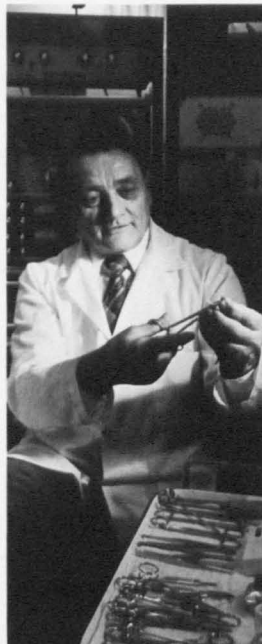
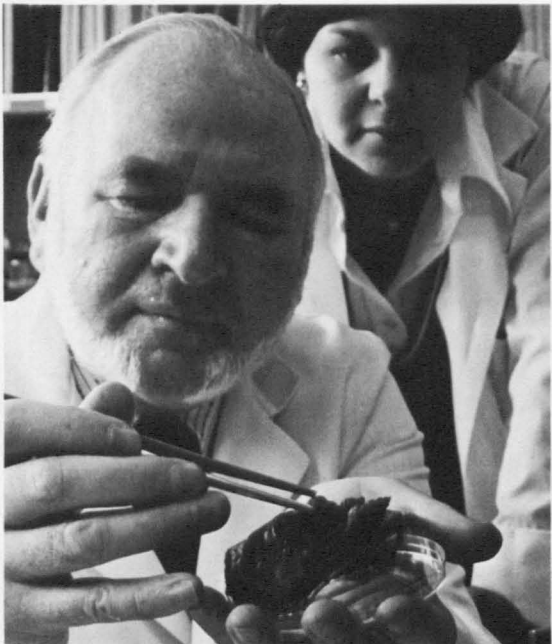


**New York State  
College of  
Veterinary Medicine**

**Cornell University**

**Annual Report  
1977-78**





# New York State College of Veterinary Medicine

A Statutory College of the State University of New York

A Component College of the State University of New York  
Health Sciences

Cornell University, Ithaca, New York

## **Eighty-first Annual Report**

July 1, 1977–June 30, 1978

Legislative document number 88

The New York State College of Veterinary Medicine at Cornell University in Ithaca, New York, is the primary health resource for the state's billion-dollar animal population.

The college's mission, mandated by the citizens of New York State through their legislators, is to promulgate animal and human health through education, research, and public service.

This report is a compendium of the activities, during the 1977–78 fiscal year, of the students, faculty, and staff who worked to accomplish this mission and thereby to justify the public trust.



**Office of the Dean**

New York State College of Veterinary Medicine  
A Statutory College of the State University at Cornell University

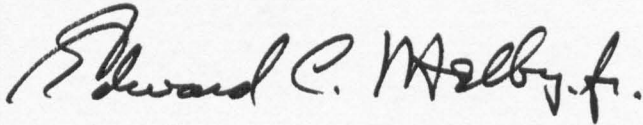
March 15, 1979

Frank H. T. Rhodes  
President  
Cornell University

Dear President Rhodes:

Pursuant to the requirements of the laws of New York State, I present herewith a report of the activities and the accomplishments of the faculty and staff of the New York State College of Veterinary Medicine for the year ending June 30, 1978, this being the eighty-first annual report of this college.

Respectfully submitted,



Edward C. Melby, Jr.  
Dean

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**Office of the President**

Cornell University

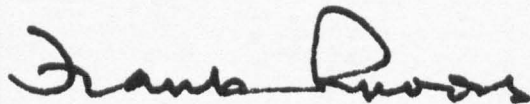
March 30, 1979

The Board of Trustees of Cornell University  
The Chancellor and Board of Trustees of the State University of New York  
The Governor of the State of New York

Ladies and Gentlemen:

In accordance with the requirements of Section 5711 of Article 115 of the State Education Law, I am pleased to submit, on behalf of Cornell University, the report of the New York State College of Veterinary Medicine for the year beginning July 1, 1977, and ending June 30, 1978.

Sincerely yours,



Frank H. T. Rhodes  
President

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**Office of the Chancellor**

State University of New York  
Albany, New York

April 5, 1979

The Board of Regents, the  
Governor, and the Legislature of the  
State of New York

Ladies and Gentlemen:

Pursuant to the law, the 1977-78 Annual Report of the New York State College of Veterinary Medicine at Cornell University is herewith submitted.

Very respectfully yours,



Clifton R. Wharton, Jr.  
Chancellor



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# Comments

Attention at the New York State College of Veterinary Medicine during 1977–78 was directed both inward and outward. External matters — such as an increased emphasis on public service and public affairs, intensified concern with broad questions relating to the near-crisis situation in veterinary medical education nationwide, and the overall challenges facing the profession as a result of new and changing directions within the field — demanded appraisal and action from faculty and staff at all levels, while internal affairs — especially those relating to the maintenance of excellence in the face of economic strains and the increasing complexities of veterinary medicine itself — presented a continuing challenge to ingenuity and efficiency.





Moderate growth and moderate change — but in diverse and wide-ranging areas — characterized the year. The scope of modern veterinary medicine continues to broaden as the complexity of society thrusts veterinarians into new roles in helping to improve the health and the economic and personal well-being of all citizens. Meeting these needs requires alertness and flexibility on the part of all members of the profession but perhaps most of all on those charged with training the practitioners, teachers, and researchers of the future.

The most dramatic change occurring within the college during 1977–78 was the establishment of the Department of Preventive Medicine. That this new department was authorized and funded at a time of severe belt tightening statewide reflects the deep concern at all levels throughout the nation with matters relating to preventive medicine. Recognition by the college of the need for broader training, more research, and increased service in all areas of preventive medicine, coupled with a health statement by Governor Carey naming preventive medicine as the key development needed in health care, provided the necessary impetus. When fully staffed and operational the new department, in conjunction with the Diagnostic Laboratory, will provide a capability for veterinary medicine that closely parallels that provided for human medicine by the Center for Disease Control in Atlanta.

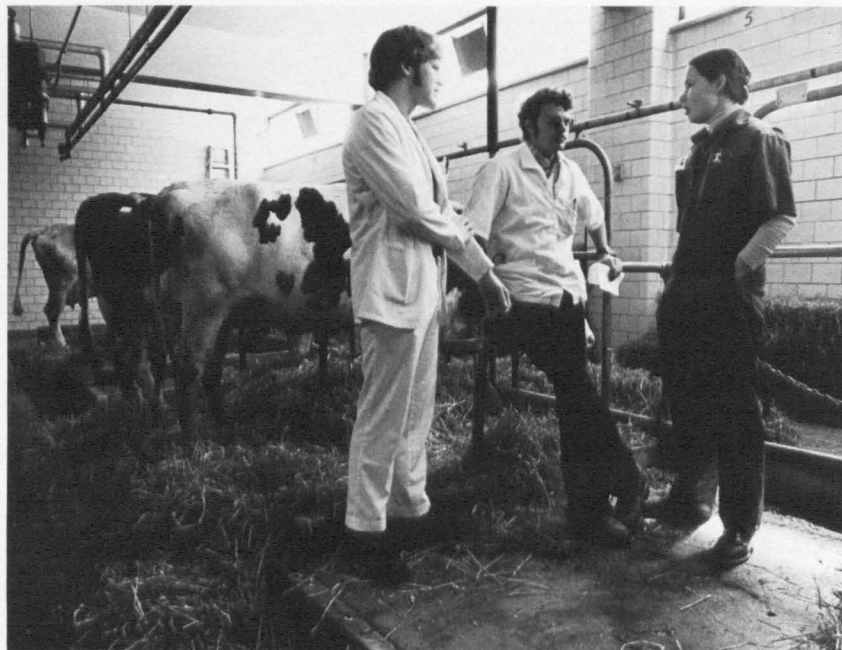
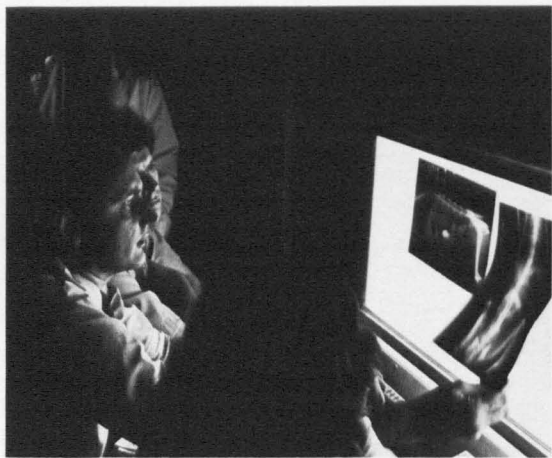
The reorganization of all clinical activities at the college into one administrative unit was accomplished with the establishment of the Department of Clinical Sciences, integrating all teaching, research, and public service of the former Departments of Small Animal Medicine and Surgery and Large Animal Medicine,



Obstetrics, and Surgery, along with the Teaching Hospital and its various clinics. The expected increase in efficiency and ability to serve the public has been realized and has made it possible to plan additional services, to be offered soon.

Funds allocated to extension and public service were increased by more than \$500,000 over the previous year's expenditure in order to implement new programs and reach more people. Research at the college was also bolstered, as outside support funds showed significant growth for the second straight year. Additional money was allocated for student aid (for professional-degree candidates) and to increase stipends for graduate students — a need that will grow, as costs continue to escalate, unless meaningful amounts of federal subsidies are forthcoming.

All in all the challenges are great, the problems many, and the need for answers acute, but the rewards and satisfactions appear sufficient to keep faculty, staff, students, alumni, and other supporters joined in their commitment to make even greater contributions in the years ahead.



# The Programs

Services of the Diagnostic Laboratory continued to expand as the new building became fully operational, and staffing was essentially completed during the year. Both the volume and the scope of testing have increased dramatically. In addition to providing support for the programs of the New York State Department of Agriculture and Markets by performing laboratory tests and monitoring disease outbreaks, the Diagnostic Laboratory aids practitioners throughout the Northeast with diagnostic problems requiring tests and consultations and provides laboratory support for health-care programs involving toxicology, zoonotic diseases, and clinical microbiology. The addition of more than two dozen kinds of tests needed to certify animals for export has been a significant factor in the growth of that industry in New York State.



The coordination of the activities of the Department of Preventive Medicine and the Diagnostic Laboratory makes it possible to integrate the two programs in a particularly efficient and effective manner, not only in terms of public service but in teaching and research programs as well. New courses in preventive medicine are being developed, as are special programs for training graduate students and residents.

The Office of Continuing Education at the college increased its offerings by about 50 percent, providing a total of 167 hours of instruction to 825 participants during the year. In addition, sixty-nine programs were lent in the first full year of operation of the office's autotutorial library. Many of these go to individual practitioners for home study, but some are used in large veterinary hospitals as the basis for seminars in which all staff members participate. Six issues of *Veterinary Topics*, the newsletter for veterinarians, were published by the office during the year, and other articles dealing with various topics of a timely nature concerning animal health were sent to extension agents for use in their counties.

Nine thousand visitors from as far away as Ohio and parts of Canada attended the annual student-run Open House in the spring.

Response by alumni and other friends to requests for support through gifts and pledges to the Campaign for Veterinary Medicine was encouraging. During the year nearly \$375,000 in gifts and pledges were received from more than three hundred donors. More than two hundred fifty class representatives and assistant representatives participated in the solicitation. Additional efforts were made to strengthen the

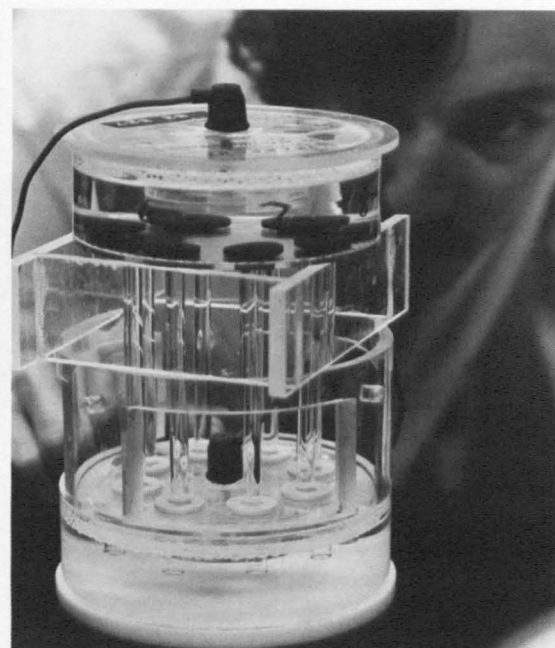
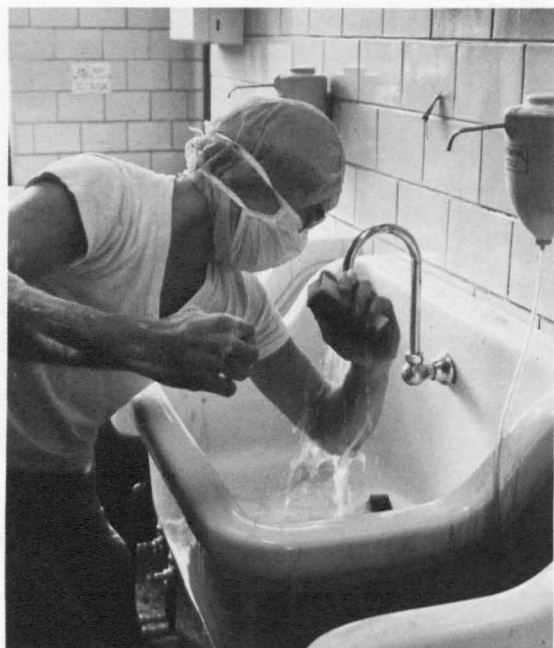
dialogue between the college and alumni, as well as other interested groups, through campus meetings, mailings, and individual communication.

**Table 1**  
**Continuing Education, 1977-78**

<i>Program</i>	<i>Participants</i>	<i>Hours</i>
Anesthesia and Intensive Care	7	16
Anesthesiology for Technicians	59	16
Annual Conference for Veterinarians	453	24
Bovine Abdominal Surgery Workshop	15	16
Equine Anesthesiology Workshop	12	16
Feline Symposium	175	7
Pathology Short Course	25	40
Radiology Workshop	12	8
Regional Mastitis Seminar	51	8
Lendings, autotutorial programs: 69		

**D**uring a period of tightening economic conditions, reflected in decreased case loads for many practitioners, the various clinics of the Teaching Hospital experienced a modest increase in patient volume. The normal variety of veterinary services sought by the local population, plus the more unusual and difficult cases that often result from referrals, provide the needed diversity for sound clinical training and opportunities for unusual experiences.

Plans were recently worked out with Cornell's Laboratory of Ornithology for implementing a cooperative program that began unofficially several years ago and that has continued to arouse interest among staff and students. The





effort involves treatment at the Teaching Hospital of injured wild birds referred by the Laboratory of Ornithology. Most injuries are the result either of flying accidents (usually involving young birds) such as collision with a moving automobile or of gunshot wounds. In one case a bird flew down a pipe into a stove and caught fire. After treatment the bird recovered and was returned to the wild. Survival rate for all cases treated to date is 63 percent.

The program was developed and is supervised by Dr. Douglas M. MacCoy, assistant professor of small animal medicine. Seven students have volunteered to work with him in handling the case load. Rounds are held once a week and are proving to have significant educational value. Emphasis is on developing techniques for dealing successfully with injured birds, skills that are particularly important when the victims are members of rare or endangered species. One room in the small animal hospital is being equipped to provide needed facilities for handling the animals.

Aquavet '78, the second session of the program in aquatic veterinary medicine that is sponsored jointly by Cornell's College of Veterinary Medicine and the School of Veterinary Medicine at the University of Pennsylvania and funded by the New York Sea Grant Institute, was held in the spring and summer of 1978 at Woods Hole, Massachusetts. Because of the favorable response to Aquavet '77 and the resulting increase in interest and applications, the program was expanded to include students at veterinary colleges other than the sponsoring institutions, as well as some practitioners. A total of thirty-one participants, representing nine schools of veterinary medicine and home

states from Maine to Hawaii, completed the four-week basic course. Four participants stayed in Woods Hole for eight weeks of research at the end of the basic course.



During the year compact agreements were renewed with six New England states and with Delaware and New Jersey. The first to be effected on a multiyear basis was a five-year contract signed with New Jersey. An agreement with Maryland is expected to be worked out in the upcoming year, and it is hoped that multiyear contracts can be negotiated with other cooperating states.

The financial burden on students in the professional-degree program has intensified with rising costs and shrinking sources of financial aid, prompting an increased commitment of staff in student administration to deal with the problem. The demands of the

**Table 2**  
**Clinical and Diagnostic Accessions, 1977**

	Horses	Cattle	Sheep & Goats	Swine	Dogs	Cats	Poultry	Others	Total
Medical and Surgical	1,527	561	248	37	7,153	3,088		407	13,021
Large-Animal Outpatient	2,542	35,177	537	810					39,066
Clinical Pathology Laboratory	4,231	3,725	455	89	8,436	1,820		593	19,349*
Mastitis Control Program		203,564							203,564
Necropsy Service	266	730	128	224	544	496		336	2,724
Parasitology Laboratory	168	173	73	19	1,228	447	4	29	2,141
Poultry Disease Laboratories							12,742	6,914	19,656
Laboratory Animal Diagnostic									
Laboratory	15				15	814		722	1,566
Aquatic Animal Diagnostic Laboratory								9,192	9,192
Totals	8,749	243,930	1,441	1,179	17,376	6,665	12,746	18,193	310,279

\*There were 174,353 laboratory tests performed on 19,349 animals.

D.V.M. curriculum and other stresses have also pointed up the need for additional counseling services, academic and personal, and student administration has responded by expanding that part of their program.

The Flower Veterinary Library continued to experience a high level of use, reflected in the statistics for the year. While maintaining an eighty-seven-hour schedule per week, the library staff expanded services in two important ways. One was the response to reference queries, which showed a 70 percent increase over the previous year, and the other was the introduction of a computer-assisted search service (COMPASS). This service is available to veterinary library users through Mann Library (on the College of Agriculture and Life Sciences campus) and is operated on a fee-for-use basis; fees begin at \$5 and are scaled upward, depending on the scope and complexity of the topic. Library personnel assist students and faculty in using the service, which provides accurate, comprehensive information from a vast array of sources about available literature on almost any topic, at enormous savings in time and effort compared with manual search procedures.

**S**tudies that relate directly to human health figured strongly in college research efforts during the year. For example, a study by Raymond H. Cypess, professor of veterinary epidemiology and chairman of the Department of Preventive Medicine, and Lawrence T. Glickman, assistant professor of veterinary epidemiology, dealt with visceral larvae migrans (VLM), a parasitic disease in humans that is acquired from dogs and their excreta. Children are the frequent sufferers and when infected

**Table 3**  
**Library Use, 1977-78**

		<i>Total</i>
On campus		36,918
Reserve books (in-library use)	12,909	
Books lent (home use)	16,784	
Photocopy items provided (in lieu of loans)	7,225	
Interlibrary		1,091
Books lent	69	
Photocopy items provided	507	
Books borrowed	55	
Photocopy items received	460	

with VLM may develop growths in the eye that appear similar to retinoblastoma. Since retinoblastoma may require surgical removal of the eye whereas VLM can be medically treated, it is extremely important that the two conditions be distinguished. Drs. Cypess and Glickman have developed a diagnostic procedure to determine whether the condition is caused by VLM; this procedure has been adopted for use by the Center for Disease Control. The research team is also using the test to determine the distribution of VLM in the human population and to study the factors influencing susceptibility.

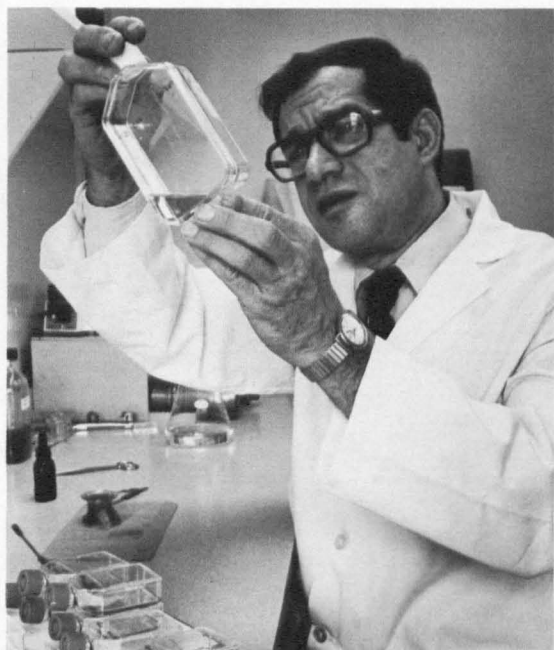
An ongoing investigation of coonhound paralysis is another study involving an animal model of human disease. Begun by John F. Cummings, professor of veterinary anatomy, it later became a cooperative effort, with Alexander deLahunta, professor of veterinary anatomy and director of the Teaching Hospital;

**Table 4**  
**Library Holdings, 1977-78**

	<i>Total</i>
Bound volumes	65,863
At beginning of year	64,497
Acquisitions	1,385
Less withdrawals	19
Periodicals and annuals	1,105

**Table 5**  
**Degrees Awarded, 1977-78**

D.V.M. (with Distinction: 4)	71
M.S.	7
Ph.D.	5

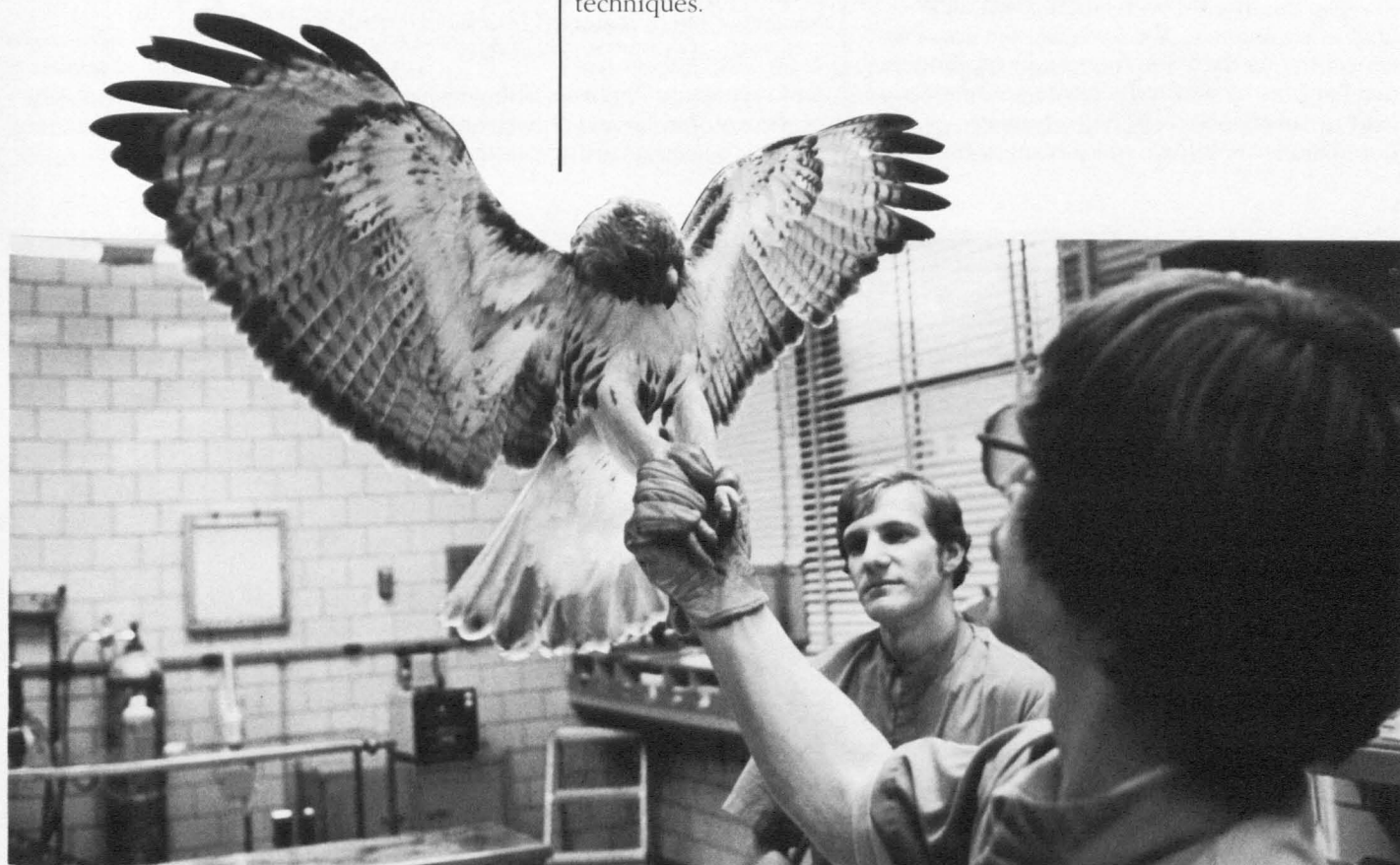


**Table 6**  
**Laboratory Animals Housed and**  
**Cared for during 1977 by the Division**  
**of Laboratory Animal Medicine and**  
**Services**

	<i>Daily Average</i>	<i>Annual Total</i>
Calves	22	27
Cats (SPF colony)	100	547
Cats (other)	277	564
Chicks	503	5,931
Dogs	228	567
Fish	40	140
Frogs	120	132
Goats	19	23
Guinea pigs	614	1,471
Hamsters	8	20
Heifers	6	14
Mice	855	1,495
Nonhuman primates	11	11
Rabbits	166	424
Rats	332	895
Sheep	8	10
Raccoons	1	2
Turtles		46
Flying squirrels	18	18
Totals	3,328	12,337

Dorothy F. Holmes, research associate in veterinary microbiology; and Ronald D. Schultz, associate professor of veterinary immunology, working with Dr. Cummings. The disease in coonhounds, caused by an unknown pathogen, has been shown by Dr. Holmes to be transmitted, as expected, in the saliva of raccoons. Further effort is being directed toward identifying the pathogen and the factors that contribute to a dog's susceptibility. The disease, furthermore, showed many similarities to the Guillain-Barré (G-B) syndrome in humans, a paralysis that usually occurs in the wake of a viral disease such as influenza and that occurred in some people who received the swine flu vaccine. Recent findings by the college research team provide further evidence that coonhound paralysis is indeed a valid model for the G-B syndrome, making the current study significant in terms of both canine and human health.

Guinea pigs are the subjects in a study of colon cancer that is seen as a vehicle for increasing understanding of carcinomas in all species, including humans. Preliminary work by Gary L. Cockerell, assistant professor of veterinary pathology, has included the testing of a potential vaccine preparation on healthy guinea pigs and the development of improved techniques for surgical removal of tumors. A specially designed containment facility has been built to house the next stage of work, involving induction of carcinomas in order to test the efficacy of the chemical and surgical treatment techniques.





A tumor study with a different approach is being conducted by Julius Fabricant, professor of avian diseases. He observed that experimental chickens that were free of all known tumor-causing viruses did not develop tumors until they were relatively aged — more than two years old. Even more interesting was the observation that the tumor patterns when they did develop varied markedly among the four genetic strains. One strain remained almost completely free of tumors, one showed a high incidence of benign tumors, and the other two developed high rates of malignancies (adenocarcinomas). These observations indicate that there is a relationship between the incidence of tumors (both benign and malignant) and the genetic makeup of the chickens. The study is being expanded in an effort to determine whether those genetic differences involve the immune mechanisms necessary for body defenses against cancer cells in animals and in humans.

Continuing efforts to further our knowledge about arteriosclerosis are being made by a team of investigators headed by Catherine G. Fabricant, senior research associate in veterinary microbiology. Arteriosclerosis strikingly similar to that found in humans has been induced by a herpesvirus in experimental chickens that were free of all known pathogenic microbes. The disease was induced in animals infected with the herpesvirus whether or not their diets were supplemented with cholesterol; a control group of uninfected animals did not develop the disease even when given diets high in cholesterol. The investigators are now concentrating their attention on unraveling the mechanisms by which the herpesvirus infection leads to arteriosclerosis. Since human populations are known to carry up to five

similar herpesviruses as persistent infections, these studies may have an important bearing on human arteriosclerosis.

Another project adding vital information on physiological processes is that conducted by Robert A. Corradino, senior research associate in physical biology, dealing with the absorption of calcium by the intestine. Techniques have been developed for maintaining embryonic chick intestine in culture dishes without loss of structural and functional integrity and permitting careful, controlled, and easy observation. The study has provided direct evidence of a causal link between the concentration of a specific calcium-binding protein in the intestine and the ability of the organ to absorb calcium. Vitamin D, known for some time to be involved in calcium absorption, has been shown to play an important part in the production of the calcium-binding protein. Work is continuing in an effort to explain more definitively the action of vitamin D, as well as hormones, metal ions, drugs, and other elements, on the biosynthesis and regulation of the calcium-binding protein.

A study carried out by S. A. Haider, senior research associate in avian and aquatic animal medicine at the duck disease laboratory on Long Island, and Bruce W. Calnek, professor of avian and aquatic animal medicine, has opened the way to development of a new vaccine for a virus disease of ducks. The two investigators have shown that the disease (duck hepatitis III), previously considered a variant of duck virus hepatitis (DVH), is caused by a picornavirus that is unrelated to the DVH pathogen.

An investigation by Louis Leibovitz, associate professor of avian and aquatic animal medicine, has led to some possible practical applications



in oyster and clam hatcheries to reduce high levels of mortality from vibriosis among the larvae. Although *Vibrio* species were isolated throughout the growing season, the study showed that they were the dominant bacterial population in incoming bay water during a single peak period each year. Outbreaks of vibriosis that caused high mortality among the clam and oyster larvae were first noted during the periods of *Vibrio* abundance in the incoming bay water, but the disease persisted in the hatchery beyond that time. Further study is under way to determine means for controlling this problem and lessening the losses that result.

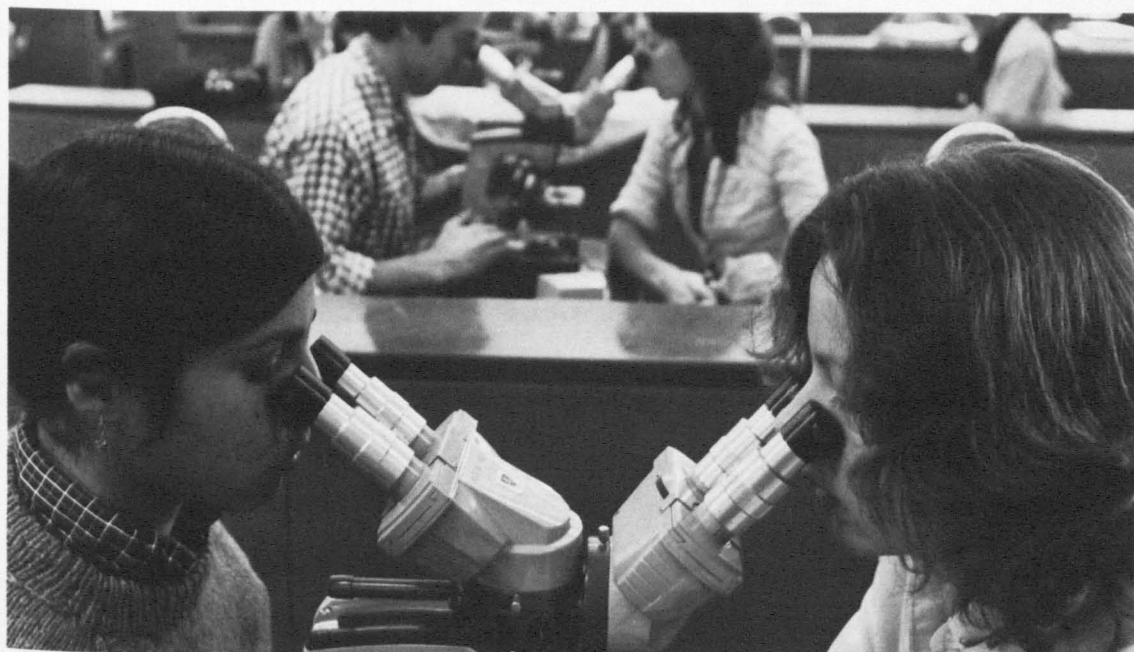
Research aimed in one direction often reveals information that leads into other areas. One such example is the work being done by Bruce W. Calnek, professor of avian and aquatic animal medicine, and Karel A. Schat, senior research associate in the same department, on mechanisms of protection against Marek's Disease in chickens. Their work led to the identification of a new strain of Marek's Disease virus that apparently is nononcogenic but that does have the ability to protect birds against challenge with the virulent virus. This makes development for commercial use of an alternative vaccine based on the new virus strain a practical possibility.

Meat and dairy producers, as well as veterinary researchers, have long hoped for a way to control the estrous cycle of cattle, sheep, and swine. Not only would such a capability be a boon to producers — making it possible to inseminate groups of animals at the same, and predictable, time — but it would be of considerable help in improving the rates of genetic gain, especially in beef cattle. Genetic progress has been slow in certain kinds of these



animals, at least partly because without the ability to predetermine estrus, artificial insemination has not been feasible. Experiments to control estrous cycles have been under way at many institutions for more than a decade, and some have had limited success. A major problem has been that too often, a reduction in conception rates resulted. New techniques developed by William Hansel, the Liberty Hyde Bailey Professor of Animal Physiology, have resulted not only in improved synchronization of estrus but in heightened conception rates as well. Several of these techniques are now ready for use with beef cattle and dairy heifers.

A potential breakthrough in the battle against winter dysentery — a disease of dairy cattle that is responsible for significant financial losses in the Northeast and throughout the country —



may have occurred in the course of continuing studies of the disease by Fredric W. Scott, professor of veterinary microbiology. Problems in identifying the cause of the disease have long hampered the development of a technique to control it. Recently, however, virus particles that may prove to be the pathogen have been isolated and visualized by electron microscopy.

Considerable progress in developing an effective treatment for horses and ponies infected with *Strongylus vulgaris* has resulted from research conducted recently by Victor T. Rendano, assistant professor of radiology, and Jay R. Georgi, professor of veterinary parasitology. Dr. Rendano's work has made use of angiography — a procedure whereby material is injected into blood vessels that allows x-ray pictures to be taken to reveal changes without endangering the life of the animal. This approach makes it possible for researchers to observe the development of lesions in the blood vessels of infected animals and the degree and progress of healing after treatment with larvicidal compounds. At least one drug has thus been shown to be effective against the larvae, and further work is planned to determine safe, effective dosages as well as to investigate other possible therapeutics.

A boost has been given to programs in equine research at the college through legislative action. In May 1978 the New York State Legislature passed an amendment to the pari-mutuel law, setting aside certain monies to form the Harry M. Zweig Memorial Fund for Equine Research in honor of Dr. Zweig, a long-time friend of the college and member of the Equine Advisory Council. Dr. Zweig's death the previous year saddened everyone who had known him and who cared about horses and

the equine industries of the state. The fund will be used to support research projects at the college selected by the memorial fund committee for their potential to benefit the equine industry of the state. The action was made retroactive to January 1, 1978, and is expected to provide an amount in excess of \$200,000 the first year.

The Bovine Health Research Center published a 162-page book during the year containing a survey of bovine health problems and their significance; descriptions of the various programs in bovine research at the college; and the goals, facilities, and plans for expanding research in these areas.

The processes by which research projects are begun, continued, and completed depend, largely and inevitably, on the funds that are available. Some projects are begun, and indeed some are completed, with funds from department budgets. In order to finance many of the more ambitious and far-reaching programs, however, grants must be sought from agencies outside the college. If a grant terminates before a project is completed, funds must be sought to continue the work from the same or another agency. Obtaining a new grant, therefore, does not necessarily mean that a new project is begun; the new funds may allow additional or expanded work to be undertaken or may provide the needed money to follow through on a promising study.

New financial support received from sources outside the college during the year is summarized in Table 7. Because some grants are made for a period of more than one year, the table shows the amount designated for use on an annual basis and the additional money provided for subsequent years.





**Table 7**  
**Summary of Grants and Contracts Awarded during 1977-78**

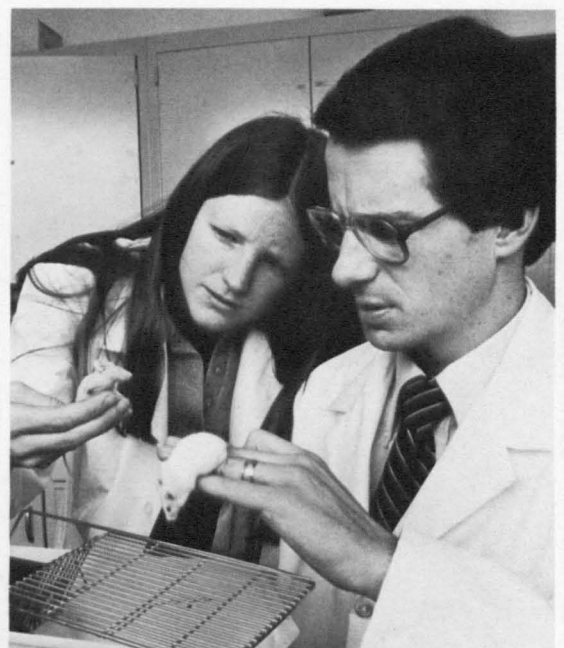
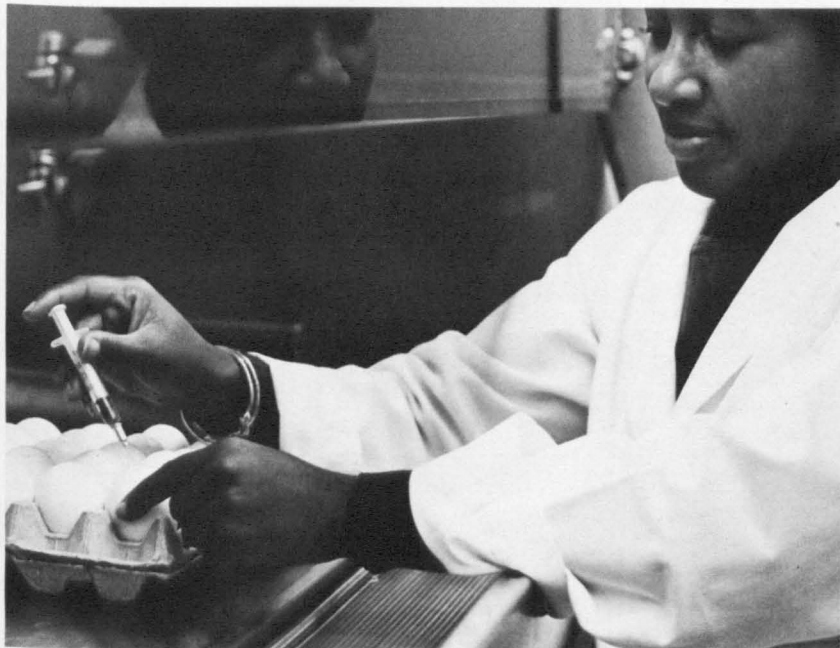
<b>Recipient</b>	<i>1977-78</i>	<i>Subsequent Years</i>	<i>Total</i>
<i>Administration</i>	\$ 370,040	\$ 30,000	\$ 400,040
<i>Avian and Aquatic Animal Medicine</i>			
Poultry Disease Laboratory	147,431	—	147,431
Other	<u>145,961</u>	<u>236,534</u>	<u>382,495</u>
Total	\$ 293,392	\$ 236,534	\$ 529,926
<i>Diagnostic Laboratory</i>			
Agriculture and Markets Contract	523,753	—	523,753
Drug Testing and Research Program	<u>1,409,927</u>	<u>—</u>	<u>1,409,927</u>
Total	\$1,933,680	—	\$1,933,680
<i>Preventive Medicine</i>	116,376	129,293	245,669
<i>Clinical Sciences</i>			
Mastitis Control Program	270,440	—	270,440
Other	<u>92,167</u>	<u>128,167</u>	<u>220,334</u>
Total	\$ 362,607	\$ 128,167	\$ 490,774
<i>Microbiology</i>	432,001	122,820	554,821
<i>Baker Institute for Animal Health (Microbiology)</i>	293,907	183,106	477,013
<i>Pathology</i>	411,166	259,231	670,397
<i>Physical Biology / Section of Physiology</i>	456,683	236,798	693,481
<i>Physiology, Biochemistry, and Pharmacology</i>	<u>265,891</u>	<u>150,282</u>	<u>416,173</u>
Grand total	\$4,935,743	\$1,476,231	\$6,411,974





# The People

The opening of additional colleges of veterinary medicine throughout the nation in recent years and the increase in class size at many institutions have had no negative effects to date on the number or quality of students seeking admission to the professional-degree program at the college. In fact, the total number of applicants rose somewhat, bringing the ratio of applicants to available spaces to nearly eleven to one. The number of applicants and their high qualifications — 90 percent had completed four or more years of college — combined to intensify the demands on faculty and staff charged with making admission decisions. The two-way pressure — striving for the utmost in fairness to applicants while assuring the college of the best available students — makes the selection process a rewarding, but difficult, task. The percentage of women accepted (49 percent for the class of 1982) remained fairly constant and closely paralleled the percentage of women applicants.





Tables 8–12 summarize some of the characteristics of the student community.

The continuing effort to attract more qualified students to the graduate program in veterinary medicine received a significant boost with the increase in stipends offered, beginning in the fall of 1977. The annual stipend of \$11,000 to \$15,500 now provided for those with D.V.M. or other professional medical degrees brings the college more nearly in line with other colleges of veterinary medicine and makes graduate study a more practical possibility, especially for potential students who already hold the D.V.M. degree. The results have been rewarding—the percentage of applicants with D.V.M. degrees from American colleges and schools increased markedly, and a correspondingly larger percentage of students accepted were from that group. Salaries offered to residents and interns were also increased somewhat, and that too was reflected in larger numbers of highly qualified applicants.

**Table 8**  
**Predoctoral Student Enrollment,**  
**1977–78**

	<i>Total</i>
Candidates for the D.V.M. degree	299
Class of 1978	71
Class of 1979	72
Class of 1980	76
Class of 1981	80
Cornell undergraduates taking courses in the college (full-time equivalents)	79

**Table 9**  
**Admission Summary, Class of 1982**

<i>Area</i>	<i>Applicants</i>	<i>Interviewed</i>	<i>Accepted</i>
New York	479	184	58
Compact states	253	70	20
Other states	132	19	2
Total	864	273	80

**Table 10**  
**Qualifications of Accepted Applicants, Class of 1982**

	<i>Number of Applicants</i>	<i>Percentage of Class</i>
<i>Amount of preveterinary preparation:</i>		
Fewer than four years of college	8	10
Four years of college	56	70
More than four years (grad-level)	16	20
<i>Institution previously attended:</i>		
Cornell University	34	42
Other	46	58
<i>Field of preparatory study:</i>		
Animal science (or related)	32	40
Biological sciences (or related)	29	36
Preveterinary	4	5
Other	15	19
<i>Kind of preparatory animal practice:</i>		
Large animal only	12	15
Small animal only	22	27
Both	46	58



**Table 11**  
**Geographic Distribution of Accepted Applicants, Class of 1982**

<i>Applicant's Legal Residence</i>	<i>Accepted</i>
New York	58
Colorado	1
Connecticut	5
Delaware	1
Maine	1
Massachusetts	5
New Jersey	7
Pennsylvania	1
Vermont	1

**Table 12**  
**Graduate Student Enrollment, Field of Veterinary Medicine, 1977 - 78**

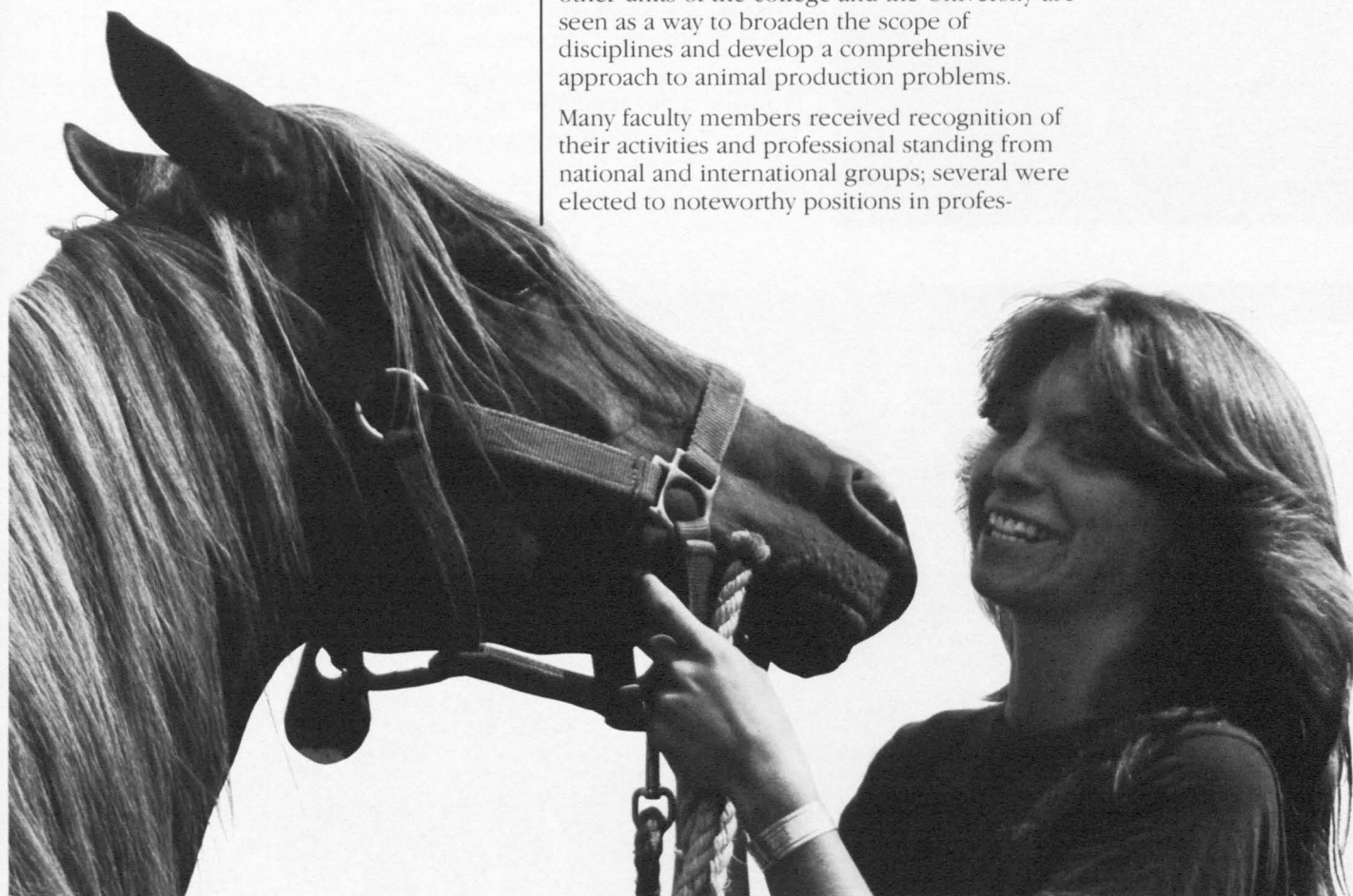
Candidates for the Ph.D. degree	39
Candidates for the M.S. degree	19
Candidates for the D.V.Sc. degree	1
Nondegree candidates	1
Professional-degree students in the combined D.V.M./M.S. program	5
Professional-degree students in the combined D.V.M./Ph.D. program	2

**T**hree department chairmen were appointed during the year. After an extensive search William Hansel was named chairman of the Department of Physical Biology/Section of Physiology, an administrative unit formed last year in conjunction with the Cornell Division of Biological Sciences. Formerly a professor of animal science in the New York State College of Agriculture and Life Sciences, Dr. Hansel is internationally recognized for his work in reproductive physiology and brings to the college a new dimension of expertise in physiology and endocrinology.

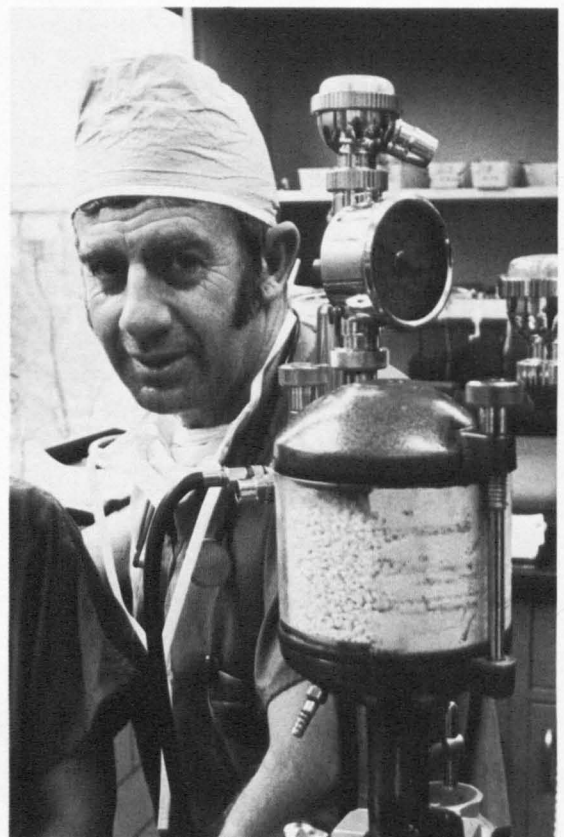
Alexander deLahunta, professor of veterinary anatomy and director of the Teaching Hospital at the college, was appointed chairman of the Department of Clinical Sciences, created when the departments of large animal and small animal medicine were combined.

Raymond H. Cypess, professor of microbiology and epidemiology and director of the Diagnostic Laboratory, was named to head the new Department of Preventive Medicine. Much effort has been spent recruiting staff for the department. The highly specialized training required limits the pool of potential candidates; however, several posts have been filled, and progress has been made toward finding individuals for the remaining positions. Joint appointments between the department and other units of the college and the University are seen as a way to broaden the scope of disciplines and develop a comprehensive approach to animal production problems.

Many faculty members received recognition of their activities and professional standing from national and international groups; several were elected to noteworthy positions in profes-



sional organizations. In July 1977 George C. Poppensiek, the James Law Professor of Comparative Medicine and former dean of the college, was awarded the Twelfth International Veterinary Congress Prize in recognition of his distinguished service to veterinary medical science. Alexander deLahunta, chairman of the Department of Clinical Sciences and director of the Teaching Hospital, received the Ralston Purina Small Animal Research Award for his work on degenerative brain disease in dogs.



## Faculty and Staff Changes

### New Appointments

John D. Baird, *Visiting Lecturer*  
 David B. Brunson, *Assistant Professor*  
 Patrick W. Concannon, *Senior Research Associate*  
 Arthur D. Craig, *Research Associate*  
 Nadia F. Cymbaluk, *Visiting Fellow*  
 Francis J. Drazak, *Research Associate*  
 Joanne E. Fortune, *Research Associate*  
 Lawrence T. Glickman, *Assistant Professor; Head, Division of Epidemiology, Diagnostic Laboratory*  
 Robert B. Grieve, *Postdoctoral Associate*  
 William Hansel, *Professor; Chairman, Department of Physical Biology/Section of Physiology*  
 Bogumil W. Hetnarski, *Senior Research Associate*  
 Katsuya Hirai, *Visiting Associate Professor*  
 Jeong H. Im, *Research Associate*  
 Richard H. Jacobson, *Assistant Professor*  
 David C. Kradel, *Associate Professor; Assistant Director, Diagnostic Laboratory*  
 Jean E. Kratzing, *Visiting Lecturer*  
 Ellis R. Loew, *Assistant Professor* (joint appointment)  
 George J. Milanowski, *Research Associate*  
 Donald F. Smith, *Assistant Professor*  
 Lee H. Southwick, *Extension Associate*  
 Virginia Utermohlen-Lovelace, *Assistant Professor* (joint appointment)  
 Tilahun Yilma, *Research Associate*





## Promotions and Title Changes

Harvey J. Armbrecht, *Postdoctoral Associate* (from Postdoctoral Fellow)

Dennis N. Aron, *Assistant Professor* (from Resident)

Lawrence M. Ballas, *Instructor* (from Graduate Research Assistant)

Gregory A. Chibuzo, *Visiting Lecturer* (from Teaching Assistant)

Barry J. Cooper, *Assistant Professor* (from Lecturer)

Raymond H. Cypess, *Professor; Director, Diagnostic Laboratory; and Chairman, Department of Preventive Medicine* (from Professor; Director, Diagnostic Laboratory)

Alexander deLahunta, *Professor; Director, Teaching Hospital; and Chairman, Department of Clinical Sciences* (from Professor; Director, Teaching Hospital)

Douglas E. Evans, *Assistant Professor* (from Instructor)

Francis H. Fox, *Professor* (from Professor; Chairman, Department of Large Animal Medicine, Obstetrics, and Surgery)

Wanda M. Hascheck, *Postdoctoral Associate* (from Resident)

John M. King, *Professor* (from Associate Professor)

Robert W. Kirk, *Professor* (from Professor; Chairman, Department of Small Animal Medicine and Surgery)

Alvin F. Sellers, *Professor* (from Professor; Associate Dean for Research)

Glen L. Spaulding, *Assistant Professor* (from Visiting Assistant Professor)

## Completed Terms

John D. Baird, *Visiting Lecturer*

Lawrence M. Ballas, *Instructor*

David A. Bemis, *Postdoctoral Associate*

Christian L. Gries, *Senior Research Associate*

Wanda M. Hascheck, *Postdoctoral Associate*

Bogumil W. Hetnarski, *Senior Research Associate*

Sung I. Koo, *Research Associate*

Jean E. Kratzing, *Visiting Lecturer*

James M. Maribei, *Postdoctoral Fellow*

Deborah J. Middleton, *Visiting Fellow*

Michael Schoenbaum, *Visiting Professor*

Per Slagsvold, *Visiting Professor*

Jeffrey S. Smith, *Visiting Lecturer*

Antonio F. M. Terrinha, *Visiting Associate Professor*

A. David Watson, *Visiting Assistant Professor*

Joram Weisman, *Visiting Research Associate*

Ziva Weisman, *Research Associate*

## Resignations

Edwin J. Andrews, *Associate Professor*

Harvey J. Armbrecht, *Postdoctoral Associate*

Barrett S. Cowen, *Research Associate*

Arthur D. Craig, *Research Associate*

Douchka Herschel, *Research Associate*

Thomas W. Jungi, *Postdoctoral Associate*

Robert F. Kahrs, *Professor*

Alan D. McCauley, *Assistant Professor*

John B. Tasker, *Professor*

Uriel Yarkoni, *Postdoctoral Associate*

**Table 13**  
**Interns and Residents, 1977 – 78**

Interns	16
Residents	6



## Cornell University

### Administration

Frank H. T. Rhodes, *President of the University*

Dale R. Corson, *Chancellor of the University*

David C. Knapp, *University Provost*

Theodore Cooper, *Provost for Medical Affairs*

William G. Herbster, *Senior Vice President*

Mark Barlow, Jr., *Vice Provost*

Constance E. Cook, *Vice President for Land Grant Affairs*

W. Donald Cooke, *Vice President for Research*

June M. Fessenden-Raden, *Vice Provost*

William D. Gurowitz, *Vice President for Campus Affairs*

Robert T. Horn, *Treasurer, Vice President, and Chief Investment Officer*

Samuel A. Lawrence, *Vice President for Financial and Planning Services*

Robert M. Matyas, *Vice President for Facilities and Business Operations*

Richard M. Ramin, *Vice President for Public Affairs*

Byron W. Saunders, *Dean of the University Faculty*

Neal R. Stamp, *University Counsel and Secretary of the Corporation*

### Trustees

Robert W. Purcell, *Chairman*

Jansen Noyes, Jr., *Vice Chairman*

Robert H. Abrams

Morton Adams

Gordon M. Ambach\*†

Warren M. Anderson\*

J. Roger Barber\*

Helen M. Berg

Ardella Blandford-Wilson

Dana C. Brooks

Hugh L. Carey\*

Mary T. Christian

Hays Clark

Charlotte W. Conable

Raymond R. Corbett

Ezra Cornell

Robert A. Cowie

David J. Culbertson

John S. Dyson\*

Robert G. Engel

Earl R. Flansburgh

Roland A. Foulkes

C. K. Poe Fratt

Neil V. Getnick

Frances Giaccio-Spivak

William E. Gordon

Robert S. Hatfield

Donald F. Holcomb

G. Michael Hostage

Samuel C. Johnson

Robert J. Kane

Joseph P. King

Austin H. Kiplinger

Mary Anne Krupsak\*

Charles W. Lake, Jr.

Sol M. Linowitz

Robert J. McDonald

Carol B. Meeks

E. Howard Molisani

Norman Penney

David Pollak

Frank H. T. Rhodes\*

Charles H. Riley\*

William R. Robertson

Martin D. Robinson

Philip Ross\*

Keith Said

Harvey E. Sampson

Nelson Schaenen, Jr.

Jean Way Schoonover

Jacob Sheinkman

Adrian M. Srb

Stanley Steingut\*

Charles T. Stewart

Patricia Carry Stewart

Charles E. Treman, Jr.

Richard F. Tucker

Stephen H. Weiss

Bruce Widger

Judith T. Younger

\**ex officio*

†*inactive*



# State University of New York

## Administration

Clifton R. Wharton, Jr., *Chancellor*

Loren Baritz, *Provost of the University*

George E. Blair, *Assistant Chancellor for Special Programs*

Murray H. Block, *Deputy to the Chancellor*

Martha J. Downey, *Secretary of the University*

Richard E. Gillman, *Acting Vice Chancellor for University Affairs*

Herbert B. Gordon, *Deputy to the Chancellor for Governmental Relations*

James F. Kelly, *Executive Vice Chancellor*

Jerome B. Komisar, *Vice Chancellor for Faculty and Staff Relations*

Oscar E. Lanford, Jr., *Vice Chancellor for Capital Facilities*

John J. Mather, *General Manager, Central Administration Services*

James E. Perdue, *Associate Chancellor for Special Projects*

Walter J. Relihan, Jr., *Counsel and Vice Chancellor for Legal Affairs*

Cornelius V. Robbins, *Associate Chancellor for Community Colleges*

James S. Smoot, *Vice Chancellor for Educational Services*

Harry K. Spindler, *Vice Chancellor for Finance and Business*

## Trustees

Mrs. Maurice T. Moore, *Chairman*

James J. Warren, *Vice Chairman*

Steve Allinger

Donald M. Blinken

Robert R. Douglass

Manly Fleischmann

William D. Hassett, Jr.

John L. S. Holloman, Jr.

Nan Johnson

Judith D. Moyers

John A. Roosevelt

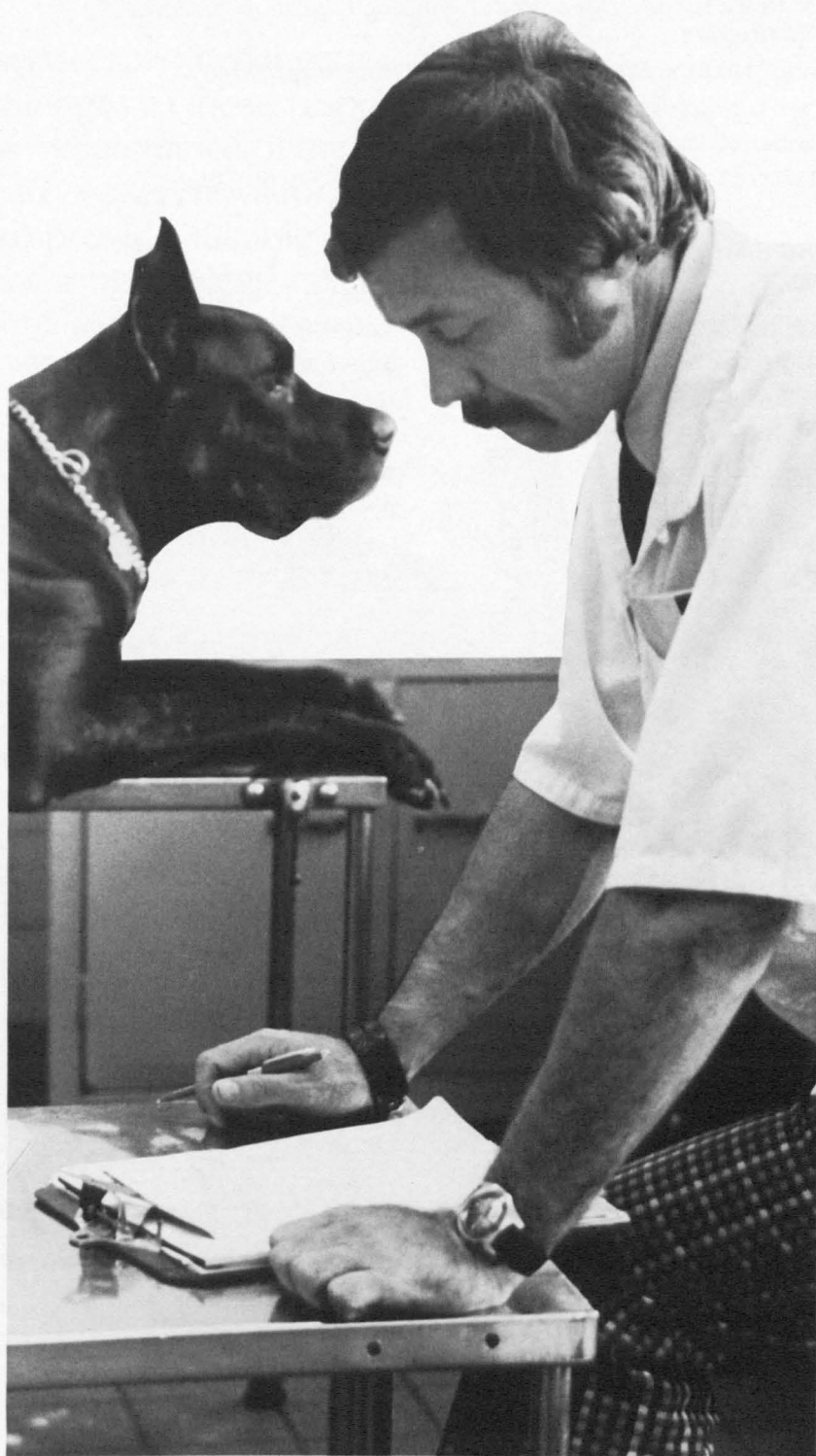
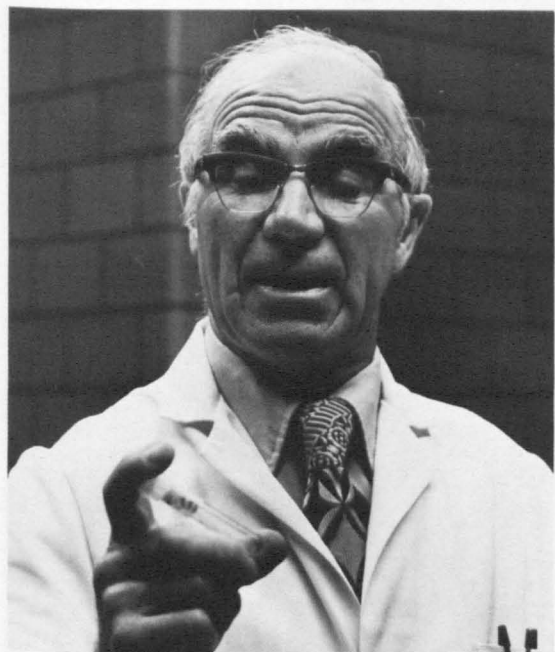
Mrs. Edward Siegel

Roger J. Sinnott

Mrs. Walter N. Thayer

Thomas Van Arsdale

Darwin R. Wales





# New York State College of Veterinary Medicine

## Administration

Edward C. Melby, Jr., *Dean*  
Charles G. Rickard, *Associate Dean for Academic Programs*  
Lennart P. Krook, *Associate Dean for Postdoctoral Education*  
Clyde I. Boyer, Jr., *Director of Laboratory Animal Medicine and Services*  
Robert B. Brown, *Director of Student Administration*  
John Gilmartin, *Assistant Director of Laboratory Animal Medicine and Services*  
N. Bruce Haynes, *Director of Continuing Education, Extension Veterinarian*  
Ann Marcham, *Director of Fiscal and Personnel Affairs*  
Neil L. Norcross, *Secretary of the College*  
Robert K. Radziwon, *Assistant to the Dean*  
Edward J. Trethaway, *Assistant to the Dean for Public Affairs*

## Advisory Council

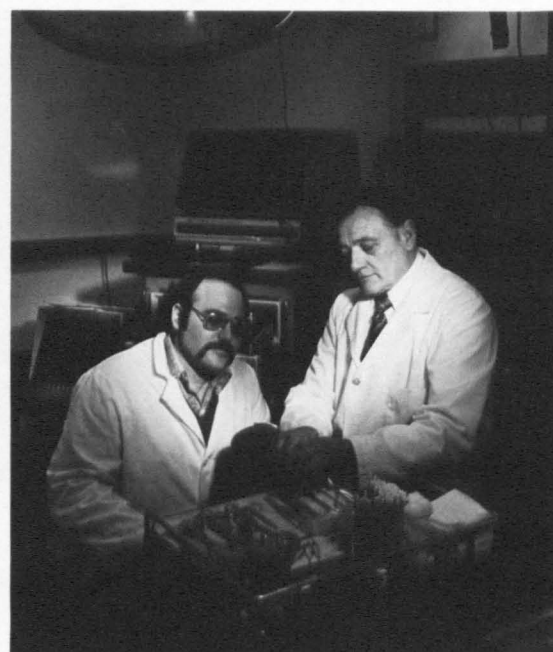
Jerry J. Callis, <i>Chairman</i>	James H. Leatham
George W. Abbott	Robert R. Marshak
Morton Adams	Albert W. Miller
J. Roger Barber	Gerald P. Murphy
M. Robert Clarkson	Robert Schwartz
W. Max Decker	William F. Stack
John S. Dyson	Bruce Widger
Joe R. Held	Leo A. Wuori
Lisle E. Hopkins	

## Advisory Board

Bruce W. Calnek, *Chairman of Department of Avian and Aquatic Animal Medicine*  
Raymond H. Cypess, *Director of Diagnostic Laboratory and Chairman of Department of Preventive Medicine*  
Alexander deLahunta, *Chairman of Department of Clinical Sciences and Director of Teaching Hospital*  
Howard E. Evans, *Chairman of Department of Anatomy*  
James H. Gillespie, *Chairman of Department of Microbiology*  
William Hansel, *Chairman of Department of Physical Biology/Section of Physiology*  
Lennart P. Krook, *Associate Dean for Postdoctoral Education*  
Robert M. Lewis, *Chairman of Department of Pathology*  
Douglas D. McGregor, *Director of James A. Baker Institute for Animal Health*  
Neil L. Norcross,\* *Secretary of the College*  
Charles G. Rickard, *Associate Dean for Academic Programs*  
Charles E. Stevens, *Chairman of Department of Physiology, Biochemistry, and Pharmacology*

\*Serving as secretary to the Advisory Board

*Note:* The persons listed on pages 22–24 were holding office on June 30, 1978.



# The Place

Developing programs, expanding services, and changing technology continue to present challenges to those responsible for the physical plant of the college. Maintenance of the buildings is itself a continuing process, and each year renovations and remodeling are required in order to provide suitable space and facilities for college activity while ensuring safe and healthful quarters for the people and the animals occupying them.



During 1977-78, good progress was made in the modernizing of heating, cooling, and ventilating systems throughout the college. This \$1.8 million project, scheduled for completion during 1979, included making needed structural repairs as the other work was done.

Special renovation of animal rooms in the Research Tower for studies involving a chemical carcinogen was completed, as was a modification of rooms on the sixth floor of the tower to accommodate expanded computer operations. The latter was accomplished at a cost of \$8,000. Remodeled quarters for the Radiology Section of the Teaching Hospital were also completed, allowing all radiology equipment to be brought together into a centralized location for more efficient operation. The project cost of \$20,000 covered repartitioning, new floors and ceilings, a new exhaust system, and new electrical power to handle the equipment load.

Because of budgetary restraints at the time the Diagnostic Laboratory was built, a central quality-water system planned for the structure could not be purchased. Funds totaling \$10,000 were made available during the year, and that system was installed during the summer of 1978.

The Mastitis Control Program, which had been operating from inadequate quarters on the main campus, was relocated to the former Radiation Biology Field Laboratory on Warren Road. That building was renovated at a cost of \$20,000.

The planned large-animal sterile surgery and isolation facilities are still in the design stage, but it is hoped that work can begin soon on these needed items.



State funds have been appropriated for an energy conservation rehabilitation project involving the Research Tower at the college and Bradfield Hall on the campus of the College of Agriculture and Life Sciences. A run-around heat recovery system for the animal-care section of the tower has been designed to extract heat from the exhaust systems and transfer it to the air supply system, a plan that is expected to cut down significantly on heat loss. Fume hoods in tower laboratories will also be provided with manual on-off controls, so that those not in use can be shut off and a further reduction in heat loss effected. Construction on these projects is slated to begin in the spring of 1979, at an estimated cost for the Research Tower portion of \$163,000.





# Financial Statements

Tables 14 and 15 are summaries of the income and expenditures of the New York State College of Veterinary Medicine for the fiscal years July 1, 1976, through June 30, 1977, and July 1, 1977, through June 30, 1978. These figures do not include expenditures for indirect costs, estimated for 1977-78 at \$2,159,343 for general support services and \$2,144,505 for salary fringe benefits.

## The College Dollar

- Where it came from*
- A. State appropriation (38.1%)
  - B. Federal appropriation (0.5%)
  - C. Grants and contracts (38.7%)
  - D. College income (22.7%)
- Where it went*
- E. Instruction and departmental research (17.9%)
  - F. Organized educational activities — Teaching Hospital (14.7%)
  - G. Organized research (35.1%)
  - H. Extension and public service (21.6%)
  - I. Academic support (2.2%)
  - J. Student services (0.6%)
  - K. Institutional support (6.3%)
  - L. Plant maintenance and operation (1.2%)
  - M. Student aid (0.4%)

**Table 14**  
**Source of Funds**

	1977-78	1976-77
State appropriation	\$ 5,023,200	\$ 4,530,644
Federal appropriation	70,063	77,300
Grants and contracts	5,091,527	3,552,572
College income	<u>2,984,876</u>	<u>2,851,234</u>
Total	\$13,169,666	\$11,011,750

**Table 15**  
**Use of Funds**

	1977-78	1976-77
Instruction and departmental research	\$ 2,352,107	\$ 2,272,823
Organized educational activities — Teaching Hospital	1,931,744	1,554,888
Organized research	4,619,173	3,738,240
Extension and public service	2,848,204	2,307,813
Academic support	294,456	188,463
Student services	79,536	34,303
Institutional support	826,845	740,539
Plant maintenance and operation	162,012	151,845
Student aid	<u>55,589</u>	<u>22,836</u>
Total	\$13,169,666	\$11,011,750

A.

B.

C.

D.

E.

F.

G.

H.

I.

J.

K.

L.

M.



# Further Information

Anyone interested in further information about the college or its programs is encouraged to request such information by mail or telephone. Writers should be sure to include appropriate zip codes for return mail.

## General Inquiries

General inquiries should be directed to  
Edward C. Melby, Dean  
New York State College of Veterinary Medicine  
Cornell University  
Ithaca, New York 14853  
Telephone: 607/256-3201.

## Statistical Supplements

The following supplements, containing detailed statistical material compiled on the basis of the calendar year (1977), are available:

*Report of Necropsies*  
*Report of Parasitological Examinations*  
*New York State Mastitis Control Program*  
*Poultry Disease Diagnostic Laboratories*

Requests for any of the above should include

the name of the document desired and should be addressed to

Annual Report Statistical Supplements  
New York State College of Veterinary Medicine  
Cornell University  
Ithaca, New York 14853.

## Special Programs and Units

Requests for information concerning the following special programs or facilities should be directed to the appropriate persons as listed below. All addresses are at the New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853, and all telephone numbers are area code 607.

### *Admissions and Student Affairs*

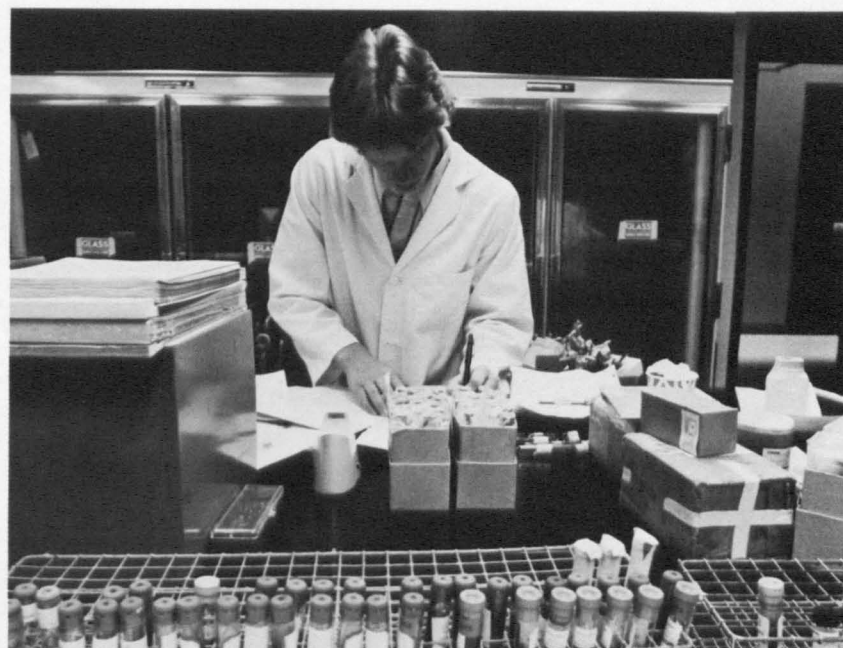
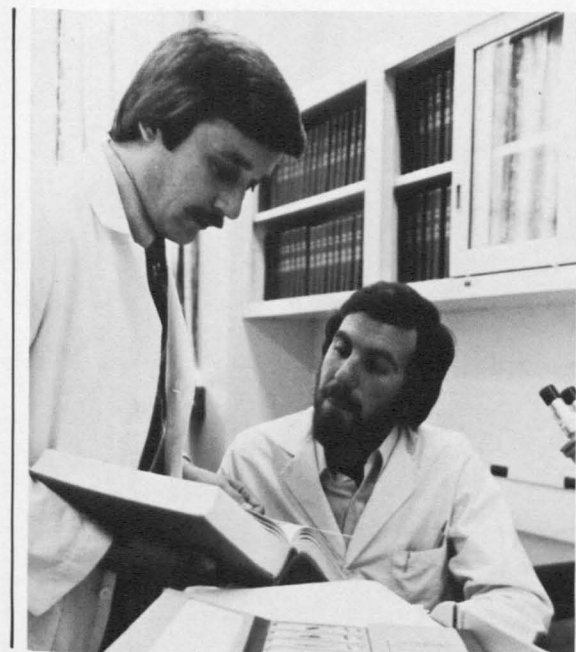
Mr. Robert B. Brown  
C111  
Telephone: 256-7635

### *Aquaculture Program*

Dr. James H. Gillespie  
616A Research Tower  
Telephone: 256-7759

### *Baker Institute*

Dr. Douglas D. McGregor  
James A. Baker Institute for Animal Health  
Telephone: 277-3044







*Biomedical Communications*

Mr. Robert F. Smith

L21

Telephone: 256-7682

*Biomedical Electronics*

Mr. H. Donald Hinman

621 Research Tower

Telephone: 256-7670

*Bovine Health Research Center*

Dr. George C. Poppensiek

725 Research Tower

Telephone: 256-7676

*Comparative Gastroenterology*

Dr. Charles E. Stevens

D116

Telephone: 256-2121

*Comparative Medicine*

Dr. George C. Poppensiek

725 Research Tower

Telephone: 256-7676

*Computing Facility*

Dr. Howard Moraff

826 Research Tower

Telephone: 256-7687 or 256-4525

*Continuing Education*

Dr. N. Bruce Haynes

427 Research Tower

Telephone: 256-7700

*Development and Public Affairs*

Mr. Edward J. Trethaway

G1 Research Tower

Telephone: 256-7603

*Diagnostic Laboratory*

Dr. Raymond H. Cypess

207 Diagnostic Laboratory

Telephone: 256-6541

*Equine Drug Testing and Research*

Dr. George A. Maylin

114 Diagnostic Laboratory

Telephone: 256-6555

*Equine Infectious Diseases, Laboratory for*

Dr. Leroy Coggins

216 Research Tower

Telephone: 256-2150

*Equine Reproductive Studies*

Dr. Donald H. Lein

M35

Telephone: 256-7689

*Equine Research Park*

Dr. Jack E. Lowe

517 Research Tower

Telephone: 256-5402 or 256-7656

*Equine Research Program*

Dr. Herbert F. Schryver

516 Research Tower

Telephone: 256-7656

*Feline Research Laboratory*

Dr. Fredric W. Scott

618A Research Tower

Telephone: 256-7663

*Fish Diagnostic Laboratory*

Dr. Louis Leibovitz

E116

Telephone: 256-5440

*Graduate Study, Field of Veterinary Medicine*

Dr. Leroy Coggins

216 Research Tower

Telephone: 256-2150

*Laboratory Animal Medicine and Services,  
Division of*

Dr. Clyde I. Boyer, Jr.

220 Research Tower

Telephone: 256-7787

*Library (Flower Veterinary Library)*

Ms. Susanne Whitaker

C201

Telephone: 256-2083

*Mastitis Control Program*

Ms. Frances D. Barnes

Field Laboratory

Telephone: 256-2186

*Poultry Diagnostic Laboratories*

Dr. Bruce W. Calnek

E117

Telephone: 256-5449

*Teaching Hospital*

Dr. Alexander deLahunta

G130

Telephone: 256-6545

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