditation from the AVMA, was not eligible for full accreditation until after it had graduated its first class of veterinarians in June, 1983.

Says the school's dean, Franklin M. Loew, D.V.M., Ph.D., "Full accreditation officially recognizes the extraordinary efforts of Tufts University's faculty, staff and students over

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Message from the Dean

While agriculture is not as important to the overall economy of Massachusetts and New England as it is to the economy of, say, Iowa or California, it is far more important than most of us realize. Take, for example, these selected recent figures for Massachusetts compiled by the U.S.D.A. and the Massachusetts Department of Food and Agriculture:

	Mass. State Rank	Percent of U.S. Total Production	1982 Cash Receipts
Milk	38	0.4%	$87,870,000
Eggs	35	0.5	21,910,000
Cattle & Calves	46/44	0.2	8,237,000
Hogs	40	0.1	7,765,000
Sheep & Lambs	34/37	0.1	214,000
Turkeys	-	-	2,379,000
Greenhouse, nursery	17	-	92,000,000
Cranberries	1	43.7	58,916,000
Apples	13	1.2	15,344,000

In addition, of course, is the total livestock inventory value, set by U.S.D.A. at $107,517,000 in Massachusetts. Thus if annual production is added to the inventory value, Massachusetts has a total direct animal agriculture value of almost $250,000,000 in a year. All of us in veterinary medicine have a special responsibility to protect this quarter-billion-dollar resource. One shudders at the thought of Haiti's recent experience, where all 250,000 pigs were slaughtered because African Swine Fever, the incurable viral disease, somehow entered the country. It cost that country $16,000,000 plus the loss of subsequent production. Closer to home, in the state of Pennsylvania, avian influenza is causing a massive loss of chickens and millions of dollars.

Every state requires a solid cadre of private practitioners, competent diagnostic laboratories, continuing education opportunities stressing new information, and a research and testing capability responsive to known state needs and unexpected crises. Tufts' veterinary school is increasingly finding a role in all of these activities. Working along with the University of Massachusetts and the Massachusetts Veterinary Medical Association, we hope to provide the Commonwealth with an animal health infrastructure of which we all can be proud. The recent appropriation to Tufts of $3,325,000 by the Massachusetts legislature helps us maintain these services for livestock owners, private practitioners and the public at large, and we all appreciate it.

Winter is a particularly New England season and in this Orwellian winter of 1984 I wish to review some of the school's accomplishments and some of its challenges. In the two years since I began working here, the first class graduated and the second one will soon graduate; full accreditation was recently awarded by the A.V.M.A.; and the Large Animal Hospital was completed and put into operation; a $12 million contract with the U.S. Agency for International Development was conceived and secured; the Commonwealth of Massachusetts has begun a major annual appropriation, and a Tufts Center for Animals has been established to examine important issues such as urban animal control and the emerging field of veterinary ethical studies. All this has come about through the efforts of a hard-working, talented and dedicated staff.

We also have some continuing challenges. The school should make a renewed effort to seek the counsel of many experienced practitioners and animal owners and breeders. We should be more sensitive to the needs of our hospital clients and their referring veterinarians and to the animal-interest organizations of New England. And we must not forget, in our haste, many of our earliest friends and supporters. I hope you have begun to see signs that the school's faculty, staff, and students are making special efforts to be a part of Massachusetts' and New England's agricultural, equestrian, small animal, and wildlife communities. If you don't see this, please let me know, and do so as candidly as you wish. I value all your comments.

Franklin M. Loew, D.V.M., Ph.D.
Dean

Accreditation Given to TUSVM

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the past five years. Tufts trustees, President Mayer and many friends of the school have shown their support in many ways, and this milestone marks those efforts."

John C. Hoy, president of the New England Board of Higher Education, the organization which instituted the initial study for a New England veterinary school, adds, "I take great pride in this recent development at Tufts' veterinary school. The school's leadership, in the persons of Dr. Mayer and Dr. Loew, guarantees that it will be a leader in the veterinary medical profession."

The AVMA began the process of accrediting veterinary schools in the early years of the 20th century. Before that time, schools were "approved" on a more informal basis. The last approved New England veterinary school was at Harvard University, from 1882 to 1902. Tufts' immediate predecessor in New England, Middlesex Veterinary College, had not earned full accreditation when it closed its doors in 1947.

Accreditation status in all veterinary schools is subject to periodic review by the AVMA. Tufts' status will be reviewed in late 1984.

Tufts VETERINARY NEWS

TUFTS UNIVERSITY SCHOOL OF VETERINARY MEDICINE SPRING 1984

The **Tufts Veterinary News** is a periodical progress report of the Tufts University School of Veterinary Medicine, distributed to key university personnel, veterinary students, veterinarians, and others with an interest in the development of the school.

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All letters, suggested articles, news items, and photographs are welcome and should be addressed to the Editor, Tufts University School of Veterinary Medicine, 203 Harrison Avenue, Boston, Massachusetts 02111, Telephone 617 956-7603.

...With Good Wishes From Our Friends

On behalf of the officers and members of the Massachusetts Veterinary Medical Association, I want to congratulate the administrators, faculty, staff, and students at Tufts University School of Veterinary Medicine for being granted full accreditation by the American Veterinary Medical Association. This extraordinary accomplishment of AVMA accreditation is truly a milestone in the current development of TUSVM.

The MVMA was pleased to receive the good news about the recent recognition of TUSVM and its commitment to excellence in veterinary medical education. The graduates of the charter class have certainly impressed local practitioners with their fine training and skills. Many of the recent graduates have already established a good record and function as a real credit to TUSVM.

The MVMA will proudly continue to support the professional activities at TUSVM and its goals to strengthen the veterinary services offered to the citizens of the Commonwealth. With every good wish to you and the faculty for continued success, I remain.

George P. Faddoul, DVM, MSc.
President,
Massachusetts Veterinary Medical Association

Veterinary Students Present Work at Student Research Day

Tufts veterinary students had an opportunity to present their personal research efforts to each other and future colleagues on the faculty at Tufts' first Student Research Day, on January 7, 1984.

The eight presentations reflected study areas of special interest to student representatives from all four veterinary classes. Included among the topics were studies involving disease conditions in cats, horses, cattle, baboons and seals. Presenters were: from the Class of 1984, Gail Hartman, from Belchertown, Mass., Sandra Pratt, from Wayland, Mass., and Rosalind Rolland, from Wilmot, N.H.; from the Class of 1985, Cecilia Helenski, from Kensington, Conn., and Mark Mason, from Millinocket, Me.; from the Class of 1986, Jeffrey Kaplan, from Manhasset, N.Y., and from the Class of 1987, Dr. Laura Remillard, from Framingham, Mass., and Lauren Tierney, from Santa Fe, N.M.

Peter Storandt, assistant dean for student affairs, who organized the event, explains that Tufts' admissions committee has always encouraged candidates with research interests to consider Tufts as an especially attractive site for earning their D.V.M. degree.

"Not surprisingly, then, when we announced a student research day, many excellent papers were submitted and we readily developed a very wide-ranging series of presentations," says Storandt. "What pleased us particularly was the solid professionalism of the presenters — their delivery, organization, and supporting documentation."

"It seemed clear," he continues, "that they had qualities that science requires for its advancement and that as graduate veterinarians they will bring excellence to their endeavors."

Dogs, Cats, Large Animals are Subject of Spring Continuing Education Conferences

Continuing its mission to offer educational opportunities to New England veterinarians, breeders and animal care professionals, Tufts' veterinary school is offering three continuing education conferences in the spring of 1984.

First on the schedule is the Annual Conference for Large Animal Practitioners, to be held Tuesday, March 20, at the school's Grafton campus. Veterinarians from Tufts' faculty and guest participant Joseph G. Merriam, D.V.M., M.S., a Massachusetts equine practitioner, will present a day-long program of talks on new diagnostic techniques, including bronchoscopy and nuclear medicine; techniques in wound management and skin grafting; breeding problems in horses; analysis of disease, and the use of new antibiotics in equine practice.

The fifth annual Canine Symposium and the second annual Feline Symposium will take place concurrently on Sunday, April 29 at Tufts' Medford campus. Topics to be covered are the care of new puppies and kittens; nutritional problems; abnormal immune systems, and the management of emergencies.

For more information about fees and schedules for all three programs, contact Janice Lennon at Tufts University School of Veterinary Medicine, 203 Harrison Avenue, Boston, MA 02111, (617) 956-7603.

Tufts' veterinary school was the recipient of a gift of autotutorial teaching materials from the Pitman-Moore Company. Here, sales representative Lori Offord (left) presents a check for the gift to the school's dean, Franklin M. Loew, D.V.M., Ph.D.

Tufts Chosen for $19 Million Livestock Project in Niger

The Tufts University School of Veterinary Medicine has been named one of the prime contractors for a five-year, $19.1 million project to establish a pioneering livestock herd management project in the West African country of Niger.

The project is one of the largest contracts of its kind ever awarded by the United States Agency for International Development.

Tufts will head a unique consortium of academic institutions working in collaboration with the government of Niger to develop more effective use of grazing lands and herd management techniques to improve livestock production in the predominantly rural, economically underdeveloped nation.

Dr. Franklin Loew, dean of the veterinary school, calls the Niger project "one of the most significant efforts in the history of the school. The awarding of this contract to Tufts recognizes the tremendous strides we have made since admitting our first class of students just five years ago."

The project, a joint undertaking of Tufts' School of Veterinary Medicine and Fletcher School of Law and Diplomacy, with assistance from the School of Medicine, also includes cooperative arrangements with New Mexico State University, Las Cruces, N.M., known for it range management programs, and North Carolina A&T State University, a predominantly black college located in Greensboro, N.C., with strong programs in rural sociology.

Tufts President Jean Mayer, who notes that the USAID contract recognizes the "increasing international scope of efforts which Tufts has undertaken during the past several years," calls the project "a bold venture with a unique interdisciplinary approach to solving agricultural and nutritional problems."

"We are not going to Niger simply to *study* the problem," Mayer said. "We are going there to work with the government and the people to help *solve* the problems of hunger and poverty."

Of the $19.1 million total project amount, USAID will provide $17.5 million in a project grant, of which $12.4 million is designated for Tufts and the other participating institutions and $5.1 million will go directly to the government of Niger for support of the project there. The Nigerien government will contribute $1.6 million of its own resources toward the project cost.

The awarding of the contract follows on the heels of the completion of an earlier USAID contract to Tufts and the other participating institutions to design a livestock management program which the new contract allows to be implemented.

Specifically, the three Tufts schools and the other two institutions will combine resources to study animal health problems and their social and economic ramifications, then provide comprehensive training in two areas. Herders will be trained, in the field, in literacy, veterinary medicine, public health and accounting, while government employees will receive high-level training in veterinary research, range management, ecology, animal nutrition and social sciences.

Nomadic herders of Niger in West Africa will be the focus of the project to be carried out principally by Tufts veterinary school and Fletcher School, with assistance from the medical school and two other smaller universities.

The program is designed to establish systems sensitive to the nomadic way of life which predominates in Niger to help herders in managing their main economic livelihood — the production of healthy cattle, sheep, goats and camels for subsistence and sale, — in the face of droughts and disease which periodically plague the country.

The ultimate objectives are to improve the herders' ability to be self sustaining in their way of life; to make best economic use of their range land; to involve them in already existing national extension systems operated by government agents, and to improve their efficiency in livestock production.

According to Wayne King, USAID's project development officer for Niger, "What makes the Tufts project unique is that it provides for a livestock and range management program which lends itself to a nomadic society. Herders' associations are telling Tufts what kind of help they need, unlike previous development projects, in which outsiders told the herders what they need."

Further, King explains, the three participating institutions will leave the herders with skills rather than expensive machinery which must be maintained. "These are simple and sustainable, rather than high-tech, interventions," he concludes.

Selected as the lead university for the project in an intense competition involving major land-grant universities, Tufts was seen as uniquely qualified to take on the project. Officials point to the broad spectrum of expertise Tufts has available through diverse academic programs in the schools under the university umbrella — particularly strong programs in veterinary medicine, nutrition and international development.

Tufts' veterinary school, under the supervision of training and technical coordinator Dr. Albert Sollod, associate professor of medicine, will provide expertise in programs of epidemiological research and the application of herd health programs in the herders' kinship cooperatives.

Says Sollod, "Herders are quite knowledgeable about common diseases that affect their herds. Their problems reflect their lack of modern supplies and their reliance on an unreliable resource, the edge of the desert. Veterinary services are one of the few economically realistic technical contributions that can be made to increase production efficiency without interfering with the herders' survival strategies."

The Fletcher School, through campus coordinator J. Dirck Stryker, associate professor of international economic relations, will provide expertise in the area of project organization and management, finance, livestock economics.

"Our concern from an economic point of view," Stryker says, "is that the programs established be economically viable and financially self sustaining." Explaining that one of the aims of the project is to develop herders' cooperatives which will provide a medical, economic and social infrastructure, Stryker says, "Tufts is offering an interdisciplinary approach which is people-oriented. There is no prototype for the Tufts program."

The deans of the Fletcher and veterinary schools, the two schools principally involved, both see the project as reinforcing strengths of their schools. "This will increase training opportunities for students to work in developing countries as well as add to Fletcher's long experience and expertise in projects to aid Third World development," says Fletcher Dean Theodore Eliot.

Adds Dr. Loew, "The School of Veterinary Medicine has, from its inception, been committed to applying modern veterinary medicine to appropriate problems — which is certainly the case in this project. We are proud to be participating in the gradual resolution of the world's number-one problems: hunger and poverty."

The Fletcher and veterinary schools will be assisted by the medical school in several ways. The school, under the direction of Dr. Morton Madoff, professor and chairman of the department of community health, will conduct a study measuring the nutritional status of family groups among the herders to determine the effects of the project's interventions on the health of the people involved. With the collaboration of Dr. Robert McGandy, professor of community health and nutrition, the school will also help develop a corps of herders who will be voluntary health aides providing minimum level health care among the families.

Tufts Lowers Fees At Grafton Hospital

Tufts' veterinary school has announced a reduction in selected fees charged at its Large Animal Hospital in Grafton, Mass.

The school, now fully enrolled, has reduced charges at rates up to 50 percent for physical examinations, radiographs and anesthesia for horses and farm animals admitted for care at the hospital.

In addition, the Large Animal Hospital is offering a 10 percent discount for veterinary services to members of the Massachusetts Thoroughbred Breeders' Association (MTBA). Members are asked to present their MTBA membership cards to the hospital's admitting secretary when they bring a horse to the hospital for veterinary care.

The Large Animal Hospital at Tufts, one of the country's most sophisticated facilities for the diagnosis and treatment of disease and injuries in large animals, was opened in 1982 as a clinical training institution for students of veterinary medicine at Tufts.

For more information on the Large Animal Hospital and the new fee schedule, contact Stanley B. Starr Jr., hospital administrator, at (617) 839-5302.

Equine Clinic at Large Animal Hospital Named for Cornelius Thibeault, D.V.M.

A Massachusetts veterinarian who has devoted more than a half-century of his life to the care of animals in the region was honored at dedication ceremonies for a wing of Tufts University School of Veterinary Medicine's Large Animal Hospital in Grafton, Mass., in December.

The hospital's Equine Clinic, an outpatient treatment suite for horses, has been named in honor of Cornelius Thibeault, D.V.M., a veterinarian who has maintained private veterinary practices with clientele in several North Shore of Boston towns. The clinic, which includes an examination and treatment area, a minor surgery and a special treatment room, is a part of the $12 million facility opened by Tufts in 1982 to provide comprehensive veterinary medical care to large animals in the region.

Speaking at the dedication ceremonies, Dr. Jean Mayer, president of Tufts University, called Dr. Thibeault "a model of professional competence," adding that he "embodies everything we would like our students to become as professionals, neighbors and friends."

Thibeault was profoundly influential in the development of a New England veterinary school at Tufts. Early on, he saw a need for such a school, and he devoted years of effort to rally grassroots support to bring about the development of Tufts' veterinary school.

Thibeault trained for his profession at Ontario Veterinary College and Ohio State University College of Veterinary Medicine, where he earned his degree in 1929. Following graduation, he established veterinary practices in Wollaston and Reading, and subsequently in Wakefield and Ipswich. Since then he has worked tirelessly for the health of animals throughout the region while simultaneously serving his profession, as president of the Massachusetts Veterinary Medical Association, the New England Veterinary Medical Association and the Boston Veterinary Association

Among the many awards he has received in recognition of his contributions to the veterinary profession, Dr. Thibeault was cited by the Massachusetts House of Representatives in 1954, was named Veterinarian of the Year by the New England Veterinary Medical Association in 1959, and most recently was awarded the Gaines Medal for dedication and good sportsmanship, in 1982.

Dr. Thibeault thanked the more than 200 people gathered to honor him and called his fellow veterinary professionals who participated in the early years of 20th century veterinary practice to "share in this tremendous tribute to me in the twilight of my life."

The dedication of the Cornelius C. Thibeault, D.V.M., Equine Clinic is made possible through a $250,000 pledge to the school of monies generated by EQUIFEST '83, a 10-day fundraising horse festival held in Hamilton, Ipswich and Topsfield, Mass., last June.

On stage with Thibeault were admirers including, from left to right, Massachusetts Racing Commissioner James Moseley, Tufts President Jean Mayer and veterinary dean Franklin M. Loew, D.V.M., Ph.D.

Tufts' Wildlife Clinic Ministers to Birds, Bears and Other Wild Species

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toothaches. With the help of Tufts veterinary students and Science Center staff, Sedgwick wedged the animal's half-ton inert body (which, according to participants, was about as manageable as a 900-pound bag of water) into a cage for removal to Stone Zoo. A crane from a local construction company successfully (and fairly quietly) lifted the caged animal into a waiting truck, which then sped off towards Boston. Ursa Minor, holed up in her cubbing den, remained peacefully oblivious to the activity in the outside den, and one of her cubs is still alive at this writing.

The case was successful in providing a clinical example of the lessons the wildlife medicine program is designed to teach to Tufts veterinary students: an understanding and respect for the habits of wild animals and the environmental conditions in which they survive; an understanding of the use of anesthesia ("the basis of all my work," says Sedgwick) in the treatment of wildlife, and hands-on practice of clinical skills required for their care and management.

The wildlife component of Tufts' environmental studies curriculum (which also includes studies in animal behavior, human-animal relationships, animal welfare, veterinary ethics and veterinary jurisprudence) came into being with Sedgwick's arrival at Tufts last spring. He is called upon to provide veterinary consultations to wildlife rehabilitators throughout New England. Among his many tasks as wildlife clinician, he makes regular visits to the Worcester Science Center, assists state rehabilitators in attempting to rebuild the state bald eagle population at Quabbin Reservoir, and he will serve as consultant to coastal rehabilitation stations serving marine animals in Maine.

But most of the patients Sedgwick and students work with at Tufts' wildlife Clinic are birds. The facility, set up to treat all indigenous species of New England wildlife, from opossums to white-tailed deer, has been designated by federal and state agencies as an official rehabilitation center for injured birds of prey from the region.

Both the Commonwealth of Massachusetts Division of Fisheries and Wildlife and the U.S. Fish and Wildlife Service have named the Wildlife Clinic as an official center for the care of sick birds of endangered species, including hawks, owls, and other birds of prey.

To support this endeavor, Tufts has also received a $25,000 grant from the Charles Ulrick and Josephine Bay Foundation to construct a special flight enclosure for bald eagles. This 20-foot by 40-foot, 16-foot high cage, to be constructed on the grounds in Grafton adjacent to the Wildlife Clinic, will make possible appropriate facilities for the care of larger birds of prey, especially bald and golden eagles.

A mountain lion at the Worcester Science Center awaits a housecall by Dr. Sedgwick of Tufts' wildlife clinic.

The official designation has set in motion a referral system whereby New England natural resources officials bring to Tufts injured birds of prey, found during the course of their work, for long-term care and rehabilitation.

Sedgwick, with the help of clinic coordinator Alison Haskell, is charged with the care of these animals and the training of Tufts veterinary students in the special techniques required for handling animals which, under optimum conditions, will return to the wild.

They work in a converted building equipped with surgery suites, inpatient canvas-covered cages and a kitchen for preparing nutritionally balanced meals for their patients.

"If you study the natural history of an animal, you'll have a pretty good idea how to treat it," says Sedgwick, whose priorities for rehabilitation fall into three categories: to repair injuries or treat disease in the animal; to restore its nutritional balance (because inevitably a sick or injured animal is also in poor health from not eating properly), and to prepare it to return to the wild.

The surgical repair of injuries, particularly in birds, requires careful, steady-handed work and gentle treatment of species unaccustomed to human handling. This fall, for instance, students under Sedgwick's supervision surgically replaced, feather by feather, the flight feathers on a kestrel's injured wing, thus restoring those feathers aerodynamically necessary for the bird to be able to fly on its own again.

Says Sedgwick, "The surgical technique we are using are ones that all veterinarians need to have to be good clinicians. We are simply providing experience in unique and difficult situations."

Teaching the use of anesthesia is more complicated, but of critical importance in the care of animals who are in pain or can not be handled for treatment, Sedgwick cautions, adding that "any primate over 15 pounds is more than you can handle."

Noting the impossibility of documenting the proper anesthesia dosage for every animal known to man, he explains that dosage can be arrived at through a mathematical formula that takes into account the weight of the animal and the ratio of oxygen is takes in to the amount of energy it produces. A standard slope can be developed from the formula to derive an appropriate anesthesia dosage in all animals, says Sedgwick, who notes that other variables such as the condition of the animal's heart and lungs still make each procedure a special case requiring careful monitoring.

In feeding, Sedgwick, Haskell and students observe the natural diet of an animal in the wild. Birds of prey, for instance, are fed their normal live prey. Sometimes, however, wild animals in confinement will not feed themselves, or they require the additional help of high fat nutritional supplements. For these cases, students learn to tube-feed the animals under circumstances, including hooding the animals'

Sedgwick (left) and Worcester Science Center staff member Michael Scofield examine a bush baby being treated for ringworm.

Veterinary student Holly Willard, v84, worked with Alison Haskell in an attempt to rehabilitate an injured Great Blue Heron so it could return to its life in the wild.

eyes, in which their natural fear of humans will be reduced enough for the restoration of a good diet.

But reducing the animals' fear, or "habituating" them, poses other obstacles to their rehabilitation.

"All wild animals have a natural flight distance — a distance they allow between themselves and potential predators before taking flight," Sedgwick explains. "Habituation denies that flight distance."

Sedgwick, Haskell and students work hard to avoid habituating animals in their care, and in the process of rehabilitation, take pains to maintain the animal's natural fear of humans.

A case in point is one of the Wildlife Clinic's most recent patients — a great blue heron infested with flat worms and brought to Tufts by the Worcester Science Center. The heron was fed a nutritious semi-liquid "slurry" until it was strong enough to feed itself fish and mice, and was kept outside in a cage camouflaged with tall grasses and equipped with a plastic Smurf pool for wading. As it grew stronger, Haskell and Sedgwick took it out to a field where it made test flights with leather jesses tied to its legs. When it was apparent it was strong enough to return to be wild, the heron was taken to wetlands near Grafton for its fateful return to its natural habitat. Nonetheless, despite Sedgwick's and Haskell's best efforts to keep the animal from becoming too accustomed to the presence of human activity, the heron didn't want to leave them. Ultimately, they took it to the enclosed marsh area at Benson's Animal Park, where they hope it will forget about humans and return to its natural lifestyle.

Wildlife rehabilitation is a tricky, time consuming, expensive business. Because wild animals, unlike pets or livestock, have no "owner" financially responsible for their care, many of the patients at Tufts' Wildlife Clinic are not paying customers. Wild animals with no financial sponsor may be accepted as clinic patients so that veterinary students can gain clinical experience. The Clinic hopes to find public support to extend this clinical service to any wild animal when there seems to be some hope that it can be returned to the wild. In addition, some permanently injured animals which could not otherwise survive in the wild are placed in public institutions where there is potential for excellent lifelong care, and where the animal will provide educational benefits to the people using the institution.

But Sedgwick hopes that after their training, Tufts veterinary students will enter their profession with both the necessary skills to treat the occasional members of a wildlife species seen in private practice, and with the philosophical mission to teach their own public a respect for and understanding of the natural environment and a compassion for animals in the wild.

Wildlife rehabilitation also has a discouraging rate at which it can release animals into the wild, because it is sometimes more humane to euthanize an injured animal which will never survive on its own than to try to rehabilitate it. According to Martha Pokras, director of special projects at the veterinary school, who, with her husband, Mark, v84, was formerly a full time wildlife rehabilitator, the best rehabilitators are only able to release to the wild about 35 to 50 percent of the animals they receive.

So what are the rewards? Why is wildlife medicine an important new part of Tufts' veterinary curriculum? The reasons are several, says Pokras, who helped design Tufts' wildlife program.

She sees the issues from ethical, ecological and scientific points of view. First, she explains that Tufts is interested in relieving the suffering of each individual animal. Further, "Ninety percent of all injured wildlife have, in one way or another, run afoul of human activity. We owe it to those animals to make compensation for that fact," she says.

Making note of a favorite saying among environmentalists that "extinct is forever," Pokras points out that endangered species are of particular concern, for ecological reasons. "Each member of an endangered species represents a significant fraction of the species' gene pool," she cautions. "Therefore, the health of each of those animals assumes a great importance."

She explains that animal populations are controlled by several natural limiting factors, including the availability of food, the weather predation, and disease. As human activities also affect animal populations, an understanding of natural limiting factors, especially disease, also becomes more important.

"The better we understand disease — the more sense we have of how it spreads and its seasonal variations — the better we can help manage populations," says Pokras.

Finally, she points to the scientific interest in wildlife. Wild species often provide indications, based on their place in the food chain, or their environmental requirements, of toxic substances in the environment which may ultimately affect human life. And an understanding of wildlife builds knowledge for knowledge's sake. Much can be learned from the study of a broad variety of animals, since the body of biological knowledge scientists now possess is derived from the study of a limited number of species.

"We wish the success rate among rehabilitators were better. We are striving to become more sophisticated in knowing when to euthanize an animal and when to rehabilitate it. But every time we *try* to rehabilitate an animal, we learn something," Pokras concludes.

Wildlife Clinic Coordinator Alison Haskell and Scofield give medical attention to a python.

Animal Welfare Issues Are a Focus of Curriculum at Tufts

Do animals have rights? Can they feel pain? What is the nature of human responsibility towards caring for and protecting the lives of animals? To what extent can humans protect animals in the wild from starvation and from predation by people? Should veterinarians be engaged in practices of euthanizing healthy animals, in castrating animals or performing cosmetic surgery, such as ear cropping or tail docking? Should animals be used in scientific research which may ultimately benefit human health?

The decade of the 1980s is a time when people are more and more concerned with the status of animals. The U.S. judicial system is awarding damages for the loss of pets in precedent setting lawsuits. Young couples are deferring child bearing and developing strong attachments to their pets instead. Scientists engaged in research are under increased pressure from the public and from the federal government to find alternatives to the use of animals for testing. Consequently, veterinarians today find themselves with a special responsibility to be conversant with issues of animals welfare.

Tufts' veterinary school, as guardian of the education of New England's future veterinarians, has taken a leadership role in presenting those issues for its students. Under the guidance of the school's dean, Franklin M. Loew, D.V.M., Ph.D., long a spokesman for humane issues in the research world, and Andrew Rowan, Ph.D., assistant dean for new programs at the veterinary school, Tufts is shaping a curriculum which will provide its students with an opportunity to focus on issues including the legal status of companion animals, the use of animals in research, and social questions regarding animal control, predator control and hunting.

Says Dr. Loew, "Issues related to animal welfare are among the most important in the world of animals and will be for the forseeable future. These include issues studied at Tufts such as the use of animals versus cell systems in research, appropriate approaches to wildlife rehabilitation and the society's responsibility to and for free-roaming dogs and cats. At Tufts we are addressing these issues to prepare both veterinary students and faculty for the changing attitudes in American society."

Studies of issues of animal welfare at Tufts' veterinary school are organized under the aegis of its new Department of Environmental Studies, chaired by Dr. Loew. The department offers courses in veterinary jurisprudence, taught by Jerrold Tannenbaum, J.D., assistant professor, animal behavior and the human-animal bond, taught by Elizabeth Lawrence, V.M.D., Ph.D., assistant professor, and wildlife medicine, taught by Charles Sedgwick, D.V.M., associate professor.

A course on veterinary ethics is in the planning stages, according to Rowan, who says that unlike the study of medical ethics, there is presently little analysis and debate on philosophical and moral issues related to a veterinarian's ethical responsibilities in practice. Meanwhile, Rowan and Tannenbaum will give six informal lectures to the veterinary community this year during the school's weekly "Dean's Hour" lecture series, on questions of veterinary ethics. Faculty seminars, held monthly, are also looking at animal welfare issues.

Included in the school's effort to address issues of animal welfare is a mission also to educate a larger public. To that end, Tufts this fall sponsored its first New England Conference on Animals and Society, a two-day event at Tufts' Medford campus in November attended by more than 125 animal professionals from humane organizations, wildlife rehabilitation centers, zoological societies, hearing ear and seeing eye dog programs, and veterinary practices. Tufts was also co-sponsor, with the organization Public Responsibility in Medicine and Research (PRIM&R), of a conference on Standards for Research with Animals: Current Issues and Proposed Legislation, in October. Other conferences are planned.

Further, the veterinary school has established the Tufts Center for Animals, staffed by faculty involved in the study of animal welfare issues. Veterinary ethics and issues of animal control will be among the subjects for research at the center.

Rowan explains, "Issues of the status of animals in society and how you treat them have been avoided in the past by veterinary schools, because it is often perceived that there is no scope for a scholarly approach to problems raised by our ambivalent attitudes towards animals."

"The center will address issues we can approach from a scholarly point of view," Rowan continues. Animal control is one of those issues, and to address it, Rowan and associates will endeavor to establish statistics regarding animal populations and demographics in New England. They hope to identify where free-roaming cats and dogs are most often found, who, if anyone, owns those animals, and why there are overpopulations of animals, in order to determine the best method for controlling them.

"Most veterinary schools are looking at ethical questions," Rowan adds, "but Tufts is unique in focusing on social issues of animal welfare, and the extent to which it is devoting personnel to develop a fully supported program."

BREAKING THE SOUND BARRIER — Katish (left), a hearing-ear dog trained, along with the other dogs shown, at Red Acre Hearing Dog Center in Stow, Mass., provided some training to Tufts students recently. A guest of the Tufts student chapter of the American Veterinary Medical Association (SCAVMA), Katish demonstrated skills in aiding deaf owners by responding to sounds. The Bird family, which operates Red Acre Farm and the Merwin Memorial Free Clinic for Animals, Inc., also makes annual scholarship donations to Tufts' veterinary students through the Harriet G. Bird Memorial Scholarships.

Sackler Center for Health Communications To House Libraries, Information Network

Groundbreaking ceremonies Nov. 18 marked the beginning of construction for Tufts' new $22 million Arthur M. Sackler Center for Health Communications on its health sciences campus in Boston. The building, which will house library facilities for Tufts' veterinary, medical and dental schools, will be the nexus of a computerized health information network, which will enhance information access and exchange within the university, the region and the nation.

The ceremony's turnout and list of dignitaries underscored widespread interest in the construction of the Sackler Center. Among those speaking at the ceremony were Margaret Heckler, U.S. secretary of health and human services; Dr. Arthur M. Sackler of New York, a pioneer in the field of neuropsychoendocrinology for whom the new building is named, and Tufts President Jean Mayer. Other attending dignitaries included internationally known scientists Linus Pauling, recipient of two Nobel prizes, and Roger Williams, nutritionist and discoverer of two B-complex vitamins.

Praising Sackler, who first began proposing the center 20 years ago, Heckler pointed out in her speech that "be they in research, academics, or the practice, today's health professionals need selective access to the explosion of biomedical information" that has occurred over the past several decades.

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Groundbreaking for Tufts' new Arthur M. Sackler Center for Health Communications was a cause for celebration for all of Tufts' health sciences schools. Here, lending some muscle to the effort at groundbreaking ceremonies November 18 are, from left to right, Arthur M. Sackler, who provided a gift to help fund construction, federal Health and Human Services Secretary Margaret M. Heckler, Tufts President Jean Mayer, veterinary dean Franklin M. Loew, D.V.M., Ph.D., Eli Dow, president of the Medical Alumni Association and scientist Linus Pauling.

Student-Run Fund At Veterinary School Awards Seniors $1,584

Students helping students is the idea behind a newly-established financial aid fund at Tufts' veterinary school. Through the fund, the Student Tuition Assistance Trust (STAT), members of the veterinary school's 4th year class recently received scholarship aid totalling $1,584.

"What is unusual about this scholarship fund," says George Kramer, v86, one of the organizers of the fund, "is that it is organized and administered by the veterinary students. The trust fund was started to allow the students a more active role in trying to keep down the high cost of their education."

STAT will award scholarships annually to veterinary school 4th year students and hopes to increase the amount of aid over this

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Please Join Our "Dollar A Dog" Campaign!

Because Tufts University School of Veterinary Medicine is a private institution, it must rely on animal-loving New Englanders for much of its support. Every gift helps, and small contributions really do add up. For example, if the school were to receive one dollar for every dog in New England, more than $2 million would be available to meet its annual needs of over $10 million. Likewise, there are approximately two million cats and 250,000 horses in New England.

We're asking animal owners to give their support for New England's only veterinary school by donating one dollar annually for each of their animals, to provide the broad-based public support required to maintain this important animal health resource.

Your contribution is tax-deductible, and may be designated for scholarship, teaching, research or equipment. Please use the form below if you would like to help.

Enclosed please find $_____ as my contribution to Tufts University School of Veterinary Medicine.
I would like this gift to be used for:
_____Student Scholarship _____Animal Disease Research _____General operating expenses
_____Teaching _____Equipment
My animal interest is:
_____Cats _____Dogs _____Horses _____Other:_____

Name _____
Address _____
_____

Please make checks payable to *Trustees of Tufts College (Veterinary School)* and send with this form to:
Tufts University School of Veterinary Medicine
193 Harrison Avenue, 3rd. Floor
Boston, MA 02111

Faculty Members Make Presentations at AAHA Regional Meeting

More than 110 veterinarians attending the recent Northeast regional meeting of the American Animal Hospital Association (AAHA) at Stratton Mountain, Vt., bore witness to the fact that Tufts' veterinary school is becoming an increasingly important resource for the continuing education of the region's veterinarians.

Four members of Tufts' faculty were invited to give presentations in the scientific portion of that meeting, including Franklin M. Loew, D.V.M., Ph.D., dean, who reviewed the school's progress; James Ross, D.V.M., Ph.D., professor and chairman of the Department of Medicine, who addressed the session on therapy of cardiomyopathies in animals; Linda Ross, D.V.M., M.S., who talked about medical management of chronic renal failure, and Gregory Ogilvie, D.V.M., who discussed the management of hyperthyroidism in the cat.

A total of 18 presentations were made during the three-day conference. Presenters included private practitioners and faculty from the University of Connecticut, Johns Hopkins University School of Medicine, New York State College of Veterinary Medicine at Cornell University, University of North Carolina and Harvard School of Public Health. Tufts had the largest representation among those institutions.

AAHA is an association of animal hospitals and small animal practitioners which sets standards of practice for member hospitals, conducts studies and surveys on behalf of its members, and presents educational conferences for veterinarians throughout the U.S.

Schwartz, Looby Named to New Administrative Posts

Two new administrative appointments in the School of Veterinary Medicine have been announced by Dean Franklin M. Loew.

Dr. Anthony Schwartz, chairman of the department of surgery, will assume the further administrative position of associate dean. In this capacity he will work closely with Dean Loew in the continuing relationship with the Angell Memorial Animal Hospital and the entire small animal program.

Dr. George Looby, assistant professor of medicine, has been named director of the Large Animal Hospital at Grafton, and will help coordinate all Grafton campus programs. Dr. Looby succeeds Dr. Gustav E. Fackelman in that position, who has returned to full time teaching, clinical service and research after three years as large animal hospital director and associate dean.

Student Fund

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initial effort. Toward this end, STAT has a number of fund-raising efforts in the works, including the second annual STAT Auction, slated for early May, when merchandise and services donated by individuals and businesses will be auctioned off in Posner Hall.

Anyone who wishes to contribute merchandise for the auction or to make a contribution to the fund can contact STAT at the veterinary school's student affairs office, 203 Harrison Ave., on the Boston campus. The phone number is 956-7600.

Sackler Center Opens

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She noted that officials of the Library of Medicine at the National Institutes of Health (N.I.H.) in Washington, D.C., believe that the proposed Sackler Center will be the "most state-of-the-art biomedical information facility in the world" upon completion.

Expected to be completed by 1985, the 135,000-square-foot facility has been in the planning process since 1977, when preliminary plans for the building were developed. Two years ago Congress appropriated $15 million to begin construction of the facility. Contributions from the private sector are now being sought to meet the balance of construction costs, as well as the cost of equipping the building and establishing an operating endowment.

Faculty News

• **Roderick Bronson,** D.V.M., associate professor of pathology, and **Robert Gilfillan,** Ph.D., assistant professor of pathology, attended the U.S.D.A. Hybridoma Technology Conference, Nov. 30 to Dec. 2, in College Park, Md. The conference covered topics including the development of animal vaccines and diagnostics, identification of cell surface antigens, control of the immune response, and new developments in technology and methodology.

• **Leslie Bullock,** D.V.M., professor of medicine, is the recipient of a $22,000 grant from the Mark Morris Foundation for the study and treatment of mammary tumors in cats and dogs. Bullock, who will speak before the International Symposium on Androgen Action in Bethesda, Md., in June, has also been appointed to the public affairs committee of the Endocrine Society, where she will represent the society on animal welfare issues.

• **Margaret Cook,** wife of Robert Cook, F.R.C.V.S., Ph.D., professor of surgery, and **Shirley Sedgwick,** wife of Charles Sedgwick, D.V.M., associate professor of environmental studies, have been elected to the auxiliary committee of the Massachusetts Veterinary Medical Association. The Massachusetts auxiliary will host the 50th anniversary meeting of the New England Veterinary Medical Association in Rhode Island in October 1984.

• **Susan Cotter,** D.V.M., associate professor of medicine, is the recipient of $16,700 grant from the Mark Morris Foundation for the treatment of persistent feline leukemia virus infection with monoclonal antibodies.

• **Larry Engelking,** Ph.D., assistant professor of medicine, is the recipient of a $4,421 grant from the National Institutes of Health to develop a rapid field assay for determining Vitamin A deficiency in cattle.

• **Elizabeth Lawrence,** V.M.D., Ph.D., assistant professor of environmental studies, has been appointed to the board of consultants for the Delta Society, for the study of the human-animals bond. Lawrence, also an anthropologist, was invited speaker at the XXII World Veterinary Congress in Perth, Western Australia in August 1983, where she stressed the relevance to veterinary medicine of understanding cross-cultural views of animals in a presentation titled "The Horse in Crow Indian Society."

• **Franklin M. Loew,** D.V.M., Ph.D. dean, has been invited to deliver the New Brunswick Lecture at the 1984 Annual Meet-

ing of the American Society for Microbiology in St. Louis, Mo., in March. Loew will also be banquet speaker at the annual meeting of the American Society for Pharmacology and Experimental Therapeutics in St. Louis in April.

• **Jeanne Lofstedt,** B.V.Sc., assistant professor of medicine, presented papers recently on baby pig diseases at the New England Area Conference for Federal Veterinarians and Animal Health Technicians in Auburn, Mass., in December, and on practical anesthesia and wasting diseases, both in sheep and goats, at the Iowa Veterinary Medical Association in Des Moines, in January.

Cotter

Lofstedt

• **Leonard C. Marcus,** M.D., V.M.D., associate professor of comparative medicine, gave a series of lectures to the Society of Aquatic Veterinary Medicine in Grand Cayman Island in February. Topics included public health problems for travelers to the tropics, zoonoses and parasitic diseases in the Caribbean, and diseases of reptiles, including sea turtles, which are raised in hatcheries on the island.

• **William M. Moulton,** D.V.M., adjunct professor of medicine, participated in the Expert Consultation on Emergency Disease Control held by the Food and Agriculture Organization of the United Nations (FAO). The committee's aim was to identify laboratories which would serve as international reference centers to carry out diagnosis and training for diseases that threaten national livestock industries.

• **Gregory Ogilvie,** D.V.M., resident in medicine, spoke to the American Animal Hospital Association Northeast Region meeting in Stratton Mountain, Vt., in February on the management of hyperthyroidism in the cat.

• **James Ross,** D.V.M., Ph.D., professor and chairman of the Department of Medicine, is the recipient of several grants, including $4,388 from Kontron, Inc., for the study of "Thrombus Accumulation of Implanted Catheter-Sheath in the Aorta of Sheep," and $20,674 from Merck, Sharp and Dohme for the study of Ivermectin in heartworm prevention. **Mark Kopit,** D.V.M., resident in medicine, will join him as co-investigator in the Merck grant. Ross, who will address the American College of Veterinary Internal Medicine Forum in Washington, D.C., in May, is also co-investigator in a grant from the National Institutes of Health, for research and development of "Percutaneous Energy Transmission Systems (PETS)". **Benedict D.T. Daly,** M.D. adjunct associate professor of medicine, is principal investigator, and **Kurt Dasse,** Ph.D., adjunct assistant professor of medicine, is co-investigator, in this grant, which involves research using pigs as animal models.

• **Linda Ross,** D.V.M., M.S., has made several presentations on renal disease in small animals recently, at meetings of the Vermont Veterinary Medical Association, the American Animal Hospital Association Northeast Region meetings, both in Hyannis, Mass., and at Stratton Mountain, Vt., the North Shore Veterinary Medical Association and the Merrimack Valley Lhasa Apso Club.

• **Andrew Rowan,** Ph.D., assistant dean for new programs, is the author of the book *Of Mice, Models and Men: A Critical Evaluation of Animal Research,* published by the State University of New York Press in February 1984. The book presents a history of the debate over animal research and analyzes the motivating forces on both sides of the debate.

• **Moselio Schaechter,** Ph.D., professor and chairman of the Department of Molecular Biology and Microbiology was recently elected to the office of president-elect of the American Society of Microbiology (ASM). Headquartered in Washington, D.C., the ASM has 31,000 members and is the largest single biological organization in the world. Its members include microbiologists in universities, hospitals, government laboratories and industry, and it publishes 8 major journals each year. Dr.Schaechter will serve as president-elect in 1984 and as president in 1985.

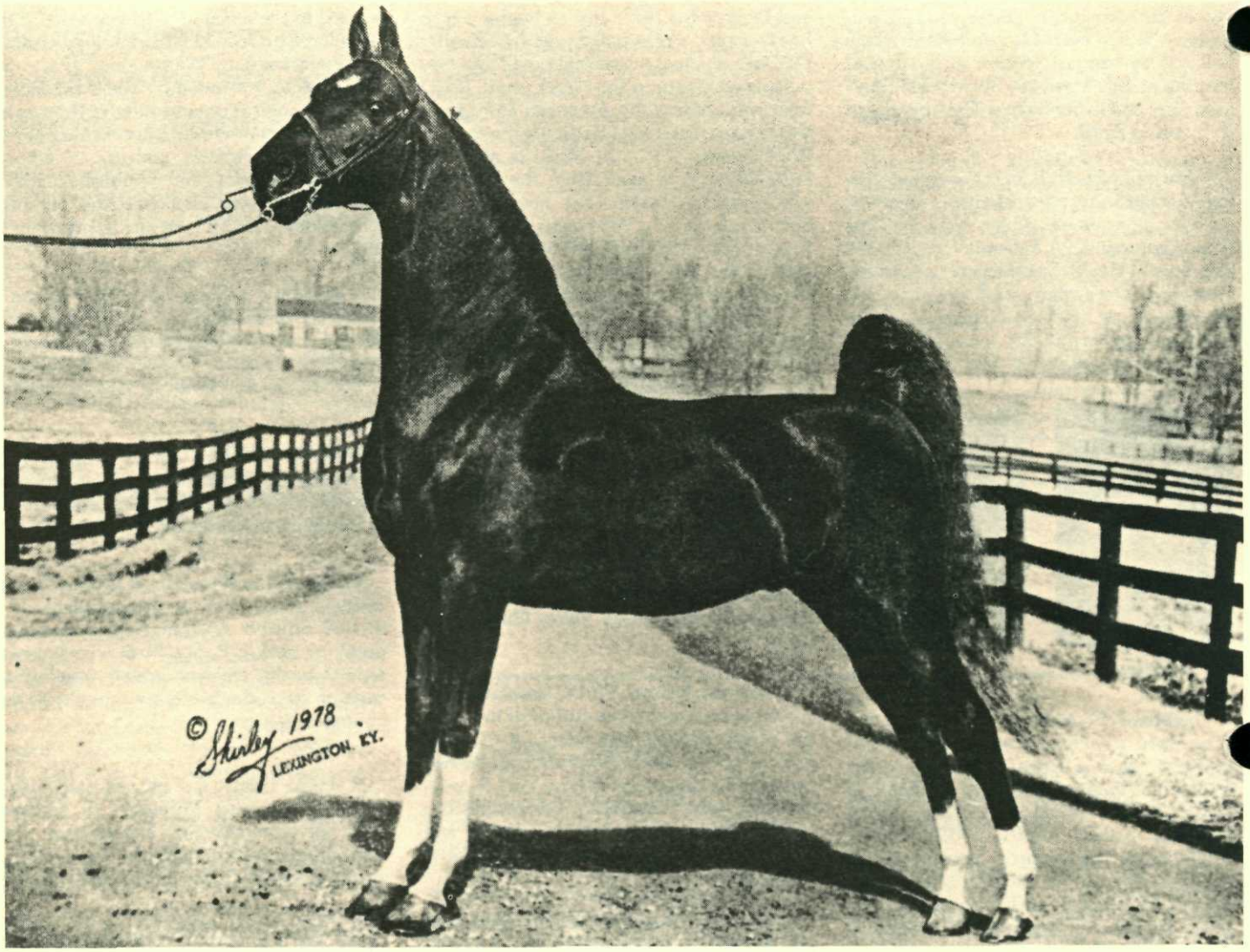
• **Kenneth Schunk,** D.V.M., assistant professor of medicine, is the recipient of a $5,000 grant from the National Institutes of Health to study the English Spring Spaniel as "A Model for Infantile GM1-gangliosidosis."

• **Edith Schwartz,** Ph.D., professor of physiology, participated in a conference on the effect of Vitamin C on domestic animals in Denmark in September.

• **Howard Seeherman,** V.M.D., Ph.D., resident in surgery, is the recipient of a $2,000 Squibb Animal Health Resident grant for 1984. E.R. Squibb & Sons presents animal health resident grants annually at each of the U.S. veterinary schools, to encourage research.

• **Roger Spidle,** C.P.A., assistant dean, finance, has been promoted to assistant dean for administration and finance, with expanded responsibilities, following a university-wide review of financial officers.

• **Paula Tata,** secretary in the dean's office, left her post at Tufts in February to return to school for further studies.



American Saddle Horse stallion Wing Tip, son of the legendary Saddlebred stallion Wing Commander, is standing at stud for the 1984 breeding season at Tufts' Large Animal Hospital in Grafton, Mass. Wing Tip, a gift to the school from Anthony Autorino, is part of a program to provide Tufts' veterinary students with clinical skills in managing equine breeding programs.

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