



N. Y. S. COLLEGE OF
VETERINARY MEDICINE

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Veterinary Viewpoints

Winter 1981

Number Thirteen

The New York State College of Veterinary Medicine
at Cornell University



Equine Research Wins at Saratoga

"It was a great party and a fantastic week," said Mr. E. Barry Ryan, chairman of the college's Equine Advisory Council, as he presented Dean Melby with a check for \$12,500 representing the proceeds from benefit events held during the week of festivities celebrating the Travers Stakes in Saratoga Springs, NY in August 1980. This was the one hundred eleventh running of the nation's oldest stake race, a favorite of thoroughbred horsemen and summer visitors to Saratoga.

The major fund raising event of the week was "The Travers Celebration", a festive dinner dance attended by four hundred fifty people. Many of the essentials for the outstanding party, including the prizes, were underwritten by loyal supporters of the equine research program at the college. A celebrity golf tournament, a foot race for one hundred seventy runners and another race for one hundred twenty bicyclists, an arts and crafts show, and a parade enlivened the week preceding the race and provided additional funds to benefit the College of Veterinary Medicine and the Saratoga County unit of the American Cancer Society.

"Mr. Ryan deserves our most heartfelt gratitude for the initiative and energy he personally invested in developing this outstanding project," remarked Dean Melby during the October meeting of the Equine Advisory Council at the college. Dean Melby continued, "This check represents far more than mere dollars; it represents the spirit of dedication and cooperation of the entire advisory council in giving their enthusiastic support to a project to raise funds for our equine programs." The dean also gave special recognition to Mrs. Audrey Lowe for acting as the college's liaison with the Travers Committee.

The Travers Celebration was such a splendid success that Mr. Ryan is beginning to make plans for next summer's festivities. Keeping in mind the popularity of Saratoga in the summer, you might want to begin your own preparations now to be a part of these exciting events next August.

E. Barry Ryan (center), chairman of the college's Equine Advisory Council, presents a check for \$12,500 to Dean Edward C. Melby, Jr. The check represents the proceeds from benefit events held during the Travers Celebration in Saratoga Springs, NY last August. Audrey Lowe, college liaison for the Travers Celebration, looks on.

From Cat Fancier to Benefactor

The Cornell Feline Health Center was named as beneficiary of the estate of a retired New York State teacher and cat fancier and received almost \$100,000 as a result of the gift.

Mrs. Sarah H. Swits of Ballston Spa, NY, named the college as sole distributee of her estate. Her will states that the proceeds are to be used for the purpose of supporting care, treatment and research on cats. Mrs. Swits directed that the gift should benefit all types of treatment and research on cats conducted by the center and at the Small Animal Clinic within the college.

Mrs. Swits had been a lifelong cat fancier. Her last cat, "Puddy", was a Maine Coon that died in 1975, succumbing to cancer. "All my life I have loved and been completely dedicated to cats," wrote Mrs. Swits in a letter to Dr. Fredric Scott, director of the center. "I hope that what I am able to contribute will give [cats] a happier, healthier and more pleasant life. If only *one* is helped, I'll be content," she wrote.



"Full Accreditation"

"Congratulations on the attainment of this goal and Godspeed in your constant pursuit of excellence. The Council is impressed by what you are accomplishing." These words in the brief letter from the American Veterinary Medical Association Council on Education concluded the announcement that the College of Veterinary Medicine has been given "Full Accreditation" status.

The Council on Education placed the college on a five year probation in 1976 citing certain inadequacies in facilities and staffing, especially in selected clinical specialty areas. During the intervening period, more than six million dollars, about half in State funds, had been spent on renovation

and construction at the college. A much needed large animal sterile surgery suite is almost complete and a new large animal isolation facility is under construction. The number of faculty members has increased by thirty-one percent to one hundred six people. This increase included the formation of two new departments, Preventive Medicine and Pharmacology.

Dean Melby commented, "Each year, as the biomedical sciences mature, we see changes in the expectations for veterinary medical education. It is important to keep in mind that, in our field, accreditation is an ongoing process and that the faculty must be continually aware of the latest advances in veterinary medicine. The diligence and creativity of the faculty are major factors in the College's ability to meet the demanding standards of accreditation."

Physiology Consolidation

As the result of action by the Cornell University Board of Trustees, the newly created Department of Physiology brings together, for the first time, all of the people responsible for research and teaching of physiology and biochemistry courses in the college. Eleven of the twenty faculty members in the department have joint appointments with the Section of Physiology, a unit of the Division of Biological Sciences, with university-wide responsibility for undergraduate and graduate level physiology programs. The appointment of Dr. William Hansel as chairman of both the new department and the Section of Physiology facilitates cooperative efforts among the university's colleges and strengthens the teaching program of this college.

Dr. Hansel, Liberty Hyde Bailey Professor of Animal Physiology, has been a member of the Cornell University faculty since 1949 when he completed work for the Ph.D. degree in animal physiology here. Author or co-author of more than one hundred seventy five publications in his field, he has received awards from the American Society of Animal Science and the American Dairy Science Association. This year, he received the Carl G. Hartman Award from the Society for the Study of Reproduction.

Dr. Hansel's work in the physiology of reproduction has resulted in the development of methods for controlling and synchronizing estrous cycles of cattle. These procedures make artificial insemination of cows feasible, a practice which significantly increases efficiency and production, and provides an opportunity for improving genetic strains of cattle raised for beef.

Message from the Dean

With this issue of Veterinary Viewpoints you will note a substantial change in design and format. After much study and discussion we decided to develop a publication that would offer greater flexibility in permitting us to bring new information to your attention as well as provide a more efficient, cost effective approach. We hope you will like this change and encourage any comments, suggestions or advice you might wish to offer in helping us to find the best possible means to provide you with timely information about the activities of the College.

Over the past several months I have had the occasion to talk with a number of alumni and friends of the college who have expressed concern about faculty turnover. Indeed, since last June nearly fourteen percent of our total faculty have departed Cornell for other posts, and I am aware that others are still under active recruitment.

There is no single reason or explanation which can be applied to each situation. However, as many of you are aware, colleges of veterinary medicine are now undergoing an unparalleled expansion. Coincidentally, new schools are being established and faculty recruited to staff them. Included in the list are the new schools in North Carolina, Virginia, Wisconsin and Massachusetts, together having a need for somewhere between three hundred and four hundred new faculty members.

For at least two decades there has been significant opportunity for faculty members, regardless of disciplines, to move on to new, more challenging positions in higher education. Ironically, at a time when such opportunities have markedly decreased in most academic circles, veterinary medicine has become an exception. As a result of recruitment by new schools, there is a demonstrated ripple effect throughout most of the established schools and colleges. As losses occur, each school enters the market to identify and attract the most qualified replacements. Therefore, a period of intense turmoil exists throughout most of the veterinary schools in North America.

Almost without exception, our people are hired to serve in important roles of leadership as associate deans, department chairmen, and division and laboratory heads. From one perspective, we are very pleased to know that our faculty are held in such high regard that they become targets for recruitment by many institutions.

To me, however, one of the unpleasantnesses of serving on any university faculty is to experience the loss of friends and colleagues. As difficult as it is to say goodbye to old friends, the time must also be viewed as one of extraordinary challenge. It is an



opportunity for those who go on to fill new positions of responsibility and a time for the college to discuss new directions of endeavor.

There is no question that these past few months have been trying on the faculty, staff and students. Several programs have or are being reorganized to meet the new challenges of the 1980's. Cooperation has been superb; course offerings are well received and the Teaching Hospital enjoys an excellent reputation. Far from being discouraged, we are anxiously looking forward to the continuing revitalization which these changes in faculty and programs create. As opportunities arise, I hope you will make an effort to welcome the new faculty and staff who will continue the enviable Cornell tradition.

Veterinary medicine is undergoing dynamic changes with pressures deriving from nearly every segment of society. I can assure you that we will strive to make Cornell a place where highly qualified and motivated faculty members seek to remain or aspire to join, thus continuing the tradition of excellence in teaching, research and public service which has singled out this institution as a world leader.

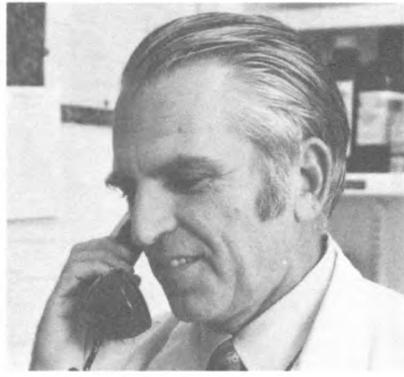
VETERINARY VIEWPOINTS

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 Kenneth Marash, Editor, C-122 Schurman Hall, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853. Telephone: 607/256-7699.

Cornell University is an equal opportunity, affirmative action educator and employer.



Francis H. Fox



Robert W. Kirk



Footnotes

FACULTY

DR. ROBERT H. WASSERMAN, Professor of Physical Biology, was elected to membership in the National Academy of Sciences, joining a select group of the nation's top scientists from many fields in addressing national and international problems where the insight of the scientific community is of particular benefit. Dr. Wasserman's research interests involve the transfer of calcium, and phosphorus movement in the intestine. DR. FRANCIS H. FOX, '45, Professor of Veterinary Obstetrics, received a special award by the New York State Veterinary Medical Society to recognize his many years of service on the Executive Board of the American Veterinary Medical Association. FRANCIS A. KALLFELZ, '62, Professor of Medicine in the Department of Clinical Sciences, is the new president-elect of the American Academy of Veterinary Nutritionists. BRUCE W. CALNEK, '55, Professor and Chairman of the Department of Avian and Aquatic Animal Medicine, was elected vice president of the American Association of Avian Pathologists. WOLFGANG O. SACK, Professor of Veterinary Anatomy, is the new



Robert H. Wasserman

president-elect of the American Association of Veterinary Anatomists. ROBERT W. KIRK, '46, Professor of Small Animal Medicine, is the American Board of Veterinary Practitioners' new executive secretary. GARY R. BOLTON, Associate Professor of Small Animal Medicine, received a Service Award from the American Animal Hospital Association, Region One. He was cited as "an exemplary teacher and motivator." Dr. Bolton specializes in cardiology. FRED W. QUIMBY, Director of the Division

of Laboratory Animal Sciences and Director of the Cornell Center for Animal Resources, has been certified as a Diplomate of the American College of Laboratory Animal Medicine. JEFF N. DAVIDSON, Assistant Professor in the Department of Preventive Medicine and the Diagnostic Laboratory, joins a multidisciplinary group of Cornell faculty and researchers forming the Cornell Minicomputer Dairy Management Project. The group will integrate the many disciplines involved in the production and management of a commercial dairy farm and develop an on-farm computer system that will aid the farm manager to compile and assess the tremendous amount of data that affects the farm operation. The project is funded by a \$240,600 grant from the W.K. Kellogg Foundation of Battle Creek, MI. ROBERT E. HABEL, Professor of Veterinary Anatomy, Emeritus, will be spending the spring semester as a guest of the Faculty of Veterinary Science at the University of Sydney, New South Wales, Australia. He was awarded an Evelyn Williams Visiting Scholarship and named a Visiting Professor of Anatomy. While in Australia, Dr. Habel will teach ruminant anatomy and take part in a seminar series at the University of Sydney.

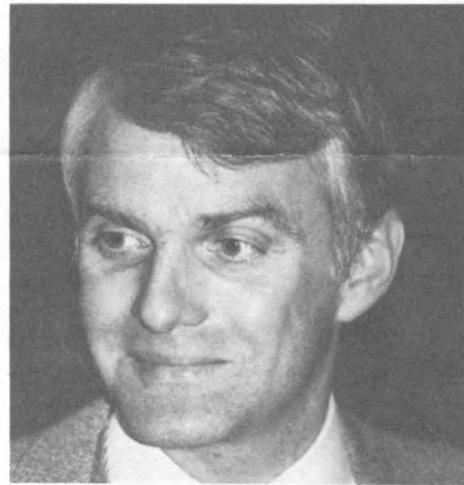
STAFF

A welcome addition to the staff of the Feline Health Center is LEO A. WUORI, '42, the New York State Veterinary Medical Society's 1979 Veterinarian of the Year. Dr. Wuori will work part-time to coordinate the public service and fund raising aspects of the laboratory and to organize various programs for cat breeders and a program for



Leo A. Wuori

the Cornell Adult University. EUGENE W. SLATOR became the Director of Medical Records in the Teaching Hospital in the Fall of 1980. He has a B.S. degree in communications from Ithaca College and a certificate in Medical Records Administration from Hunter College. Gene has participated in the administration of large medical records departments at the Payne-Whitney Psychiatric Hospital and Columbia Presbyterian Hospital in New York City. JAMES BROOKS is the new Medical Records Administrator for the nationwide Veterinary Medical Data Program Participants, Inc., which is headquartered at Cornell. Jim is a graduate of Ohio State University and has held supervisory positions in medical records administration at the highly computerized Henry Ford Hospital in Detroit, MI.

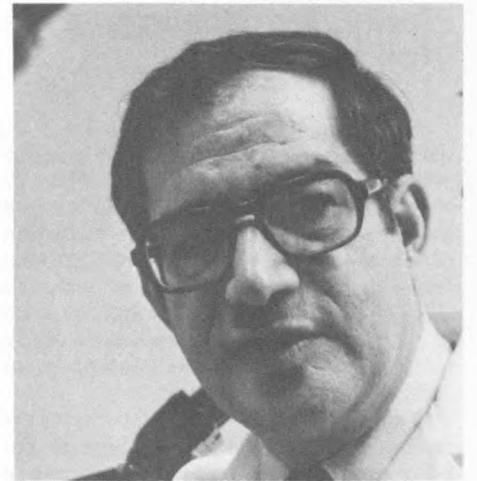


Francis A. Kallfelz

ALUMNI

JOHN B. MCCARTHY, '52, was named the 1980 Veterinarian of the Year by the New York State Veterinary Medical Society. STANLEY GARRISON, '50, W. MORTON HOWE, '57, DONALD C. MCKOWN, '43, and LOUIS C. SCHIMOLER, '47, all received Certificates of Merit from the New York State Veterinary Medical Society at their annual meeting last October. At that meeting EDWARD STEINFELDT, '41, was elected president, ROBERT MANNING, '55, was named president-elect and ARTHUR FRIDERICI, '55, was elected treasurer.

Taking over the reins as president of the American Veterinary Medical Association is STANLEY M. ALDRICH, '50. GEORGE E. MEERHOFF, '64, is the new president of the Pennsylvania Veterinary Medical Association for 1981. PETER S. MACWILLIAMS, '69, has been certified as a Diplomate of the American College of Veterinary Pathologists. D.E. KAHN, '65, was elected chairman of the American College of Veterinary Microbiologists at their annual meeting last summer. A 1980 graduate of the college,

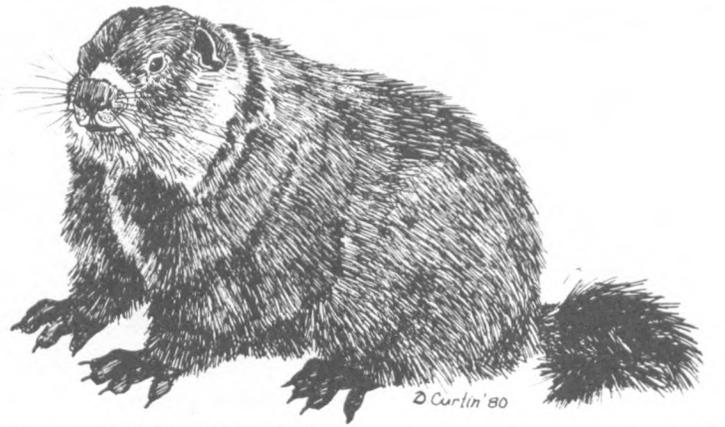


Bruce W. Calnek

DEBRA C. MAINVILLE, was awarded the Senior Student Award for 1980 from Cornell by the AVMA Auxiliary. BENNETT J. COHEN, '49, was given the Charles River Prize by the AVMA to recognize his outstanding achievements in the specialty of laboratory animal medicine. DAVID A. MORROW, '60, won the AVMA's Borden Award for outstanding research in dairy cattle disease control. COL. FLOYD C. SAGER, '17, was awarded the Practitioner Research Award by the AVMA for outstanding accomplishments in veterinary medical research as a veterinary practitioner. WILLIAM E. JENNINGS, '31, is the new president of the American College of Veterinary Preventive Medicine. J. WALTER STREETT, '65, has received his certification as a Diplomate of the American College of Laboratory Animal Medicine.



Stanley M. Aldrich



Finally, Woodchucks Working For Us

Few farmers and gardeners think of the woodchuck as anything but an absolute pest with an uncanny ability to destroy the very vegetables that filled the fantasies of the gardeners in February. With the advent of fall, the garden is a battlefield of beanstalks devoid of their fruit, the pasture is littered with devious tunnels that reach out to grab unsuspecting ankles with a vicious twist, all courtesy of this plump, imperturbable, furry little varmint.

There is another aspect to this all too common pest which could unravel perplexing questions surrounding some of humankind's most devastating diseases. It is on this basis that the National Institutes of Health awarded a \$1.2 million contract to the Department of Clinical Sciences to develop the woodchuck (*Marmota monax*) for use as an animal model of human diseases.

The project's principal investigator, Dr. Bud C. Tennant, Professor of Comparative Gastroenterology, noted that the woodchuck is naturally infected with a virus that is remarkably similar to human hepatitis-B virus (HBV). Woodchuck hepatitis virus (WHV) is the second member of a novel class of viruses that had been previously represented solely by HBV.

"Feral individuals have been used for decades in physiological studies of hibernation, in biomedical studies of atherosclerosis and in inquiries into the nature of obesity," said Dr. Tennant. "But, there has never been a source of woodchucks suitable for the intensive kinds of research now being proposed. We hope to change that."

The problem with woodchucks taken from the wild is that the genetic and medical history of these animals is unknown, which only adds confusing variables to an already complex investigation. "On-going, long-term experiments using woodchucks have been hampered by a high rate of reproductive failure, both failure to conceive and frequent deaths of newborn pups, which may be as high as fifty percent," said co-investigator Dr. Patrick W. Concannon, a Senior Research Associate and reproduction specialist. "This appears to be due to maternal neglect related to environmental disturbances and to the lack of normal maternal behavior in females bearing young in the laboratory," he said.

A major goal of the project is to develop a breeding colony of woodchucks, producing one hundred young per year, free from known diseases, and whose genetic and biological profiles are clearly defined. This will entail the gathering of a huge body of new information about the nutritional and environmental conditions necessary for optimal growth and reproduction in a laboratory situation.



Investigations of viral hepatitis have been severely impeded in the past by the lack of a truly comparable animal model to study the consequences of chronic hepatitis infections. The recent development of an HBV vaccine heralds a major step forward, but, without an appropriate non-human model to fully test the vaccine, its long-term effects will be difficult to assess.

Not only is the woodchuck seemingly ideal for the study of viral hepatitis, but also for the study of another closely related human malady, primary hepatocellular carcinoma (PHC), or cancer of the liver. PHC is among the most important human cancers on a worldwide basis, especially in the developing countries. Control of one of the known risk factors, namely HBV infection, might result in meaningful reductions in the incidence of PHC and the saving of many lives around the globe.

Research at Cornell University on the woodchuck has a long history, first being conducted in 1912. The recently formed Cornell Woodchuck Research Group (CWRG) brings together collaborators from the veterinary college, the Cornell Medical College, and the Rachelwood Wildlife Re-

search Preserve. Utilizing the traditionally strong Cornell programs in animal reproduction and nutrition together with the veterinary college's increased emphasis on laboratory animal medicine and its significant experience in the use of animal model systems in human health related research, the project collaborators bring a vast array of expertise to seek answers to this problem.

Although the average vegetable gardener might assert that he or she knows more than enough about the woodchuck's preference for parsley and snap beans, Dr. Concannon thinks otherwise. "Formulating a diet will be an exasperating process," he said, "because so little is known about the woodchuck's specific dietary requirements" for maintenance, growth and reproduction. Complicating the puzzle are special dietary considerations. Dr. Tennant noted that "a high frequency of atherosclerosis has been reported in captive woodchucks that may relate to some unique metabolic characteristic of these animals."

In humans, the onset of atherosclerosis has been linked to a vascular disease that stems from HBV. Since WHV induces a disease in woodchucks that is notably simi-

lar to HBV, and since woodchucks have a high incidence of human-like atherosclerosis, the CWRG investigators are paying particular attention to the susceptibility of the woodchuck to virus-induced atherosclerosis.

"Despite the significant problems," said Dr. Tennant, "we have confidence in the expertise and diligence of the group and believe these problems can be overcome. The tremendous value of the woodchuck as a model for human hepatitis should lead to great strides forward in our ability to understand and control this significant human affliction."

The annual appearance of "Punxsutawney Pete" every February 2 may soon symbolize more than the coming of new life in the spring and the wane of winter cold and darkness. It could symbolize the wane of our ignorance of viral hepatitis and the hope that we have taken one more step toward eliminating the pain and suffering throughout the world due to this disease.

Drawings by Donna Curtin



Teaching Hospital Has New Administrator

Richard Rostowsky is the college's new Assistant Dean for Hospital Administration. He will be responsible for the supervision and fiscal management of the Teaching Hospital. One of his first tasks is to evaluate the hospital's operation and to design procedures to maximize efficiency and fiscal productivity.

Before coming to Cornell, Rich was vice president of the 494-bed St. Joseph Hospital in North Providence, Rhode Island.

Rich received his Bachelor of Science degree in 1973 from the University of Vermont. He subsequently returned to school and earned a second B.S. degree in hotel management from the University of Massachusetts in 1975. Leaving Massachusetts for Ohio, Rich enrolled in the graduate program of hospital and health administration at Xavier University and was awarded a Master's degree in hospital administration in 1977.

Rich is an avid sports fan and battled with the Ottawa Rough Riders in the Canadian Football League between 1973 and 1975. In Ithaca, he keeps his athletic prowess tuned by participating in a variety of sports.

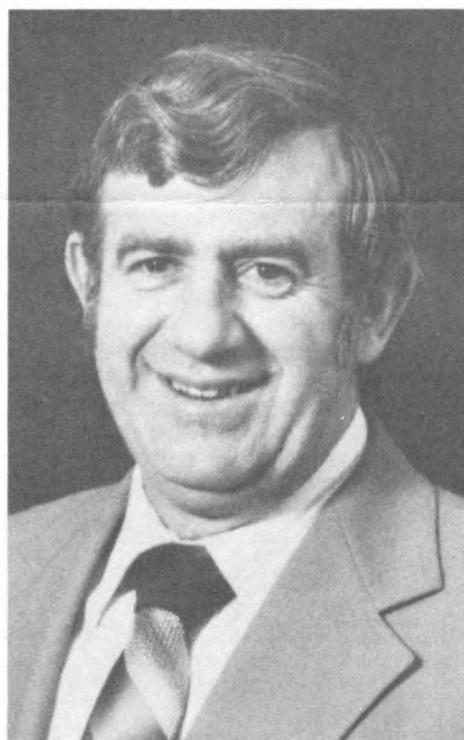
Continuing Education and Extension — Your Links to Knowledge

During the past year, the college's continuing education and extension programs have been revitalized and strengthened with new leadership. In the winter of 1979, Dr. Charles E. Short added to his responsibilities as Chief of the Section on Anesthesiology by accepting the appointment as Director of Continuing Education. To supplement the annual conference for veterinarians and the established short courses, he has been instrumental in developing a number of new programs which incorporate a

multidisciplinary approach to instruction. Dr. Donald Lein transferred from the Department of Clinical Sciences to accept an appointment as Assistant Director of the Diagnostic Laboratory in early 1980. In his role as field services coordinator, he assists veterinarians in the state with their diagnostic problems.

A new veterinary extension program has been initiated to complement these existing programs. Recognizing that prevention is the key to disease control in dairy and beef

cattle production, Dr. Michael A. Brunner, Assistant Professor of Preventive Medicine, joined the faculty last fall to assist veterinarians in problems of herd health management. He will work closely with the extension faculty of the College of Agriculture and Life Sciences, pooling their knowledge about disease control, nutrition, reproduction, sanitation, economics and engineering to provide complete service to New York's agriculture industry.



Dr. Charles E. Short

Dr. Short earned a D.V.M. degree from Auburn University and an M.S. degree in physiology and biomedical electronics from Baylor College of Medicine. He is a Founding Charter Diplomate of the American College of Veterinary Anesthesiologists. Prior to coming to Cornell in 1977, Dr. Short established the anesthesiology department at the University of Missouri.

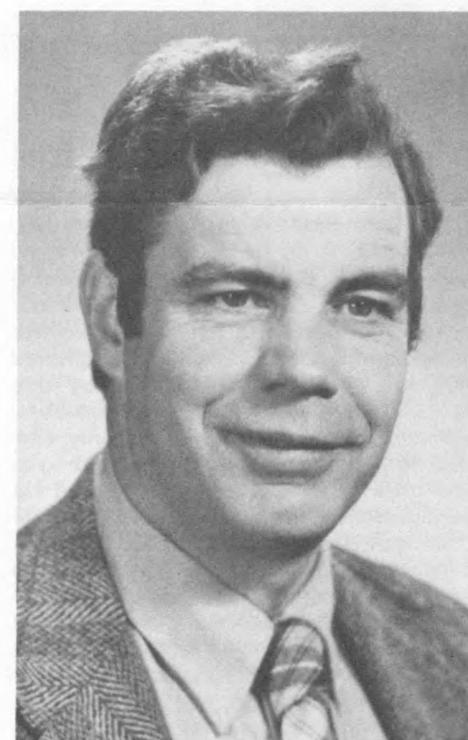
Widely recognized for his leadership in developing the field of veterinary anesthesiology, Dr. Short is equally well known for his enthusiasm for continuing education activities. He has presented more than one hundred seventy five seminars, workshops and lectures to veterinarians, physicians and technicians throughout the United States and thirteen other countries.



Dr. Michael A. Brunner

A native of Wisconsin, Dr. Brunner was raised on a dairy farm. In 1961 he earned a B.S. degree in dairy husbandry from the University of Wisconsin. He then pursued graduate studies in reproductive physiology at Cornell and received a Ph.D. degree in animal science in 1968 and a D.V.M. degree in 1970. His ten years in private practice in Wisconsin's dairyland strengthened his interests in preventive medicine and herd health management.

One of Dr. Brunner's first projects at the college is the editing of the Veterinary Extension Service's newsletter, "Veterinary Topics." Published bi-monthly, it will provide veterinarians with the latest information about health problems and outbreaks of disease in both large and small animals.



Dr. Donald H. Lein

Dr. Lein graduated with distinction from the New York State College of Veterinary Medicine in 1957 and entered a mixed private practice in western New York. In 1965, he returned to Cornell to work in the Department of Reproductive Pathology and has remained here except for an absence to earn a Ph.D. degree in pathobiology from the University of Connecticut.

Associated with a number of research projects, Dr. Lein recently began helping farmers concerned about low level radiation emitted by nuclear power plants near Oswego, NY. He is in the process of developing and maintaining reliable records on the animal population to study the effects of environmental contaminants and pollutants.



Fond Farewell

After a distinguished career that spanned thirty-eight years in the laboratory and classroom, Dr. Stephen B. Hitchner retired on February 4, 1981. In recognition of his many contributions, he has been named Professor of Avian Diseases, Emeritus. While chairman of the Department of Avian Diseases, from 1966-76, his inspiration and determination led to a broadened perspective of the department and its being re-named the Department of Avian and Aquatic Animal Medicine.

His research has been largely directed

toward developing new or improved virus vaccines, and improved methods for their application. A strain of Newcastle disease virus that bears his name is still used worldwide.

Through his impetus, a new program in companion bird medicine was established at the college. Vaccines against canary pox and Pacheco's disease have been developed as a result of his research.

Dr. Hitchner, who was an All-American lacrosse player, and his wife, Mariana, plan to move to Maryland later this spring.



Stephen B. Hitchner

Cornell Receives Pathology Training Grant

The New York State College of Veterinary Medicine is one of five institutions nationwide selected by the National Cancer Institute (NCI) for a Training Grant in veterinary pathology. The grant, totalling \$612,616 over a period of five years, will be used to alleviate the critical shortage of certified veterinary pathologists that exists in industry, government and educational institutions.

The shortage is mainly due to the regulatory action of the federal government. "The increasing morass of regulations concern-

ing product development," said pathology department chairman Dr. Robert M. Lewis, "has created a demand for more sophisticated testing techniques in evaluating the effects of drugs, chemicals and new products. The responsibility for examining that material lies in the hands of the veterinary pathologist."

To ensure a product's safety, many time-consuming testing procedures must be undertaken. Dr. Lewis explains, "If a company wanted to develop a new hand cream, they would have to go through a whole barrage of testing sequences. Right in the middle is the pathologic examination of the effects of the compound on a variety of animal models."

The purpose of the program, according to Dr. Lewis, is to add significantly to the number of veterinary pathologists certified by the American College of Veterinary Pathologists. There are currently four hundred fifty board certified veterinary pathologists throughout the world, most of whom work in the United States. Another three hundred positions remain open due to the lack of an adequate number of qualified pathologists.

Trainees supported by the grant will undergo a two year basic regimen in ana-

tomic pathology by rotating through the department's diagnostic services: necropsy pathology, surgical pathology, and the pathology of laboratory animal species.

After the basic disciplinary skills have been mastered, the trainees will work in supervisory roles in the specialized diagnostic laboratories as an introduction to administration. "The aim," said Dr. Lewis, "is to train them in such a way that they will be functional from day one" in their new positions in industry, government or private research laboratories.

A unique component of the Cornell program is a cooperative arrangement between the college and Hazelton Laboratories in Washington, D.C., Bristol-Meyers Co. in Syracuse, NY, and the Bio-Assay Testing Program at NCI for externships for third year trainees. Under the arrangement, the trainees will work at the cooperative institution for one month to gain a firsthand exposure to the actual procedures and demands of work in private research institutions, industry and government.

The grant will support a maximum of seven post-doctoral trainees in each year and a total of eleven trainees over the five year span of the grant.

system, due to its mimicry of the distal tubule and collecting ducts of the human kidney. During this time, he taught in the departments of pharmacology and physiology at Harvard Medical School and in the department of biochemistry at Harvard College. He was promoted to Associate Professor of Physiology at the Harvard Medical School and at Massachusetts General Hospital in 1971 and remained there until 1978.

Before coming to Cornell Dr. Sharp had been Professor and Chairman of the department of physiology at Tufts University Schools of Medicine, Dental Medicine and Veterinary Medicine since 1978.

In 1970, Dr. Sharp served as Consultant to the SEATO-PHS Hospital in Dacca, Bangladesh, following his initial studies which demonstrated that cholera toxin stimulates the enzyme adenylate cyclase in the causation of diarrhea. After ten years of basic studies on the actions of the toxin, he is presently conducting a systematic search for pharmacological agents effective in the treatment of the severe diarrhea of cholera. This research is funded by the John A. Hartford Foundation, Inc. and the National Institutes of Health.

A year's sabbatical leave at the Institute of Clinical Biochemistry at the University of Geneva, Switzerland in 1973, developed Dr. Sharp's interest in diabetes related research. Using a blend of pharmacology, biochemistry and physiology, he is studying the control mechanisms of hormone synthesis and release in islets of Langerhans in the pancreas, which produce insulin. Last summer he was given the Senator Richard S. Schweiker Award from the American Diabetes Association.

The Ithaca community offers the environment which will permit Dr. Sharp to enjoy some favorite leisure activities. He is an avid runner and cross country skiing and ski-racing enthusiast. In 1978, he participated in the Hennessy Ski Marathon in Vermont and a year later he travelled to Switzerland for the Engadine Ski Marathon. Closer to home, one can find a large number of clematis vines in his garden and he has been caught eyeing the space outside his office window as a site for his favorite flowers. Dr. Sharp is a classical music devotee and after taking up the cello last year is looking for a music teacher in Ithaca.

Administration Reorganizes

As noted by the Council on Education of the AVMA in its review of the college's accreditation, there has been an amazing growth in the college over the past four years. The number of full-time employees increased thirty one percent to six hundred fifty six workers, supplemented by one hundred fifty part-time student employees; the college's budget soared seventy percent to almost \$19 million. Responding to this growth, Dean Melby reorganized his administrative staff last summer.

Robert Brown was appointed Assistant Dean for Administration to coordinate the services provided by the finance, personnel, student administration and financial aid offices. Marcia Sawyer replaced him as Director of Student Administration, Kathleen Telling was promoted to Director of Finance, and Rita Harris, who left Congressman Gary Lee's Washington office, was hired as Director of Personnel.

Associate Dean for Academic Programs Charles Rickard relocated to Schurman Hall and will act for the dean whenever he is away. John Semmler, Assistant Dean for Facilities and Research Administration, moved to the research tower to place him closer to the college's contract and grant recipients. Richard Rostowsky joined the staff as an Assistant Dean with administrative responsibility for the Teaching Hospital. As Assistant to the Dean for Instruction and Special Projects, Ann Marcham will work with the faculty on a major curriculum review and assume overall responsibility for publications and public relations.

Administrative staff support services were centralized, including the establishment of a Lanier word processing center. Essentially, the work of all other administrative personnel will continue unchanged.

Geoffrey Sharp Welcomed to Cornell to Form New Department of Pharmacology

The appointment of Dr. Geoffrey W. G. Sharp as Professor of Pharmacology and Chairman of the Department of Pharmacology at the college marks the establishment of a new department. The change in the college's program formalizes the intent to place greater emphasis on teaching and research in pharmacology.

Born and educated in England, Dr. Sharp received a bachelor's degree in pharmacy from the University of Nottingham and the doctor of science and the doctor of philosophy degrees in pharmacology from the University of London. While a lecturer in pharmacology at the University of Nottingham, he led physiological expeditions to Spitzbergen in the Arctic in 1957 and 1960 where he studied the effects of activity and light on man's circadian rhythms.

Dr. Sharp was attracted to the Harvard medical complex in 1962 because of its expertise in ion transport and renal physiology at that time. His particular interest was the effect of aldosterone on sodium transport using the toad bladder as a model



Geoffrey W. G. Sharp



New Antiviral Agents Studied at Feline Health Center

The discovery of antibiotics such as penicillin marked a tremendous breakthrough in medical knowledge and in our ability to overcome devastating bacterial diseases. Our knowledge and ability to control the other major class of infectious agents, viruses, is still in its infancy and lags far behind. The most common viral infection, also one of the most frustrating to control, is the common cold.

The Cornell Feline Health Center at the college maintains one of the five cooperative Antiviral Testing Groups to study and thoroughly test new antiviral compounds for the Antiviral Substances Program of the National Institutes of Health. Antiviral compounds are the counterpart for viruses of antibiotics. The Cornell program, under the leadership of the Feline Health Center's director, Dr. Fredric W. Scott, has begun a five-year, \$801,885 renewal contract with NIH after successfully completing an initial five-year, \$560,000 contract.

The contract calls for testing and evaluating the efficacy and toxicity, in laboratory and clinical situations, of some fifteen or twenty new antiviral substances. These compounds are selected by NIH from numerous samples submitted by pharmaceutical companies. Based on data from the last five years, about one in four compounds will be worth pursuing.

Once a compound has been selected by NIH, it is distributed to the five testing laboratories. The medical schools at the University of Utah and New York University examine viruses that directly infect humans, such as the herpes complex. The veterinary college at the University of Wisconsin works with swine; and the Delta Primate Research Regional Center in Louisiana utilizes lower primate model systems.

"The cat is an ideal animal to use as a model of human disease because representatives of all major virus categories exist in cats," said Dr. Scott. Also, considerable research has already been done on the viral diseases of cats and more is known about the neurophysiology of the cat than of any other animal except man.

A second aim of the contract is to perfect the feline model system. This will be a major benefit to cat owners and breeders since the researchers will be expending a great deal of effort testing substances that may have a therapeutic effect on some of the many respiratory viruses that afflict cats.

Antiviral agents differ from vaccines in that vaccines induce the body's immune response to form a longlasting or permanent immunity to a disease, a process that can take a few weeks. Antiviral agents, on the other hand, are immediately effective,

but produce no longlasting effect. Antiviral agents, in a variety of ways, often act directly on the cells containing the virus to interfere with the division and replication of the cell, preventing strong establishment of the disease.

Unlike bacteria, which are living entities, viruses are inert strands of nucleic acid surrounded by sheaths of protein. They are incapable of normal life processes, such as respiration, digestion or reproduction, and depend on living cells for their replication. This makes them difficult to combat since there is a fine threshold between killing the virus and killing the cell entirely. On the brighter side, Dr. Scott reports that "there has been considerable progress in the last few years in developing antiviral compounds which are effective specifically against enzymes relating to viral replication that are distinct from the enzymes involved in cell replication." When a virus invades a cell, these new compounds will block the replication of the virus. "This is good because there is no toxic effect on the cell itself," he said.

One of the more effective and promising antiviral agents being studied is interferon, a unique cellular protein naturally produced by the body. Unlike most antiviral agents which are chemically synthesized outside the body, interferon is a natural, biological substance that acts as a broad spectrum antiviral. According to Dr. Shaw Tsai, co-investigator of the project, who has

spent the past four years intensively investigating canine and feline interferon at Cornell, many problems frustrate the widespread use of interferon. "Although it is extremely potent, the body only produces a tiny amount of interferon," he said. "We can use artificial stimulants to induce greater production, but, unfortunately, these inducers can be highly toxic and work for only a short time." Rather than run the risks of over-stimulation, interferon produced outside the individual's body is administered.

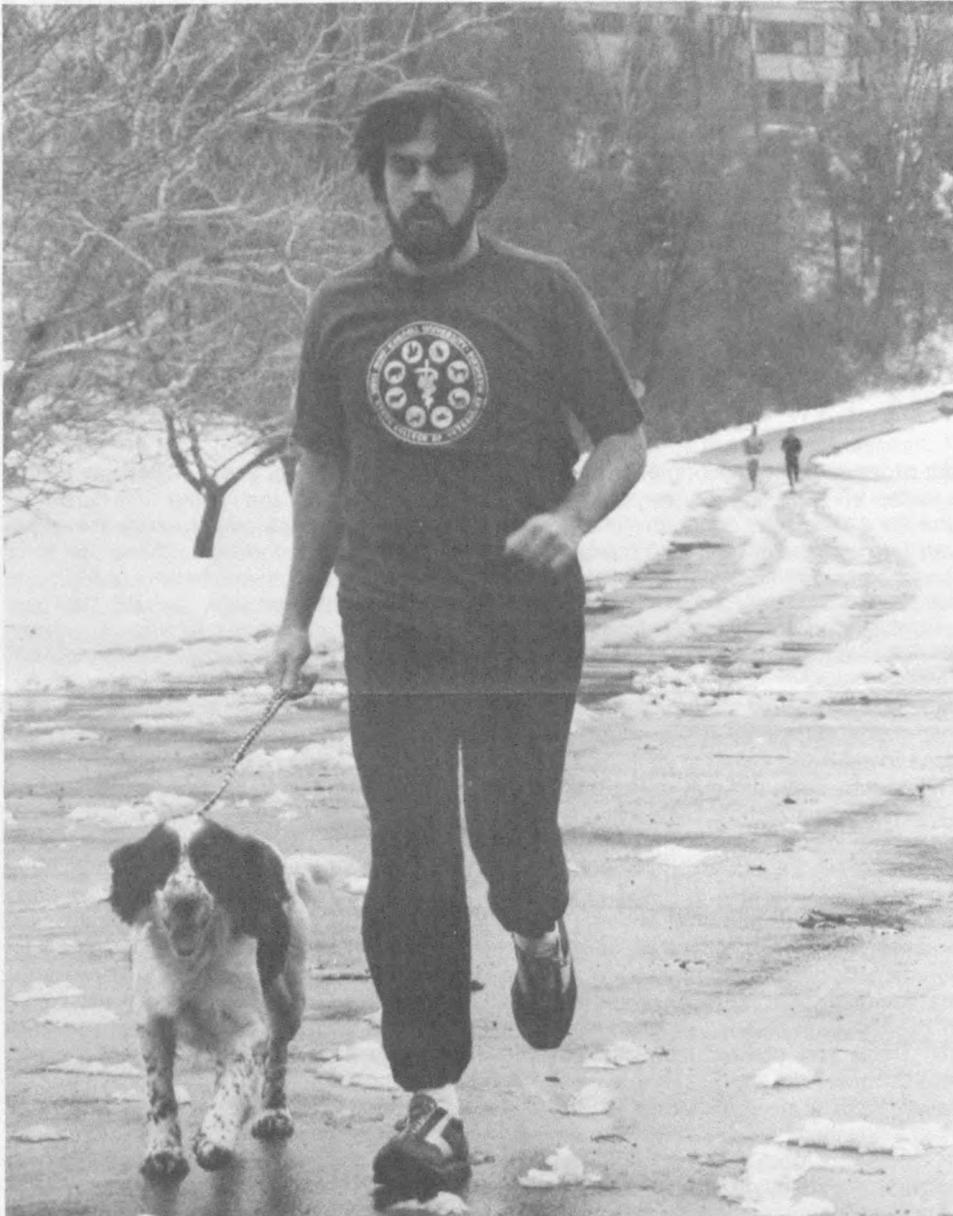
Interferon has recently gained worldwide fame as an anti-cancer agent. Early studies are showing interferon to be particularly powerful against certain cancers. "The importance of interferon as an anti-cancer therapy cannot be overstated," said Dr. Tsai. "The more we discover about it, the more important it becomes." The cat is an excellent interferon producer and feline interferon appears to be an encouraging candidate for both antiviral and anti-cancer studies.

If the success of the renewed contract with NIH is to be based on the success of the initial contract, within the next five years we should make substantial progress in the fight against disease causing viruses. With the great potential of interferon and other antiviral compounds, the future should see an easing of the tremendous stresses of traditional chemotherapy and a lessening of our seemingly endless bouts with viral illnesses.





It isn't always easy to help an alligator!



Jogging With Your Dog

By Daniel Simpson, '83

As we have become less active and overweight, so have our pets. If you are a jogger, try sharing this healthful pastime with your dog. As long as certain common sense precautions are considered, your dog should benefit as much as you do from a regular exercise program.

Running provides both behavioral and physiological benefits to you and your dog. Since most behavioral problems seen in dogs result from boredom spawned by inactivity, a regular running program can help alleviate many bad tendencies such as chewing furniture or urinating in the house. Your running dog should lead a healthier, longer life compared to a more sedentary canine who seldom walks more than a few hundred yards daily. The physically fit animal has a stronger heart and lungs, less body fat, and improved muscle tone. One look at a scampering puppy will tell you that running is a natural activity that dogs enjoy.

Care should be taken before a vigorous exercise program is undertaken if your dog is excessively overweight, has heart disease or diabetes, or has a kidney or liver malfunction. Puppies should never be exercised too earnestly, as their bones are not fully developed.

Once your dog is declared fit for running, consider the practical constraints placed on the canine running machine. Warm into each run slowly in order to allow the resting heart and lungs to become accustomed to the increased stress imposed by heavy exercise. Don't feed your dog immediately before running or allow him to drink too much water. Toward the end of each run, gradually slow your pace. When you arrive home, offer him a bowl of ice cubes, rather than a large quantity of water, for rehydration and cooling.

The greatest threat to your dog is overheating. Dogs do not sweat and are therefore severely affected by high air temperature. Immediately above black asphalt pavement the air temperature is particularly high, so extra care must be taken when running on these surfaces. The signs of overheating include excessive panting, depression, sloppy gait, and disorientation. At the first onset of these signs, your dog should be rested and his body cooled to prevent serious complications. Some dogs will refuse to continue beyond their threshold of exhaustion, but others will try to keep pace with their master at any cost. Most commonly, you will tire much more quickly than your dog.

It may be necessary to restrain your dog while running. Leashing your dog is required by law in most municipalities and also protects the dog from automobiles. A body harness is preferable to a neck leash and, with the lead secured around your waist, may be less annoying to your dog.

Regular exercise is as important to maintaining good health in our canine friends as it is to ourselves. The strengthening of the bond between dog and human resulting from sharing an emotionally stimulating and physically demanding endeavor is an additional reward. We owe it to our dogs to include them in our running. Next run, take him along!

Daniel Simpson is a third year veterinary student from Tiverton, Rhode Island. His jogging partner is Willy, a four year old English Springer Spaniel.

VETERINARY VIEWPOINTS

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