The New York State College of Veterinary Medicine at Cornell University Vol. 4, No. 4, 1985

Veterinary Viewpoints

PICK SIX WAGERING ON RACES 3 THROUGH 8
EXACTA WAGERING ON THIS RACE

1⅛ MILES START & FINISH

	WIN	PLACE	SHOW	No.

PURSE $40,000

SEVENTH RACE

ONE MILE AND A FURLONG
CORNELL COLLEGE OF VETERINARY MEDICINE

FOR FILLIES AND MARES THREE YEARS OLD AND UPWARD WHICH HAVE NOT WON TWO RACES OF $16,500 AT A MILE OR OVER SINCE JANUARY 1. Three-year-olds, 119 lbs.; older, 122 lbs. Non-winners of two races of $15,000 at a mile or over since August 1 allowed 3 lbs.; of such a race since then, 5 lbs.; of such a race of $16,500 since September 15, 7 lbs. (Maiden, Claiming, Starter and State-Bred races not considered.)

TRACK RECORD—1:47; RIVA RIDGE (4), 130 lbs.; October 15, 1973.

MAKE SELECTION BY NUMBER

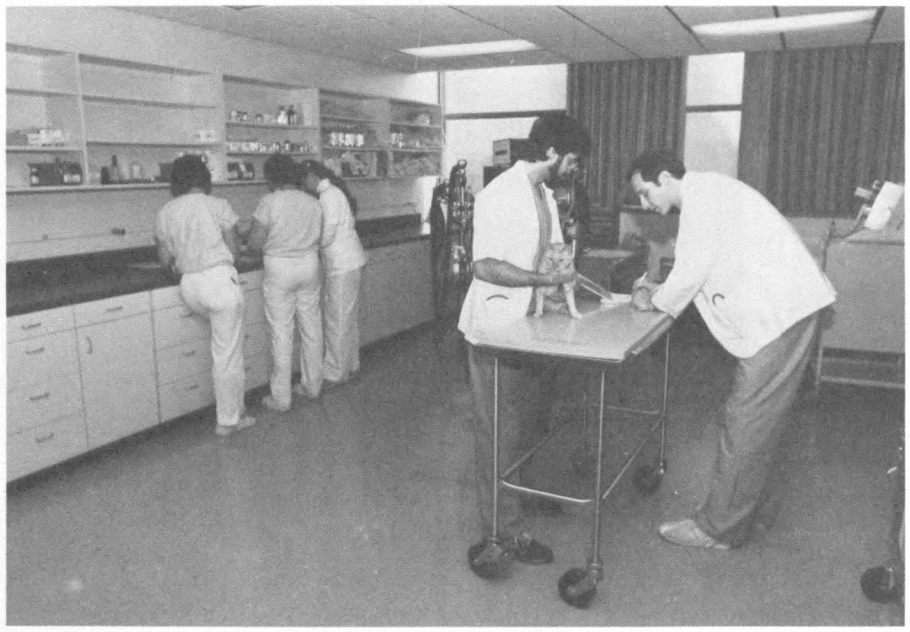
M-Line	Owner	Trainer	Jockey	Starts or Works
1	JOHN P. TERRANOVA Red, White Star, White Circle on Sleeves, Red and White Cap	D. A. IMPERIO	ROBERT THIBEAU, JR.	1985 12 1 2 0 $71,734 13 Oct 85 Bel
15-1	**HARE BRAIN** B.m.5, Naskra—Milina by Nijinsky 2nd	115	Alw 40000, 1 1 16 L.Sts. 8 26 6 13 5 8	
2	CHASRIGG STABLE Black, Light Blue Yoke, Blue Hoop on Sleeves, Black Cap, Blue Pompon	R.DeBONIS	NOEL WYNTER	1985 19 4 4 2 $64,520 12 Oct 85 Bel
6-1	**A HOT NUMBER** Ch.f.3, Spellcaster—Princess Rain by Rainy Lake	**105	Clm 45000, 6f L.Sts. 1nk 5 12 7 32	
3	ALBERT FRIED, JR. Scarlet, Gold Ball with Scarlet Lazy "F" Scarlet and Gold Halved Sleeves, Scarlet Cap, Gold "F"	R. T. DeSTASIO	DONALD MAC BETH	1985 12 2 0 0 $27,525 18 Oct 85 Med
12-1	**JENNIFER'S CHOICE** Ch.f.4, Gallant Romeo—Ethel's Choice by Ocala Breeze	115	Alw 25000, 1m 70Yds L.Sts. 6 24 7 17 6 13	
4	PHILIPPE SANGNIER Beige, Two Black Hoops, Black Cap	G. COLLET	JEAN CRUGUET	1985 20 2 2 3 $65,331 20 Oct 85 WO
5-1	**NEW BRUCE (Ire.)** B.f.3, Vitiges—New One by Tyrone	116	E P Taylor, 1 L.Sts. 6 9 T 5 T5 T	
5	THEODORE M. SABARESE Black, Royal Blue Dots, Blue Sleeves, Blue and Black Cap	J. PARISELLA	ANGEL CORDERO, JR.	1985 6 2 2 0 $62,360 18 Oct 85 Bel
EVEN	**ROBIN'S ROB** B.f.4, Ramirez—Janine D. by Swaps Point	119	Alw 40000, 1 1 16 L.Sts. 1hd 1 6 4 8	
6	ANTHONY DRAKAS Light Blue, Royal Blue Ball with Light Blue "D," Royal Blue Chevrons on Sleeves, Light Blue Cap	J. J. LENZINI, JR.	JACINTO VASQUEZ	1985 11 3 1 1 $58,786 13 Oct 85 Bel
5-2	**FIND HAPPINESS** B.f.3, Buckfinder—Very Very Happy by Dancing Count	116	Alw 40000, 1 1 16 L.Sts. 1 2 5 9 1 2	

CORNELL'S DAY AT AQUEDUCT - OCTOBER 30, 1985

It started with a poster and video session in the morning, followed by lunch and capped off with a win by (appropriately) "Find Happiness" in the first Cornell College of Veterinary Medicine Purse. Dean Robert Phemister awarded the trophy. Our thanks go to the wonderful people at Aqueduct, including Mr. Lenny Hale, Ms. Loretta Burke, and Ms. Marge Fearon, to our faculty who made the trip, and to the many old and new friends who were there to share the day's events and wish us well.

Photos: Biomedical Communications

RENOVATIONS BLEND OLD WITH NEW



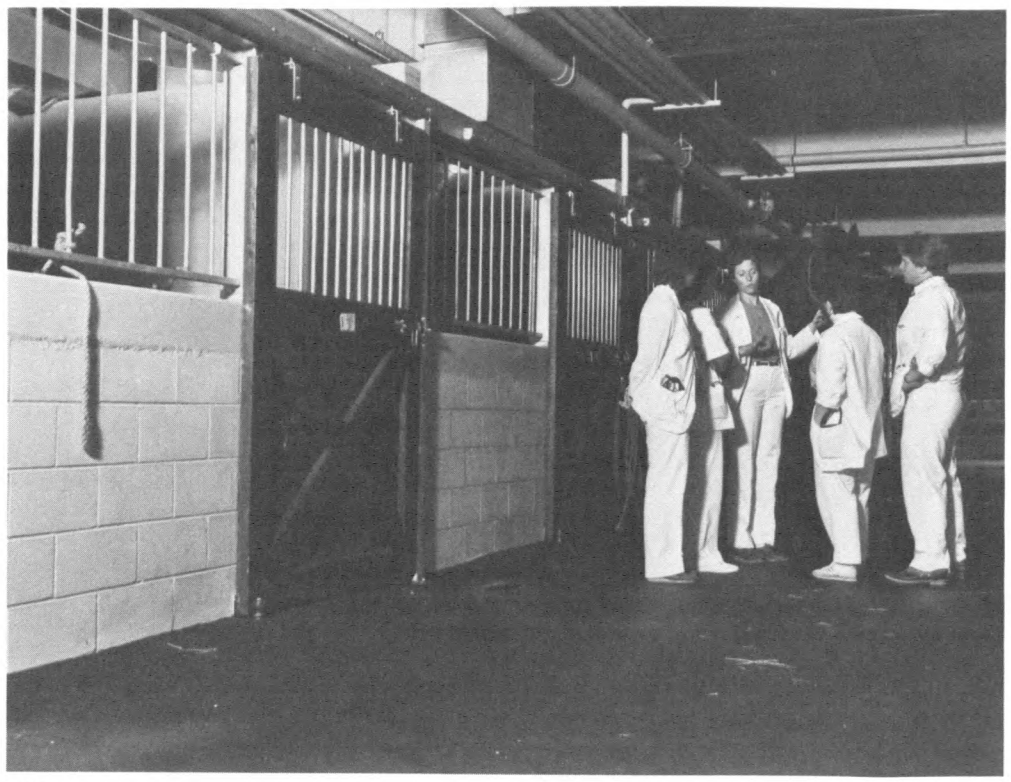
Anesthesia Induction & Recovery Room

Treatment Room

THE MASONRY DUST has just about settled in the Small Animal Clinic. The move of Medical Records to more spacious quarters left a sizeable area free next to the intensive care unit suitable for a new anesthesia induction/ recovery room (AIRR). Construction revamped flooring, added storage cabinets, and installed a bank of portable stainless steel recovery units. An open floor plan leaves plenty of maneuvering room for transport carts and a central induction station, complete with lines for nitrous oxide, halothane, oxygen, electricity and a scavenging system that collects anesthetic waste gases. With the completion of the room, patients are now inducted in this area and taken directly across the hall to surgery. They return post-operatively for observation and recovery.

In the Large Animal Clinic, the water lines were barely hooked up before the new K barn facilities were in use. A second treatment room was carved out of aisle space next to K Barn and it comes complete with stocks and its own separate entrance. It will be used for the treatment of in-house patients when the large treatment room is in use. Directly behind the treatment room a wash stall was built that's big enough to accommodate even the largest draft horse. Finishing up the renovations in K Barn, two new box stalls were added to the existing four box stalls and one side of the finger barn has been fitted with twelve specially-sized stalls for small ruminants. Down the breezeway in M Barn, a total rejuvenation job has been completed and thirteen new box stalls already house patients.

Renovations in both the Large and Small Animal Clinics were initiated in response to an increased patient load, contemporary patient care requirements, and a need to renew facilities that are, in some instances, nearly 30 years old. They represent essential, short-term solutions to pressing space problems pending a formal consideration of a facilities master plan developed for the college.



M Barn

Veterinary Viewpoints

Veterinary Viewpoints is published four times a year for friends and alumni of the New York State College of Veterinary Medicine, a Statutory College of the State University of New York. Correspondence may be addressed to Karen Redmond, Editor, Schurman Hall, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853. Telephone: 607/256-7699.

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Photos: Biomedical Communications

Photo: Biomedical Communications

VETERINARY CIRCLE WELCOMES ANN PHEMISTER

— By Ann Marcham

On a fine autumn Sunday, about seventy-five members of the College's Veterinary Circle welcomed Ann Phemister, the wife of our new Dean, at a reception in the Hagan Room. The beautifully decorated table, replete with silver tea services and plentiful canapes, underscored the sense of community within the College.

Ann is not new to the Cornell community. Twenty-five years ago, the Phemisters were married in Annabel Taylor Hall on the day after Bob received his DVM degree.

Now, with three grown children, Katie, David and Susan, Ann Phemister brings to Cornell an enthusiasm for university life and veterinary medicine. In the past seven years, she has served as an officer in the Colorado Veterinary Medical Association Auxiliary and has just completed a term as its president. She has also been very active in the Veterinary Biomedical Auxiliary, the equivalent of the Veterinary Circle.

Other personal interests are reflected in her participation in the Colorado State University Women's Association where she joined in activities that involved needlepoint, gardening and gourmet cooking.

The Phemisters' children tease them about their version of relaxation. The parents have been known to eagerly look forward to a day of chopping firewood on their camping grounds in the mountains of Colorado. However, they do relax and their home reflects a love of books, music and a long standing affection for Andrew Wyeth paintings.

SUMMER EMPLOYMENT PROGRAM

THE NEW YORK STATE College of Veterinary Medicine will offer an 8-week Apprentice Program for racial minority high school students and a 10-week employment opportunity for minority college students during the summer of 1986. Apprentices are selected on a competitive basis and are offered paid experience in research facilities. Dormitory accommodations are available. Any high school student enrolled for the 1985-86 academic year and college students who have already completed some of the entrance requirement courses may request information and an application packet from **Dr. Donald S. Postle, 101 James Law Auditorium, NYSCVM, Cornell University, Ithaca NY 14853.** Application deadline is March 3, 1986.

The programs were begun to offer veterinary-related experiences to college students that might enhance acceptance into the professional curriculum and to influence college and career choices among high school students who might consider entering one of the health professions.

ROBERT BROWN, NEW DIRECTOR OF CALIFORNIA INSTITUTE

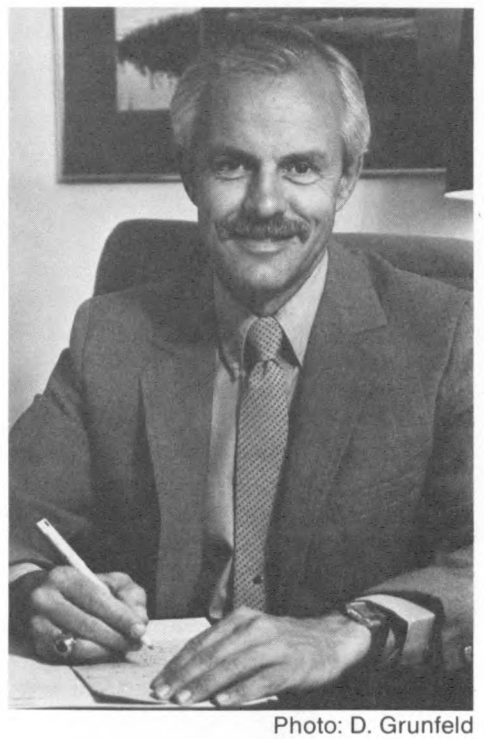


Photo: D. Grunfeld

After ten years as Assistant Dean of Administration at the New York State College of Veterinary Medicine, Mr. Robert B. Brown has left this position to assume new duties as Director, Administration, at the University of Southern California Information Services Institute located in Marina del Ray, California. Although he leaves to begin a demanding new association, it is with reluctance. In his own words, he "leaves behind friends and colleagues who have welcomed me as part of the veterinary profession and with whom I have worked to direct, change and strengthen one of the finest veterinary institutions in the country."

Mr. Brown's move comes at a time when several of the long-term projects he was so closely involved with are coming to fruition, including the reorganization of the teaching hospitals and the funding and planning of the new clinical facilities. During his years as Assistant Dean, he also saw the construction of a new multi-story research tower, the beginning of renovations in the clinics, and the formation of a new academic curriculum.

As Assistant Dean, he was responsible for the management of the entire fiscal and administrative support systems and the allocation and utilization of public and private funds. He designed a long-range plan for enhanced fiscal operations and facilities improvement and also directed the design and implementation of a computer-based budgeting and accounting system which resulted in timely and comprehensive reporting of data. In addition, Mr. Brown introduced extensive new policies and procedures to upgrade, streamline and consolidate administrative functions which included integration of computer-based administrative systems, enhanced operation of support services, refined materials management and more efficient use of space.

Under his direction, personnel strength increased from slightly over 400 to over 900, with concomitant increases in facilities and other resources. He directed a major restructuring of the administration of the college and oversaw an enhanced minority recruiting, acceptance and retention plan which resulted in a favorable increase of minority students and employees and a nearly 100% retention rate.

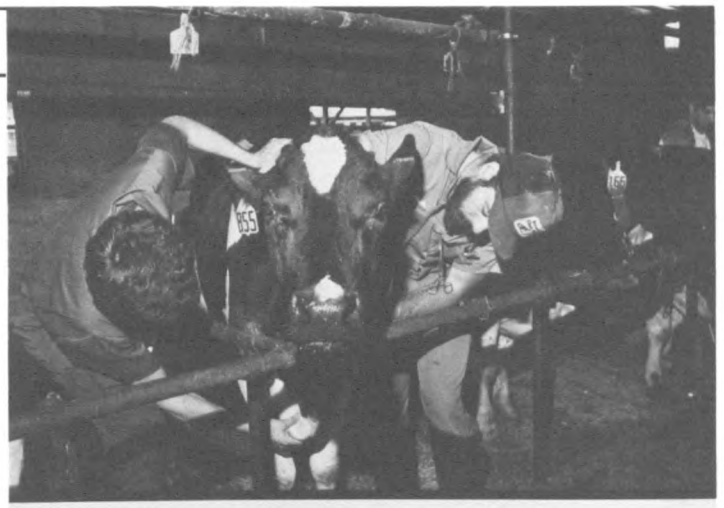
Bob Brown is a 1964 graduate of West Virginia University with an M.S. in Industrial Relations from Purdue University's Krannert School. He served in the United State Army from 1964 until 1975, receiving an honorable discharge as a Major. While in the service, he performed duties as ceremonial and social aide to the President of the United States and his family which involved hosting and assisting heads-of-state, governmental leaders, and a wide variety of guests at the White House. He joined the staff of the New York State College of Veterinary Medicine in 1975 as Director of Student Affairs and Admissions, Director of Administrative Operations and Assistant Dean for Administration. In 1981 he attended the Institute of Educational Management at the Harvard University Business School and Graduate School of Education.

MAY PIAN-SMITH EARNS CORNELL 1985 AWARD OF EXCELLENCE

MAY PIAN-SMITH, graduate student in the New York State College of Veterinary Medicine's department of pharmacology, is the recipient of the **1985 Award of Excellence** from Cornell's chapter of the national organization, Graduate Women in Science. To compete for the award, graduate students submit an abstract of their work along with recommendations. Finalists are chosen on the basis of the significance of their research and take part in an oral competition featuring a ten minute presentation.

Pian-Smith's winning presentation described her work on insulin release and the rise of calcium in the cell that stimulates insulin release. There is evidence that, in some forms of diabetes, insulin is not secreted because cells lack the ability to release calcium from storage organelles inside the cell. In May Pian-Smith's pharmacological study of this problem, this defect was created artificially with drugs known to block calcium release from the organelles into the rest of the cell. By studying the failure of calcium release, it is possible to better understand what is needed for normal insulin release.

A 1981 Harvard graduate in Biology, May Pian-Smith received her master's degree from Cornell in the field of veterinary medicine, department of pharmacology, and is now working on her Ph.D. She plans to attend medical school next fall. May Pian- Smith's husband, Dr. Frank Smith, is a second year resident in the small animal clinic of the New York State College of Veterinary Medicine.



RIDING WITH AMBULATORY

HISTORY* SHOWS that by 1900 a fledgling Ambulatory Clinic at the New York State College of Veterinary Medicine under the guidance of Dr. Walter L. Williams had exceeded 800 patients annually. The records add that stock owners were taking advantage of the service and calls were made as far away as Mecklenburg and Jacksonville. Eighty-five years later, ambulatory clinicians at the College still make calls, but now over a seven county area. Staff size has grown too, with ten clinicians, including one resident and two interns. On the average, they treat over 43,000 cases annually and their patients are mostly cattle, followed in number by horses, then sheep, goats, and pigs.

As soon as the Ambulatory desk opens at 7:30 a.m., clients are on the phone to Wendy Brashear who coordinates calls and messages for the clinic. Until 9:00 a.m. when the mobile trucks begin their rounds, she takes phone call requests for a veterinarian's visit, noting the general nature of the problem, the location of the farm, and other pertinent information. Frequently, this job requires a working knowledge of such things as state and federal livestock health regulations. In continual radio contact with the ambulatory units, Wendy also relays messages to the veterinarians, instructions to clients, and emergency calls. Normally it's a 9-5 day, but since a sick animal doesn't care what time of day it is, 2:00 a.m. calls for help are not unusual. For emergencies like these, the after-hours answering service can reach an ambulatory clinician at all times.

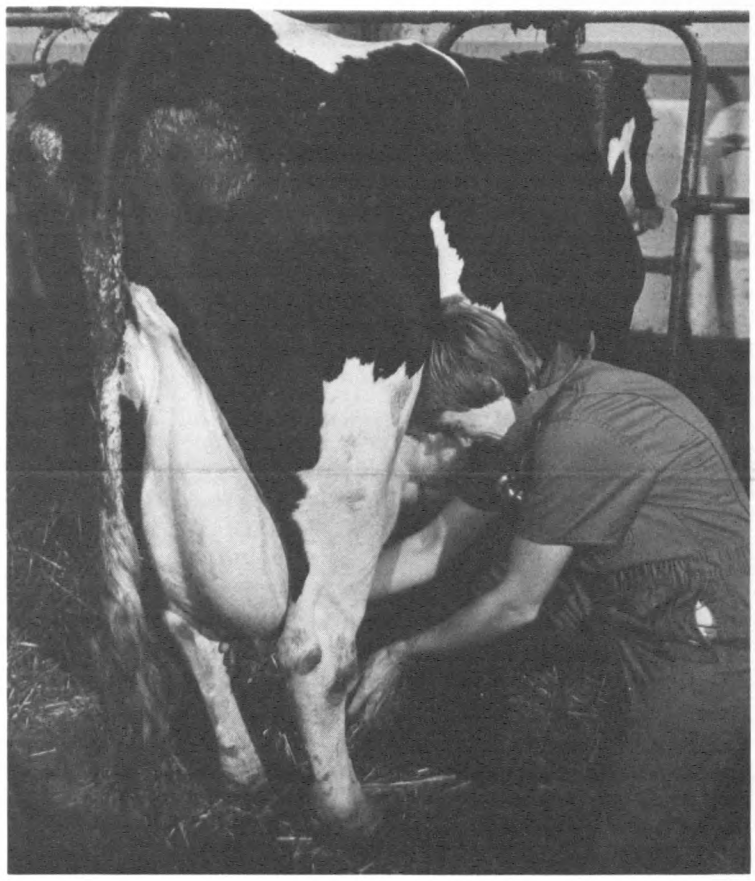
Ambulatory work is everything from herd health to surgical correction of a displaced abomasum. It is mastitis treatment and embryo transfer. It's floating teeth in horses and suturing lacerations. A major objective is to provide management consultant services to dairy farmers in the areas of mastitis, reproduction, and nutrition. In short, it's everything a veterinarian might do in his or her own large animal practice. Why do these veterinarians choose a veterinary college ambulatory practice over private practice? The main reason may be the College itself, and the accessibility it gives to specialists, facilities, and services few private clinics could provide. In addition to their field work, the College's ambulatory clini-

(Top right) Dr. Guard checks jugular pulse, (top left) Dr. Kelton prepares for surgery. (Middle Photo) Dr. Dinsmore checks for pregnancy, and (Above) performs a lameness test. (Right) Dr. Mary Smith listens while Dr. Stehman hoists a foot to be trimmed.

cians have the opportunity to teach and conduct research. The two senior members of the Ambulatory staff, Dr. Robert Hillman and Dr. Francis Fox, are ambulatory clinicians by virtue of their extensive field work, and respectively hold joint appointments in the sections of Reproductive Studies and Medicine while maintaining a full teaching schedule. Dr. Hillman also provides veterinary care to the region's largest A.I. bull stud. Dr. Mary Smith, along with her research in Johne's disease and mastitis, is editor of the AASGP newsletter "Wool & Wattles." Dr. Chuck Guard studies mechanisms of calf diarrhea, drugs affecting the motility of the rumen, and antibacterial drugs targeted at enteritic and respiratory infections. Dr Page Dinsmore researches cystic ovaries in dairy cows and with Dr. Smith conducts research on Johne's disease. Dr. Maurice (Pete) White has a special interest in medical decision-making and has developed a computer program for differential diagnosis called "Consultant." Dr. Dave Jasko's research centers on foals, including tetanus immunization in foals, colostrum availability in the milk of induced mares, and monitoring of blood selenium levels in mares and foals. Dr. Pam Powers has developed a special expertise in bovine embryo transfer and now conducts workshops in the technique and applications. Dr. Dave Kelton, the only resident this year, is studying periparturient ketosis in dairy cows. As interns, Drs. Sue Stehman and Neal Ralston are quickly learning the ropes of a veterinary college ambulatory practice.

Back in the late 1800's Dr. James Law, founder of the college, took students on calls with him, a practice that has carried down to the present day. Fourth year students in the professional DVM program are assigned to ambulatory duty as a required rotation. In two, two-week blocks, a student will ride with a designated clinician, assisting with all treatments and procedures. For many it's an eye-opener, their first academic experience "in-the-field" complete with inclement weather and recalcitrant beasts. It's also one of their favorite rotations and our photos, taken by photographer David Grunfeld, may give you a glimpse of what goes on when you ride with Ambulatory.

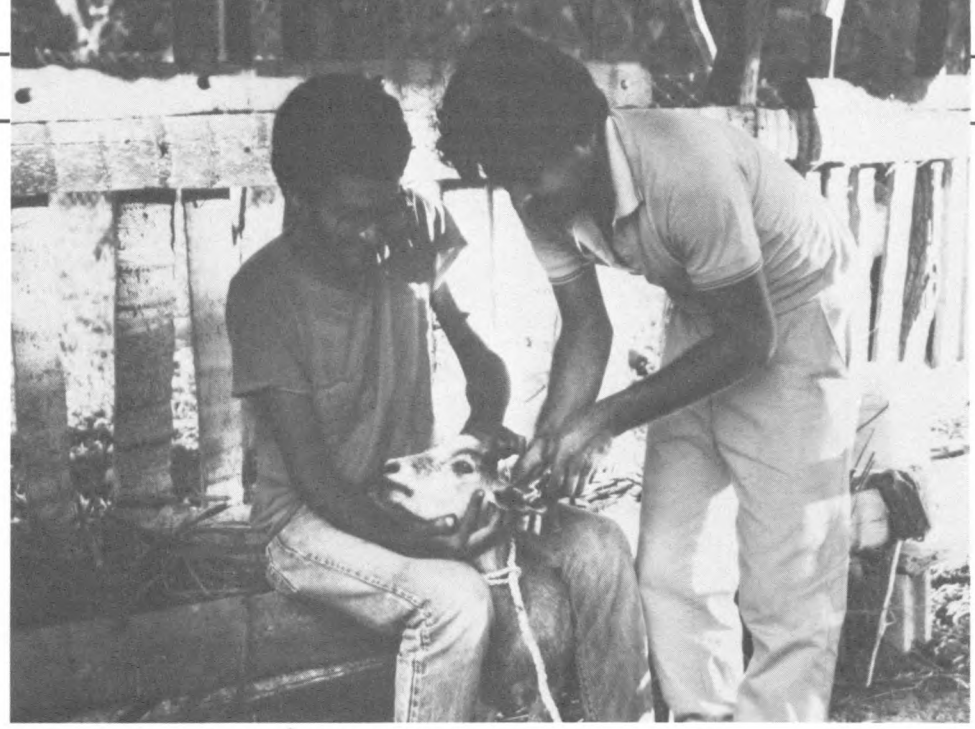
* "In the James Law Tradition 1908-1948" by Ellis Pierson Leonard, 1982.



(Top left) Taking blood samples in a herd. (Top middle) Dr. Powers flushes embryos for a transfer. (Top right) Drs. Ralston and Kelton begin a c-section while student Brad Taylor looks on. (Above) Dr. Stehman checks for mastitis. (Middle left) Dr. Dinsmore and student Sue Cleary complete a call. (Left) Not all the patients are animals.

Photos: D. Grunfeld

HAITIAN SUMMER



Jeff Rubin (seated) at work in Haiti.

IT'S A LONG WAY from Jeff Rubin's hometown of Monticello, New York to the island of Haiti where he spent 10 weeks last summer. Although Jeff grew up on a dairy farm, the agricultural life he experienced on Haiti was miles apart from the farm life he knew. Sponsored by VIDA (Veterinarians in Developing Areas) and a grant from the College's International Committee, he joined a friend of his who is the ruminant nutritionist for a Haitian national goat improvement project. This is a long-term program aimed at bettering the diets of rural Haitians through improved goat production and funded by various international agencies. When Jeff arrived, he was sent to work at the new breeding center in northwest Haiti where the land was still being cleared and he soon discovered there was more to accomplish than constructing a few buildings and accumulating goats. There was government redtape to contend with, communication problems, and differences in work attitudes caused largely by what could reasonably be accomplished in a tropical climate. It was also necessary to win the acceptance and trust of the local people because the success of the goat project would ultimately depend on them.

Compared to farming in the U.S., Haitian agriculture is extensive rather than intensive. Livestock roam free and, as a consequence, deforestation and erosion are a problem. Wood is the major fuel source and it is estimated that at the current rate of use Haiti will be out of wood by the end of the century. The goat improvement project might, at first glance, be adding to the problem by increasing the numbers of goats grazing the available vegetation. However, not goats but poor management is at the root of the problem. The present herds are inefficient because non-productive animals are commonly kept in the herd. Functioning as a breeding center to provide improved stock to native herds, the goat improvement project would increase the rate of production in individual herds while decreasing the numbers of goats. Nubian and Alpine bucks are already being imported for this purpose.

According to Jeff, goats work well in the economy of a developing country like Haiti. In an extensive system, they are more productive. As "lower cost units" they fit into the system better than a cow because for every cow, a farmer might be able to buy 5 goats and protect his investment.

Although the goat project has great potential, it still remains to be seen if it will succeed. Jeff saw the results of the first five months of a projected twenty year program and he finds it difficult to say how it will all work out. Much of the project's future depends on whether or not the Haitian government continues what outside agencies have begun. That question may be answered more fully in three years when the goat improvement program becomes a completely Haitian project. In a report on his work Jeff also adds "One of the most important lessons I took home was the realization that any project with a single specific goal is destined to failure. The idea of genetic elevation of the Haitian goat breed without providing education in animal health and management is worthless. On a grander scale, the goal of improving animal production without providing information on human health, nutrition, and population control is also of little benefit."

A major source of frustration for Jeff while in Haiti was his own lack of veterinary skills in an economy where veterinary care is practically nonexistent. Haitian veterinarians are few in number, are educated abroad, and typically return to take an administrative position with the government. Although there are some veterinarians in practice in the city, Jeff met no Haitian large animal veterinarians in ten weeks. The help that is available in the form of herd management comes from technicians employed by the government to work in the population; usually they have a two-year degree in agriculture or animal science. Jeff learned that when animals became sick they either died, got well on their own, or were treated with "home" remedies.

Back in the classroom again and beginning his second year in the DVM program, Jeff finds that the experiences of his Haitian summer are guiding him in his education. Although he's not certain he will make international veterinary work his career, he now knows where to put the emphasis in his future studies and what skills he needs to acquire. He also offered this insight into the ultimate value of his project: "I embarked on this trip with the purpose of learning if I would be interested in making development work my life's goal. I returned much changed in some ways. I feel that by sharing my experience with literally dozens of friends and colleagues, I am helping to enlighten them as to what life is like for a vast number of people less fortunate than ourselves. I feel that this alone, regardless of my future endeavors, made this project worthwhile."

DR. POPPENSIEK RECEIVES CENTENNIAL MEDAL

Photo: Biomedical Communications

DR. GEORGE C. POPPENSIEK, the James Law Professor of Comparative Medicine, is one of a select group of scientists, educators, and benefactors named to receive a specially-cast Centennial Medal from the College of Veterinary Medicine, The Ohio State University. The medal recognizes his distinctive service to the development of this College during its most recent history. Dr. Poppensiek received his medal during commemorative ceremonies held September 13, 1985 at The Ohio State University in Columbus, Ohio.

Poppensiek, who served for fifteen years beginning in 1959 as Dean of Cornell's College of Veterinary Medicine, also was recognized by a similar award from his Alma Mater, the University of Pennsylvania, during their centennial celebration in 1984. He holds the distinction of being the only North American veterinarian elected to membership in the National Academy of Agronomy and Veterinary Medicine, Republic of Argentina, for his service to Argentina. In addition, he is the first North American veterinarian to be elected to the Polish Society for Veterinary Medicine, a Division of the Polish Academy of Services, for his academic interaction with Polish scientists in the interest of veterinary education and research in Poland.

Poppensiek's professional expertise is in highly transmissible diseases of food-producing animals, notably those which have a detrimental effect upon the agricultural economy of developing nations; diseases which, though not present in North America, nonetheless also threaten the continent.

He is a Fellow of the American Academy of Microbiology, a certified diplomate of the American Board of Microbiology, a Fellow of the American Association for the Advancement of Science and a certified diplomate of the American College of Veterinary Microbiologists.

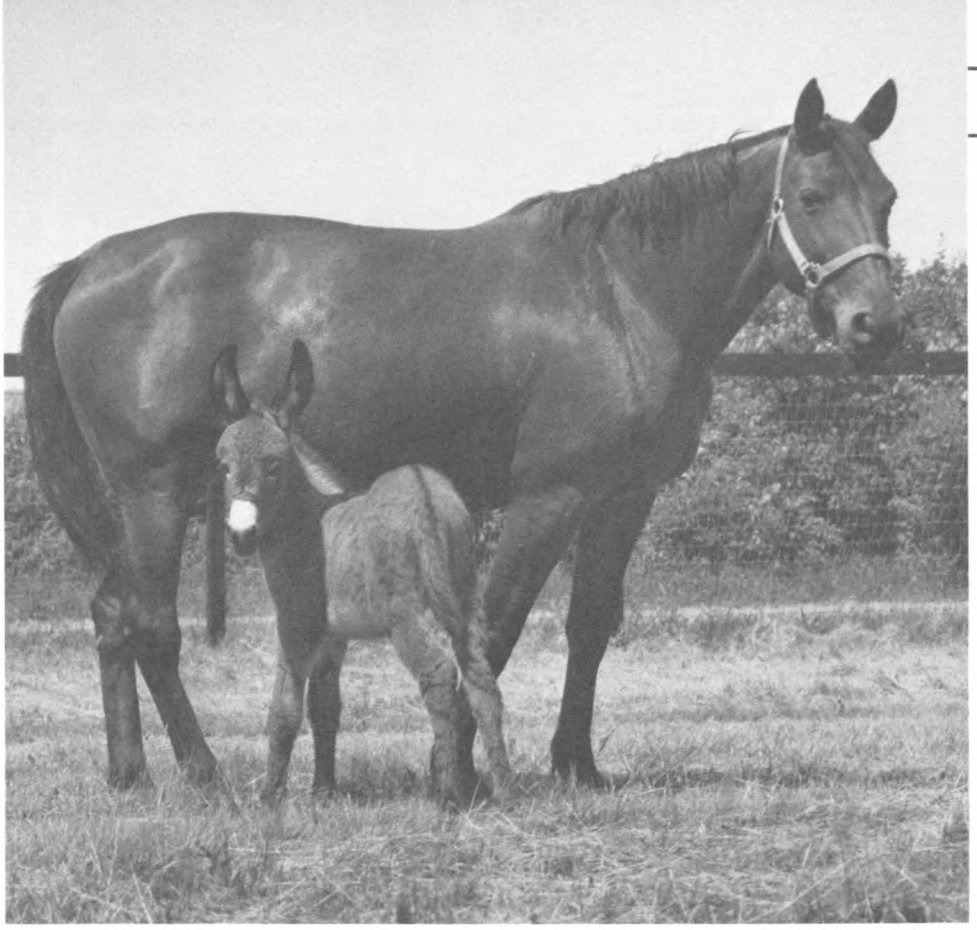


Photo: C. Harrington

ADORABLE LOUISE MAKES DEBUT

DOUGLAS F. ANTCZAK, VMD, Ph.D., Associate Professor of Immunology at the James A. Baker Institute for Animal Health, is the recipient of a 3-year renewal grant from the National Institute of Child Health and Human Development. The project, entitled "Comparative Studies of Pregnancy and Histocompatibility," was first funded by the NIH in 1981. Dr. Antczak and his co-investigator, Dr. W. R. "Twink" Allen, Director of the British Thoroughbred Breeders' Equine Fertility Unit, in Cambridge, UK, are studying immunological aspects of fetal-maternal interactions in the horse family. Their work involves the use of embryo transfer to create cross-species pregnancies which can result in the production of unusual dam-foal combinations, as pictured above. **Adorable Louise** is a donkey foal born to her Standardbred mother, Adorable Helene, as a result of embryo transfer. Drs. Antczak and Allen are using a variety of techniques, including monoclonal antibody technology, to dissect the structural and functional components of the equine placenta. They are especially concerned with the development of the endometrial cups and the maternal immune responses to fetal histocompatibility antigens which occur shortly after the cups are formed. At Cornell, this work is conducted primarily at the Dorothy Havemeyer McConville Barn, home of the Equine Genetics Center.

PETER OLAFSON, DVM

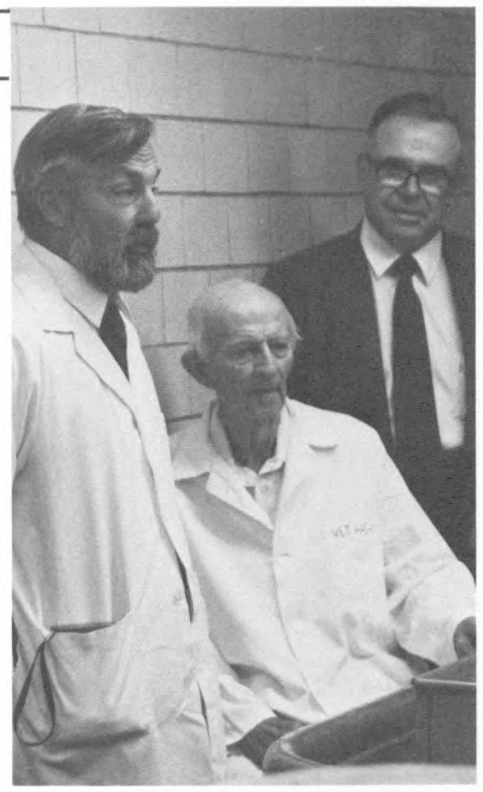


Photo: K. Redmond

Dr. John King, Dr. Olafson (seated), and Dr. Francis Fox during the 1984 Pathology Short Course.

PETER OLAFSON, Doctor of Veterinary Medicine and Professor Emeritus, died on September 3, 1985, after a long illnes. He was 88 years old.

Dr. Olafson was one of the leading veterinary pathologists in the United States, contributing to the definition and development of the field. His research included work on pyelonephritis in dogs, pseudoleukemia in calves, brain tumors in small animals, muscular dystrophy of lambs, equine wobbler disease, bovine listeriosis, toxoplasmosis, cardiac anomalies, and sterility in bulls. During the 1940's he was one of the first to recognize and describe bovine virus diarrhea and hyperkeratosis of cattle.

Born on a large farm in the Red River Valley, near Gardar, North Dakota, he was a rural school teacher before serving as an assistant in the Veterinary Department of the North Dakota Agricultural College where he went on to earn his undergraduate degree in 1924. That same year he began his studies at the New York State Veterinary College, graduating in 1926 with a DVM degree. He was appointed an instructor in Veterinary Pathology at Cornell, teaching in the department of pathology while he earned his masters degree, also from Cornell. In 1927, Dr. Olafson was appointed an Assistant Professor and in 1936 he earned the title of full Professor in the Department of Pathology. He continued to teach and conduct research until his retirement in 1965.

Dr. Olafson was a member of the American Veterinary Medical Association, the American Association of Pathologists and Bacteriologists, the International Association of Medical Museums, the New York State Veterinary Medical Society, and the Southern Tier Veterinary Medical Association. He was also a member of Sigma Xi, Phi Kappa Phi, and Phi Zeta. An annual Short Course in Pathology at the New York State College of Veterinary Medicine is named in his honor, and the James Law Distinguished Lecturer Series is dedicated to him as an "eminent veterinary teacher and pathologist, whose endeavors continue in the tradition of James Law." Dr. Olafson is survived by four daughters and several grandchildren.

GRANTS & AWARDS

EMMETT N. BERGMAN, Professor of Physiology, has received a grant for $121,259 from the National Institute of Arthritis, Diabetes, Digestive & Kidney Diseases for study on "Carbohydrate and Ketone Body Metabolism." Dr. Bergman and co-researcher Dr. Joseph McCann are studying metabolism and its adjustment to change, especially as it occurs during pregnancy, lactation, or starvation. They are particularly interested in lean vs. obese animals and the relationship of insulin to these states. In the newly funded studies, work will continue on glycine-serine interconversions in ruminants, and the response of the pancrease of insulin and glucagon secretion will be investigated.

LELAND E. CARMICHAEL, Professor, and co-investigator Dr. COLIN R. PARRISH, Assistant Professor in the Department of Veterinary Microbiology, James A. Baker Institute, have received a $61,950 award from the National Institute of Allergy and Infectious Diseases to continue their investigations on "Parvovirus: Structure and Function." The research will continue to focus on the relationship between parvovirus genomic structure and a variety of phenotypic characteristics. A principal objective is to define the molecular basis of the host range differences between canine parvovirus (CPV) and feline panleukopenia virus (FPV). These will involve future analysis of *in vitro* constructed recombinants, and their antigenic and animal infection characteristics. Final characterization of these viruses will involve sequencing the capsid protein genes to define the specific differences involved. Studies of the roles of the capsid protein in determining the host ranges of CPV and FPV will be completed and additional experiments will focus on defining the animal host range differences between FPV and the closely related parvoviruses of mink (mink enteritis virus) and raccoons. Important questions raised by the discovery that the original (1978) CPV strains found in nature have changed antigenically also will be investigated.

JOANNE E. FORTUNE, Assistant Professor of Physiology, will continue research on the "Regulation of Ovarian Follicular Estradiol Production" with a grant for $102,345 from the National Institute of Child Health and Human Development. Research will identify factors and conditions that regulate estradiol synthesis by mammalian ovarian follicles. Estradiol is the dominant steroid secreted by developing ovarian follicles and continued estradiol secretion is essential for follicles to reach ovulatory status. Investigations in several species led to formulation of the two cell, two gonadotropin model of the regulation of follicular estradiol production. According to this model, LH stimulates theca cells to produce androgen and FSH stimulates granulosa cells to aromatize androgen to estradiol. Dr. Fortune will investigate further interactions between gonadotropins and follicle cells and between theca and granulosa cells that regulate follicular steroid production.

ROBERT M. LEWIS, Professor and Chairman of the Department of Pathology, has received $154,892 in funding from the National Institute of Environmental Health Sciences for the department's continuing Environmental Pathology Training Program. Four trainees are currently enrolled in the program. The National Institute on Aging has also provided $123,568 in funding for the three year program "Training Veterinary Pathologists for Aging Research" conducted in conjunction with the Cornell Medical College, New York.

DIFFENDALE

Photo: Biomedical Communications

Diffendale with corrections officer Daniel Hoffman. The policedog was retired from the Canine Unit of the Department of Corrections in late October and now leads the life of a pampered family pet.

HIS DAYS ON the police force were numbered. He had a problem with his coordination, then a weakness became a partial paralysis, and by the time he was brought to the clinic, his paralysis was generalized.

Diffendale is a male, five year-old German Shepherd who is trained to sniff out contraband drugs. As part of his job, he visits prisons—or he did until a back problem gradually weakened his hind legs and impaired his ability to maintain balance while running or walking. Physical and neurological evaluations by veterinarians at the New York State College of Veterinary Medicine's Small Animal Clinic suggested the presence of a T3-L3 spinal cord lesion. This would be located approximately from the shoulder to the lower back. After a series of radiographs showed signs of a lesion in the spinal column near the level of the shoulder, Diffendale's owner gave permission for a myelogram—a procedure that injects a dye into the spinal fluid so that any compression of the spinal cord appears as a "dent" on a radiograph. Together, the tests suggested either a disc extrusion causing compression of the spinal cord or a neoplasia (tumor). By this time, Diffendale was walking only with help and after a consultation with the dog's owner, surgery to remove the material and relieve the pressure was scheduled.

A standard dorsal approach to T 2-3 was made. A dorsal laminectomy, the removal of the roof of bone above the spinal cord, exposed the spinal cord of T2 & T3 and was extended approximately 3 inches in length. Dr. James Flanders found a mass underneath the spinal cord and compressing it which resembled a disk protrusion. This was removed and submitted for histopathology. Subcutaneous fat was laid over the defect in the spinal column and the incision closed. Later, histopathology's report described the mass as a 4 mm. diameter round white soft piece of tissue whose surface had a fine intertwining cord-like texture. In short, it was disc material extruded from the once-protective spinal column. How did this occur? Although slipped discs are rare in German Shepherds, this may have resulted from a sudden movement.

Unexpectedly, Diffendale failed to improve as rapidly as hoped after the surgery. Ambulating for several days, he suddenly showed signs of a decrease in neurologic function to the pelvic limbs. A second myelogram was performed and revealed the presence of further disc extrusion at this site. Again, permission was given for surgery.

In this second surgery, Dr. Flanders found that more disc material had protruded into the ventral column and was elevating the spinal cord dorsally pressing it against the subcutaneous fat. This disc material was removed and more of the spinal canal wall was removed for additional exposure. Again, fat was place over the exposed spinal cord for protection.

The first post-operative change was a decrease in the pain Diffendale was experiencing since pressure on the spinal nerve had been relieved. The day following surgery he was able to pull himself around in a walker, although there was still no movement in his hindlimbs. By the second day, the hindlimbs were reacting to stimuli and by the third he was restless enough to unsuccessfully attempt a stroll without the walker. Then progress halted and for the next week the news was discouraging. Sensation in Diffendale's hindlimbs decreased and there was no willful movement in the limbs. Then an infection occured along the suture line. Despite a visit by his owner, Diffendale became more and more depressed and the attending clinicians grew equally pessimistic about his chances of recovery.

On Day 8 following surgery, the student in charge of the case optimistically noted Diffendale's hindlimbs showed increased pain sensation, but still no movement. It was the first sign. On Day 9, the entry reads, "Diff appeared to move his hindlimbs this morning while he was walking with his forelegs. He seemed to flex his hips in coordination with his front legs. He was not able to do the same later." A tantalizing start, and it appeared to be the turning point. By Day 10, the police-dog was more alert and stronger and his hind limbs showed slight voluntary motion during the daily walks outside. Twelve days after the second laminectomy, Dr. Dougald Gilmore wrote in the record "Diff supports himself well on front limbs. He is a frustrated dog, but frequent walks and whirlpool (therapy) may help him feel better and help with his management." Then three weeks after surgery the record shows, "Diff seems to be improving every day. He may be able to walk quite soon."

At the time of his discharge from the clinic, Diffendale was able to stand on both hindlimbs. He still had difficulty maintaining his balance but home therapy would begin to build up his leg muscles with long walks and short jogs. In mid-September, nearly a month after surgery, Diffendale was back in the clinic for a re-check. At that time he was walking well, although he occasionally tipped over when running. The right rear leg was lagging behind in recovery, but overall progress indicates Diffendale will be his old self in no time.

Veterinary Viewpoints

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