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-second Annual Report

July 1, 1978–June 30, 1979

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
multibillion-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 1978–79 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

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, 1979, this being the eighty-second annual report of this college.

Respectfully submitted,

Edward C. Melby, Jr.
Dean

Office of the President
Cornell University

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, 1978, and ending June 30, 1979.

Sincerely yours,

Frank H. T. Rhodes
President

Office of the Chancellor
State University of New York
Albany, New York

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

Ladies and Gentlemen:

Pursuant to the law, the 1978–79 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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The traditional pause at the end of a twelve-month period to summarize the year's events, although useful, tends to draw artificial lines across a continuum of activities. Few goals are set, and met, within defined temporal limits; in fact, few goals are met as originally set—objectives change and evolve even as progress is made toward their achievement. Indeed, beginnings and ends blur and meld as it becomes clear that today's successes spring from earlier efforts as surely as tomorrow's accomplishments will grow from seeds planted today.

Because the summer of 1979 brought to a close not only the 1978-79 year but also marked the completion of five years of activity at the New York State College of Veterinary Medicine under the leadership of Dean Melby, this summary is designed to present a wide-screen picture, frequently depicting events in multiyear frames as well as the usual twelve-month segments. From such a vantage point present needs and strengths may be seen in clearer focus, and a broader view of the road ahead may unfold.
I have the honor to report the first year of the New York State Veterinary College as a substantial success.

James Law, 1897
As a backdrop for this report, some comments have been selected from writings and speeches of James Law during the first five years of the college's existence. All of these quotations, as well as the biographical material below, were drawn from A Cornell Heritage: Veterinary Medicine 1868–1908, compiled and written by Ellis Pierson Leonard, emeritus professor of veterinary medicine at the New York State College of Veterinary Medicine, and published by the college in September 1979. Specific citations are given in the credits section, page 36 of this report.

James Law, a Scotsman who had made his mark in the field of veterinary medicine — as teacher, writer, scholar, practitioner — in Scotland, England, Ireland, and much of the European continent by the age of thirty, was selected in 1869 to become a member of the original faculty of Cornell University and the first professor of veterinary science at a university in the United States. For the next quarter of a century Dr. Law taught veterinary medicine, pursued research, and was a tireless worker for improved animal and human health across the land through his many public service activities but never ceased working toward the achievement of one of his dreams, the establishment of a veterinary college at Cornell. In 1894, when legislation was passed creating the New York State Veterinary College, making it the fourth such college at an institution of higher learning in the United States, James Law was appointed its director. Dr. Law was to serve in this capacity as first dean until his retirement at the age of seventy in 1908, after forty full years of service to Cornell and to veterinary medicine in the United States.
Growth and change, cautiously embraced and carefully planned to avoid unnecessary disruption, have been major elements in college activity in recent years. The change in name from Veterinary College to College of Veterinary Medicine, effected early in 1975, set the stage for a broad review of the college mission and an extensive reorganization of resources and programs. One of the most remarkable arenas of growth has been research: the college has experienced an increase of about 400 percent in research grants and contracts during the past five years, and this at a time when funding from many sources was severely cut. The research program has expanded accordingly, with the strongest emphasis on investigations dealing with diseases of food- and fiber-producing animals and with human health problems.

In the five years since the first compact agreements were implemented, formalizing the college's role, together with the School of Veterinary Medicine at the University of Pennsylvania, as a regional resource, the planned gradual increase in numbers of students has been achieved. That and the accompanying increase in revenues from the cooperating states helped make it possible to enlarge the size and diversity of the faculty, expand the course offerings, and make more efficient use of resources. Agreements are now in effect not only with the New England states and New Jersey but also with Delaware, Maryland, and Puerto Rico, and several contracts have been signed on a five- or ten-year basis.

Broadened programs for interaction between the college and individuals have been implemented in recent years. These include more seminars, symposia, and informal meetings for laypersons as well as for members of the profession; increased public information activity through various media; more direct contact with alumni and other friends of the college.

The field of veterinary science has been rapidly enlarging, deepening, widening, and becoming more thoroughly cultivated....

James Law, 1896

Table 1
Degrees Awarded, 1978–79

<table>
<thead>
<tr>
<th>Degree</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.V.M. (with Distinction: 4)</td>
<td>72</td>
</tr>
<tr>
<td>M.S.</td>
<td>4</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>10</td>
</tr>
</tbody>
</table>
through the Campaign for Veterinary Medicine, which has brought more than $5 million in gifts and pledges to support college programs; and participation in college affairs by leaders in many areas through the establishment of advisory groups and councils.

The explosive pace at which information and technology are growing in all areas of science, including veterinary medicine, is putting a severe strain on the traditional approaches to preparing students for entrance into the field. This problem was graphically illustrated recently by a member of the college faculty, who stated that all of the techniques he is now using in his research have been designed in the past six years. Since he has been out of veterinary college for more than six years, clearly, the specific tools he needs today could not have been acquired as part of his formal education. It is increasingly apparent that motivation, inquisitiveness, and dedication to a continual learning process must be instilled in the student during the college years, in addition to basic knowledge and basic techniques. Only in this way can the profession and the individuals who constitute its membership fulfill their vital roles.

To meet the extraordinary demands created by extraordinary progress, the faculty and administration of the college have embarked on an unprecedented review of the entire instructional process. During the course of this analysis little is being taken for granted. Traditional methods; long-accepted components of the curriculum; established procedures, attitudes, and goals; all are being subjected to spotlight scrutiny. Input from every quarter — faculty members, students, practitioners, educators, technicians, administrators — is being sought so that the utmost objectivity and the broadest perspective may be brought to bear on this issue.

The process will not be entirely painless. Culling — the inevitable slaughter of some sacred cows — and the alterations in familiar patterns inherent in any renovation will produce their uncomfortable but predictable stresses. Ultimately, however, the process will be a creative one that should carry a rewarding bonus in satisfaction to all participants.

The construction and staffing of the new Diagnostic Laboratory, the addition of new clinical and consulting programs in conjunction with the reorganized Teaching Hospital, and the formation of a new Department of Preventive Medicine have been key elements in the revision of clinical instruction and in other curriculum changes to provide more diversity and greater concentration.

In making the transition from the methods of the past . . . some inconvenience must come....

James Law, 1898
Practitioners, including many alumni, along with other interested spectators from many parts of the Northeast, braved unusually crisp fall weather in October 1978 to attend dedication ceremonies for the new Diagnostic Laboratory, designed in 1974, begun in 1975, and completed in the fall of 1976. Held on the Veterinary Oval linking the Research Tower, the Schurman complex, and the new structure, the program featured representatives of the three official groups responsible for funding, constructing, and operating the laboratory — the New York State Department of Agriculture and Markets, Cornell University, and the New York State College of Veterinary Medicine — as well as personnel of the United States Department of Agriculture and other government officials. Tours of the new facility, a reception, and a luncheon followed the formal ceremony.

The completion of the structure, the recruitment of an outstanding group of faculty members and support personnel to staff it, and the reorganization of operations have made possible greatly expanded programs of significance to the health and economy of the entire region. The many tests performed and the consultation services provided are the tools needed to assure the rapid diagnosis and control of infectious and toxic diseases of animals, monitor outbreaks of animal illness that might pose a threat to human health or to animal industries in the Northeast, and maintain vigilance against the entrance of exotic diseases into the state's animal population.

New testing programs in serology, parasitology, toxicology, brucellosis, clinical immunology, and endocrinology; the development of a computer program; and the revision of business operations have been reflected in increased numbers of accessions and resulting revenues. Much effort has been devoted to expanding and refining the testing program designed to support the growing livestock export industry of the state. Plans are well under way to develop a broad program of public service through field and extension programs to be organized in conjunction with Cooperative Extension and Cornell's College of Agriculture and Life Sciences.

The Equine Drug Testing and Research Program, which has its headquarters in the Diagnostic Laboratory and is supported by the New York State Racing and Wagering Board, was expanded during the year to include prerace testing at thoroughbred tracks, bringing the total number of field laboratories to eleven (seven sites are normally in operation at any one time) and the total number of samples taken to well over 150,000. The program has doubled in size since 1974 and continues to be...

By the generosity of the Empire State... we have been furnished with... a scientific institution from which large and important results may fairly be expected.

James Law, 1896
a major force in maintaining the vigor of the state's racing industry, which, with some seventeen hundred race days a year, is the largest in the nation. The role of the program in deterring the use of illegal drugs is reflected in the figures—less than one-tenth of one percent of the samples taken in the past year were positive.

Other college support to the livestock industries of the state was provided as usual through the Teaching Hospital, where the large-animal clinic showed the greatest increase in patient volume. Funds from alumni gifts have been used to purchase several pieces of equipment that add significantly to the hospital's capability in teaching as well as in diagnosis and treatment. Included are such highly sophisticated instruments as a Kowa slit lamp ophthalmic microscope, a surgical fiberoptic system, a Hewlett-Packard electrocardiograph, and special orthopedic surgical equipment, along with other less complex but essential items such as a whirlpool hydrotherapy unit for the dermatological service, a portable large-animal surgery table, mats and padding for recovery stalls, an Ohio cattle transporter, and a two-horse trailer for moving equine patients between the hospital and the Equine Research Park. Extra attention has been devoted to improving the promptness and thoroughness of reports to referring veterinarians, and high priority continues to be given to requests for information by mail and telephone.

An expanded consultation service for large-animal diseases, initiated this year under the direction of Dr. Francis H. Fox, professor of medicine and obstetrics, and conducted through the Diagnostic Laboratory, makes the extensive clinical and diagnostic capabilities of the college readily accessible to practicing veterinarians and the livestock owners they serve on a twenty-four-hour-a-day basis. Fourth-year students may elect to participate in the consulting program as part of their clinical training.

An expansion not only in numbers but also in species of animals receiving attention at the college has become increasingly apparent in the past five to ten years. Diagnostic services for and treatment of pet and wild birds, aquarium fish and food fish, and laboratory animals have all increased markedly. The Fish Diagnostic Laboratory, which serves fish

Table 2
Clinical and Diagnostic Accessions, 1978

<table>
<thead>
<tr>
<th>Medical and surgical</th>
<th>Horses</th>
<th>Cattle</th>
<th>Sheep &amp; Goats</th>
<th>Swine</th>
<th>Dogs</th>
<th>Cats</th>
<th>Poultry</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-animal outpatient</td>
<td>1,918</td>
<td>36,918</td>
<td>461</td>
<td>871</td>
<td>2</td>
<td>5</td>
<td>573</td>
<td>1</td>
<td>40,176</td>
</tr>
<tr>
<td>Clinical pathology specimens</td>
<td>3,329</td>
<td>3,102</td>
<td>430</td>
<td>157</td>
<td>8,653</td>
<td>2,079</td>
<td>271</td>
<td>18,021*</td>
<td></td>
</tr>
<tr>
<td>Diagnostic Laboratory</td>
<td>19,733</td>
<td>176,989</td>
<td>1,084</td>
<td>399</td>
<td>8,148</td>
<td>3,531</td>
<td>328</td>
<td>210,323</td>
<td></td>
</tr>
<tr>
<td>Parasitology Laboratory</td>
<td>101</td>
<td>277</td>
<td>79</td>
<td>21</td>
<td>1,514</td>
<td>422</td>
<td>8</td>
<td>56</td>
<td>2,478</td>
</tr>
<tr>
<td>Necropsies</td>
<td>326</td>
<td>796</td>
<td>243</td>
<td>302</td>
<td>641</td>
<td>321</td>
<td>8</td>
<td>109</td>
<td>2,746</td>
</tr>
<tr>
<td>Surgical pathology</td>
<td>230</td>
<td>194</td>
<td>26</td>
<td>14</td>
<td>5,174</td>
<td>756</td>
<td>68</td>
<td>142</td>
<td>6,604</td>
</tr>
<tr>
<td>Laboratory animal examinations</td>
<td>268</td>
<td></td>
<td></td>
<td>144</td>
<td>291</td>
<td></td>
<td>547</td>
<td>1,250†</td>
<td></td>
</tr>
<tr>
<td>Laboratory animal necropsies</td>
<td></td>
<td>1</td>
<td></td>
<td>4</td>
<td>92</td>
<td></td>
<td>159</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>Aquatic animal accessions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>620</td>
<td>620‡</td>
<td></td>
</tr>
<tr>
<td>Poultry Disease Laboratories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,677</td>
<td>3,262</td>
<td>12,939</td>
</tr>
<tr>
<td>Mastitis Control Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>226,126</td>
</tr>
</tbody>
</table>

Totals | 27,267 | 445,311 | 2,612 | 1,829 | 30,056 | 10,257 | 9,874 | 6,068 | 533,274 |

* The Clinical Pathology Laboratory performed 23,367 tests on the 18,021 specimens.
† The Division of Laboratory Animal Services maintained 14,474 animals; the daily census averaged 3,681.
‡ The Fish Diagnostic Laboratory examined 2,289 specimens, submitted as 620 accessions.

In a district like this... our material is sufficiently abundant and far more comprehensive than can be obtained in a city.

James Law, 1896
hatcheries and the state Department of Environmental Conservation in addition to laboratory-animal professionals and aquarists, provided support to the Long Island shellfish industry through monthly visits sponsored by the Sea Grant Institute of New York. Aquavet, an annual program begun in 1977 and also supported by Sea Grant funds, figures importantly in teaching and research relating to the health of aquatic animals, and a new course in diseases of aquarium fish is being offered in spring 1980 by the Department of Avian and Aquatic Animal Medicine.

Efforts begun early in 1975 to organize and coordinate the many college activities relating to bovine health achieved official University recognition when the Board of Trustees approved the name Bovine Health Research Center at their March 1979 meeting. Equally satisfying to those who seek increased support and awareness of the college's commitment to improved health in the dairy and beef herds of the state was the receipt of a challenge grant to be used toward the construction of needed facilities. The anonymous donor has pledged to provide the $600,000 it will cost to construct a specific-pathogen-free herd facility if the college raises the $1.5 million required to build a proposed isolation barn for the center's research programs. In addition to participating in the fundraising effort, the center has embarked on a broad information program aimed at acquainting members of the cattle industry with its programs and the potential they hold for helping to reduce the losses that result from bovine diseases.

The college's Office of Continuing Education has doubled the number of workshops, seminars, and conferences held for practitioners in the past five years and has increased the total number of hours of instruction to nearly twice the 1974-75 level. During the past year 1,437 regional veterinarians attended the fourteen events, and 114 programs from the office's autotutorial library were lent to practitioners and veterinary hospitals.

The one-day college-sponsored Canine/Feline Symposium for laypersons, held in Andover, Massachusetts, in April 1979, attracted 450 registrants to the canine program and 80 to the feline.

**Table 3**

<table>
<thead>
<tr>
<th>Program</th>
<th>Participants</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Anesthesiology for Technicians</td>
<td>47</td>
<td>8</td>
</tr>
<tr>
<td>Annual Conference for Veterinarians</td>
<td>424</td>
<td>24</td>
</tr>
<tr>
<td>Basic Anesthesiology for Technicians</td>
<td>47</td>
<td>8</td>
</tr>
<tr>
<td>Basic Radiology for Technicians</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Canine/Feline Symposium</td>
<td>512</td>
<td>8</td>
</tr>
<tr>
<td>Farrier's Conference</td>
<td>88</td>
<td>16</td>
</tr>
<tr>
<td>Intermediate Anesthesiology for Technicians</td>
<td>53</td>
<td>8</td>
</tr>
<tr>
<td>Mastitis in Depth II</td>
<td>119</td>
<td>16</td>
</tr>
<tr>
<td>Medical Photography</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Ophthalmology Workshop</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Pathology Short Course</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>Radiology for Technicians</td>
<td>30</td>
<td>16</td>
</tr>
<tr>
<td>Swine Health Management</td>
<td>29</td>
<td>16</td>
</tr>
<tr>
<td>Thoracic Radiology</td>
<td>13</td>
<td>16</td>
</tr>
</tbody>
</table>

Lendings, autotutorial programs: 114

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*With the weighty responsibility of a city's health on your shoulders, you will bless the day that brought you through the rigorous studies of anatomy, physiology, histology, pathology, toxicology...*

James Law, 1896
The extraordinary growth in funds received from sources outside the college for research during the past few years is particularly remarkable in light of the fact that a large share of the money has come from the federal government, in an era when federal funds have become more scarce and more difficult to obtain. More than one hundred studies at the college currently are receiving outside support. The subjects are diverse, including investigations relating to ailments of cattle, sheep, horses, swine, chickens, pet and wild birds, cats, dogs, shellfish and finfish, and laboratory animals, as well as those that have direct bearing on human diseases and disorders. Some work is directed at solving specific problems such as the development of a vaccine or a diagnostic test for a particular disease; other studies are aimed at increasing scientific knowledge and understanding in basic disciplines such as anatomy and physiology.

Sources of funds are diverse as well. The National Institutes of Health support work on arthritis, parasitic infections, aging, cancer, neurological disorders, virology and immunology, arteriosclerosis, and diabetes. Sea Grant money promotes studies of aquatic animal diseases. The United States Department of Energy funds investigations of potential pollution resulting from energy production. Money allocated through the United States Department of Agriculture supports studies primarily involving diseases of food- and fiber-producing animals. Funds for many equine research activities are provided through New York State agencies. Associations and foundations provide support for research in specific diseases such as myasthenia gravis, bovine mastitis, canine hip dysplasia (as a model of early events in osteoarthritis), and metabolic and nutritional disorders of cattle. Funds for many other projects are supplied by a variety of corporations and companies.

The question [is] how to best contribute to the welfare of our great livestock interests.

James Law, 1898
Increasingly, research projects are being conducted on a multidisciplinary basis, with faculty from a variety of disciplines and several departments (occasionally including members of departments in other schools and colleges at Cornell) bringing their diverse skills and experience to bear on solving a problem. Sometimes results develop rapidly and have clear and immediate applications; more often, they are bits and pieces, as of a puzzle that takes shape slowly, that may have profound implications when combined with information uncovered elsewhere. In every case the pool of knowledge that will ultimately prove valuable to all living creatures is steadily increased.

Studies designed to increase understanding of seizure disorders, such as epilepsy, conducted by Wayne S. Schwark, associate professor in the Department of Physiology, Biochemistry, and Pharmacology, show considerable promise of leading to improved treatment for such ailments in human beings as well as in animals. Two models of epilepsy in rats are under study. In both, the amount and performance of several neurochemicals (substances that appear to affect nerve activity) in the brain have been measured. Various deficiencies and other alterations from the normal have been observed, indicating that these neurochemicals may be key elements in seizure disorders. From these observations it appears likely that certain drugs could be useful in correcting specific neurochemical abnormalities and seizure states, although they might aggravate others. Work to acquire needed data continues.

Knowledge of the specific mechanisms that allow, aid, or retard the absorption of various elements from the intestinal tract of an animal into its body systems can be useful in several important ways. For example, since certain vital functions in animals and human beings require calcium, phosphorous, and other minerals, and since these minerals must be obtained from the diet, it is necessary to understand the means by which they are absorbed in order to devise ways to treat conditions related to deficiencies. In dealing with the absorption of other elements that have a negative effect on the body — such as environmental pollutants — information about how they enter the system is also necessary. Much effort has been devoted over the years to such studies, at Cornell and elsewhere, and many of the mysteries are being untangled. One study, conducted by Robert H. Wasserman, professor in the Department of Physical Biology, and his colleagues, has yielded some important pieces of the puzzle. Previous work had shown that vitamin D is essential to the absorption of calcium and phosphorous and that the

Others will be called to undertake investigations... where the same wide and accurate knowledge, the same keen insight and skill, and the same scientific methods, can alone bring out valuable results.

James Law, 1896
process is also dependent on the concentration of these minerals in the intestinal tract. Further study revealed that three intestinal proteins appear to be involved, two of which are dependent on the presence of vitamin D. One of these has been isolated and studied, and the second is now under investigation in detail. The third is currently being isolated and identified. Evidence has also been collected indicating that another mineral ion, sodium, is essential for the absorption of phosphorous. Among the environmental pollutants studied to date are cadmium, arsenate, zinc, and lead; information relating to their absorption from the intestinal tract is growing.

A study by Lennart P. Krook, professor in the Department of Pathology, and George A. Maylin, associate professor in the Diagnostic Laboratory, showed that extensive damage had occurred to the cattle population on a Canadian island off the northern New York State border as a result of fluoride pollution from an aluminum plant. This has raised questions concerning the impact of such industrial pollution on human health. After reports of the Krook-Maylin study were published, both the Canadian government and the New York State Department of Health established commissions on fluorosis to investigate the problem.

Researchers at Cornell, Duke, and Harvard Universities and the Max Planck Institute have been participating for eight years in a coordinated effort to develop procedures to prevent and treat some kinds of cancer in cats. Principal investigator for the Cornell portion of the study is Fernando M. Noronha, professor in the Department of Pathology. Considerable progress has been made in developing serums and vaccines that are effective in preventing and treating feline sarcomas and leukemias, and preliminary data from more recent efforts to establish practical preventive procedures are encouraging. These studies not only are valuable in terms of feline health and, almost certainly, the health of other domestic species but may also have profound implications in the

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**Table 4**  
**Laboratory Animals Housed and Cared for by the Division of Laboratory Animal Medicine and Services, 1978–79**

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Daily Average</th>
<th>Annual Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calves</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Cats (SPF colony)</td>
<td>125</td>
<td>570</td>
</tr>
<tr>
<td>Cats (other)</td>
<td>114</td>
<td>253</td>
</tr>
<tr>
<td>Chicks</td>
<td>445</td>
<td>5,645</td>
</tr>
<tr>
<td>Dogs</td>
<td>220</td>
<td>426</td>
</tr>
<tr>
<td>Fish</td>
<td>180</td>
<td>1,500</td>
</tr>
<tr>
<td>Frogs</td>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>Goats</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td>Guinea pigs</td>
<td>387</td>
<td>1,131</td>
</tr>
<tr>
<td>Hamsters</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Heifers (bovine)</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Mice</td>
<td>1,355</td>
<td>1,978</td>
</tr>
<tr>
<td>Rabbits</td>
<td>195</td>
<td>555</td>
</tr>
<tr>
<td>Rats</td>
<td>359</td>
<td>907</td>
</tr>
<tr>
<td>Sheep</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Raccoon</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Toads</td>
<td>50</td>
<td>165</td>
</tr>
<tr>
<td>Turtles</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Woodchucks</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>3,501</strong></td>
<td><strong>13,356</strong></td>
</tr>
</tbody>
</table>

... can be best pursued by the veterinarian, who... adds to his accomplishments through practical knowledge of all animal diseases.

James Law, 1896
search for prevention and treatment of certain kinds of cancer in human beings.

Funding has recently been received that will allow significant progress to be made toward development of an international registry of reproductive pathology, which has been in the planning stage for many years. Under the direction of Kenneth McEntee, professor in the Department of Clinical Sciences, the registry is being organized into a major world resource with economic and scientific implications for the health of food, fiber, and power animals everywhere. The registry will provide a central data bank, consultation service, teaching aids, and training programs on reproductive problems to assist breeders, practitioners, and researchers throughout the world in the battle to reduce the enormous losses that result from reproductive failures. The collection of material — clinical records, tissue sections, and so forth — at the college is the largest in the world and will grow in size and scope as contributions from other nations are incorporated.

One of the more serious aspects of pseudorabies virus infection is that in swine it is likely to be a mild disease and may occur as a latent infection without producing any outward signs, but it is transmissible to other domestic animals, such as cattle and sheep, in which the effects are often more devastating. Methods of detecting latent pseudorabies infections in pigs have been under investigation by Kyu M. Lee and Ben E. Sheffy, professors in the Department of Microbiology. Evidence to date in this study indicates that treatment of the animals with corticosteroids causes a reactivation of the pseudorabies virus if it is present and can prove a feasible method for identifying swine that have the latent infection.

Canine heartworm (*Dirofilaria immitis*) is a serious parasite of dogs that occurs throughout the world, including parts of New York and other states in the nation. Diagnostic difficulties have hampered efforts to treat and control the condition. The parasite itself lives in the heart and pulmonary arteries, and the standard diagnostic procedure has been to look for embryos (microfilariae) of the parasite in the blood of suspected canine victims. Unfortunately, however, these microfilariae are not always present in the blood of infected dogs, so their absence could lead to a misdiagnosis. In the past year Robert B. Grieve, research associate in the Department of Preventive Medicine, has developed a procedure for detecting antibodies to the parasite in the serums of infected dogs. The procedure has proven quite successful, and current work is aimed at refining it and evaluating its usefulness at various stages of the

As trusted representatives of science, it is expected of us that we fortify ourselves with the lore of the past....

James Law, 1896
heartworm infection. Several other valuable pieces of information concerning the nature of the immune response to the parasite have also been garnered from the studies and may be significant in future investigations.

A practical procedure to protect young chickens from the broad effects of infectious bursal disease (IBD), a worldwide disease of significant economic importance, has been developed by Ben Lucio, a graduate student working in the Department of Avian and Aquatic Animal Medicine under the direction of Stephen B. Hitchner, a professor in that department. When unprotected chickens are infected early in life with IBD their immune response is suppressed, making them prone to many diseases, all of which tend to reduce body weight gain, and many of which prove fatal. Lucio's work has demonstrated that chickens hatched from eggs of hens that were hyperimmunized (given extra amounts of virus) are protected for at least the first four weeks of life from the immunosuppression.

Part of a broad investigation dealing with the influence of diet on equine endurance has been completed by a group of researchers at the college, including Herbert E. Schryver, Harold F. Hintz, and John E. Lowe, associate professors in the Department of Clinical Sciences. For the part of the study concerning fat, eight Arabian horses were used. Four of them were fed a corn-alfalfa diet, while the other four were given a corn-alfalfa diet with 8 percent corn oil included. All the animals were ridden on four different occasions at a rate of nine miles an hour over a fifty-mile route. It was found that fat, when included in the diet, was well used and provided some protection against lowered levels of glucose (sugar) in the blood. Because of this and because its high density makes it a convenient addition to the diet, fat must be considered a useful ingredient in the food of horses from which endurance capabilities are demanded. It is important, however, that antioxidants be added to retard rancidity, which not only makes the food less palatable but also destroys needed vitamins.

The growing popularity of birds as companion animals has stimulated importation of many species, which, in turn, has been reflected in increased levels of infectious diseases. One that has shown a marked rise in incidence is Pacheco's disease, a herpesvirus infection that occurs in parrots, parakeets, and other psittacine birds and frequently results in high mortality. Birds are most often exposed in situations where large numbers of them are closely confined, such as in quarantine stations,
pet stores, zoos, and aviaries. Stephen B. Hitchner, professor in the Department of Avian and Aquatic Animal Medicine, has succeeded in producing a vaccine from a virus that is grown in cell cultures, killed, and then prepared in an oil emulsion that has proven very effective with parakeets. Vaccines containing various concentrations of the virus were tested, and it was determined that a 100-times concentration of the tissue-culture suspension provided nearly 100 percent protection to the parakeets that received it and were later challenged with a field virus. Further tests are needed to discover whether the dosage can be adjusted to provide similar protection for other species of birds.
New financial support received from sources outside the college during the year is summarized in table 5. 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 5**  
**Summary of Grants and Contracts Awarded, 1978–79**

<table>
<thead>
<tr>
<th>Recipient</th>
<th>1978 –79</th>
<th>Subsequent Years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>$ 392,435</td>
<td>$ 30,000</td>
<td>$ 422,435</td>
</tr>
<tr>
<td><em>Avian and Aquatic Animal Medicine</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poultry Disease Laboratories</td>
<td>147,431</td>
<td>–</td>
<td>147,431</td>
</tr>
<tr>
<td>Other</td>
<td>222,044</td>
<td>142,723</td>
<td>364,767</td>
</tr>
<tr>
<td>Total</td>
<td>$ 369,475</td>
<td>$ 142,723</td>
<td>$ 512,199</td>
</tr>
<tr>
<td><em>Diagnostic Laboratory</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture and Markets Contract</td>
<td>628,943</td>
<td>–</td>
<td>628,943</td>
</tr>
<tr>
<td>Equine Drug Testing and Research Program</td>
<td>1,472,500</td>
<td>–</td>
<td>1,472,500</td>
</tr>
<tr>
<td>Total</td>
<td>$2,101,443</td>
<td>–</td>
<td>$2,101,443</td>
</tr>
<tr>
<td><em>Preventive Medicine</em></td>
<td>307,833</td>
<td>257,735</td>
<td>565,568</td>
</tr>
<tr>
<td><em>Clinical Sciences</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mastitis Control Program</td>
<td>270,440</td>
<td>–</td>
<td>270,440</td>
</tr>
<tr>
<td>Other</td>
<td>412,424</td>
<td>187,947</td>
<td>600,371</td>
</tr>
<tr>
<td>Total</td>
<td>$ 682,864</td>
<td>$ 187,947</td>
<td>$ 870,811</td>
</tr>
<tr>
<td><em>Microbiology</em></td>
<td>434,486</td>
<td>414,242</td>
<td>848,728</td>
</tr>
<tr>
<td><em>Baker Institute for Animal Health (Microbiology)</em></td>
<td>850,236</td>
<td>469,234</td>
<td>1,319,470</td>
</tr>
<tr>
<td><em>Pathology</em></td>
<td>825,024</td>
<td>659,990</td>
<td>1,485,014</td>
</tr>
<tr>
<td><em>Physical Biology/Section of Physiology</em></td>
<td>405,335</td>
<td>666,753</td>
<td>1,072,088</td>
</tr>
<tr>
<td><em>Physiology, Biochemistry, and Pharmacology</em></td>
<td>268,886</td>
<td>623,403</td>
<td>892,289</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td>$6,638,017</td>
<td>$3,452,027</td>
<td>$10,090,044</td>
</tr>
</tbody>
</table>

**Table 6**  
**Growth in Grants and Contracts, 1974–79**

<table>
<thead>
<tr>
<th></th>
<th>Total Funding: Current and Future Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual Basis</td>
</tr>
<tr>
<td>1974–75</td>
<td>$1,133,318</td>
</tr>
<tr>
<td>1975–76</td>
<td>3,348,491</td>
</tr>
<tr>
<td>1976–77</td>
<td>4,796,832</td>
</tr>
<tr>
<td>1977–78</td>
<td>4,935,743</td>
</tr>
<tr>
<td>1978–79</td>
<td>6,638,017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>$2,663,774</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974–75</td>
<td>4,047,646</td>
</tr>
<tr>
<td>1975–76</td>
<td>5,547,588</td>
</tr>
<tr>
<td>1976–77</td>
<td>6,411,974</td>
</tr>
<tr>
<td>1977–78</td>
<td>10,090,044</td>
</tr>
</tbody>
</table>
Increased faculty salaries, made possible by additional state funds, have brought relief from some of the specific staffing problems that characterized recent years — when valuable people were lost to other institutions, the government, and industry, where financial gain was more nearly commensurate with their training and specialized skills. Most of the additional funding provided this past year has been used to bring salaries for assistant and associate professors in line with those offered at other health sciences institutions. The levels allowed for full professors have not yet been adjusted proportionately, and steps to do so must not be long delayed if the recently achieved stability is to be maintained.

Opportunities for professional growth, recognition of valuable contributions, and a way to identify problem areas in faculty endeavors were some of the gains netted from the faculty performance appraisal procedure implemented during 1978-79. Faculty members were asked to update their curriculum vitae, outline their responsibilities for the previous year, and describe general plans of work for the following year. Each department chairman prepared an evaluation of staff members' work and then met with each staff member to discuss the material developed, define needs, and determine appropriate objectives. Cooperation among all persons involved was total, and positive results have been felt in terms of morale as well as in the discharge of specific responsibilities.

Staffing for the new Department of Preventive Medicine is nearly complete, the reorganized courses for professional-degree candidates have been incorporated into the curriculum, and three new courses in the field are now available on the graduate level. Official approval of preventive medicine as a major in the graduate Field of Veterinary Medicine was granted during the year by the Cornell Graduate School.

<table>
<thead>
<tr>
<th>Table 7</th>
<th>Graduate Student Enrollment, Field of Veterinary Medicine, 1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidates for the Ph.D. degree</td>
<td>51</td>
</tr>
<tr>
<td>Candidates for the M.S. degree</td>
<td>21</td>
</tr>
<tr>
<td>Non-degree candidates</td>
<td>1</td>
</tr>
<tr>
<td>Professional-degree students in the combined D.V.M./M.S. program</td>
<td>2</td>
</tr>
<tr>
<td>Professional-degree students in the combined D.V.M./Ph.D. program</td>
<td>1</td>
</tr>
</tbody>
</table>

The salary is set at $3000, and the work will be in large part in teaching, but must also enter the field of investigation....

James Law, 1896
making it possible to attract highly qualified Ph.D. candidates to the department.

The increased stipend for graduate students in the Field of Veterinary Medicine who hold the D.V.M. degree or other professional medical degrees is proving to be effective. Not only has the pool of applicants grown but also the proportion who hold professional degrees from colleges in the United States is steadily growing. Before the stipend was raised, in 1977, only seven of the twenty-eight graduate students with the D.V.M. degree were United States citizens. Of the thirty-seven with D.V.M. degrees enrolled this year, twenty-five are United States citizens — a dramatic rise from 7 percent to 68 percent.

The separation of fiscal and personnel responsibilities made it possible to devote extra attention during 1978–79 to affirmative action efforts. Some progress in achieving the college’s goal of increasing female and minority-group representation in the faculty and staff has been made. Although thorough searches for such individuals continue, the recruitment program has had only limited success, primarily because the pool of qualified candidates remains drastically inadequate. The only route to alleviating that shortage is to increase the numbers of women and minority-group members who enroll in veterinary medical graduate programs, which points up anew the need for more minority-group students to enter the professional-degree programs, in preparation for graduate work. That, in turn, spotlights the importance of generating interest in the profession among young men and women in all segments of society during their secondary-school and early-college years. Accomplishing this many-faceted task will come about only through the combined efforts of many.

The development of special recruitment procedures to correct the lack of qualified applicants from minority groups is only one of the high-priority items on the agenda for staff in the office of student administration. With the need for financial aid among professional-degree candidates in the college approaching the $1 million mark, a great deal of staff time is being devoted to working out viable programs for dealing with that problem. The role of the college placement program also appears more important in light of the 1978 Arthur D. Little Company report on veterinary manpower needs in the decade ahead. All these responsibilities are being handled along with the usual admission activities, conducted with the help of twenty-one faculty members. During 1978–79, nearly 850 applicants were reviewed, detailed evaluations of about 650 were made, and the top 297 applicants were invited for interviews.

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Predoctoral Student Enrollment, 1978–79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>307</td>
</tr>
<tr>
<td>Candidates for the D.V.M. degree</td>
<td></td>
</tr>
<tr>
<td>Class of 1979</td>
<td>72</td>
</tr>
<tr>
<td>Class of 1980</td>
<td>76</td>
</tr>
<tr>
<td>Class of 1981</td>
<td>80</td>
</tr>
<tr>
<td>Class of 1982</td>
<td>79</td>
</tr>
<tr>
<td>Cornell undergraduates taking courses in the college (full-time equivalents)</td>
<td>68</td>
</tr>
</tbody>
</table>

[There were] large classes of nonveterinary students as well as those registered in the veterinary courses.

James Law, 1897
Table 9
Admission Summary, Class of 1983

<table>
<thead>
<tr>
<th>Area</th>
<th>Applicants</th>
<th>Interviewed</th>
<th>Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>425</td>
<td>209</td>
<td>58</td>
</tr>
<tr>
<td>Compact states</td>
<td>239</td>
<td>72</td>
<td>20</td>
</tr>
<tr>
<td>Other states</td>
<td>163</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>827</td>
<td>297</td>
<td>80</td>
</tr>
</tbody>
</table>

Table 10
Qualifications of Accepted Applicants, Class of 1983

<table>
<thead>
<tr>
<th></th>
<th>Number of Applicants</th>
<th>Percentage of Class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount of preveterinary preparation:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fewer than four years of college</td>
<td>5</td>
<td>6.3</td>
</tr>
<tr>
<td>Four years of college</td>
<td>61</td>
<td>76.2</td>
</tr>
<tr>
<td>More than four years of college (graduate level)</td>
<td>14</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>Institution previously attended:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornell University</td>
<td>30</td>
<td>37.5</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
<td>62.5</td>
</tr>
<tr>
<td><strong>Field of preparatory study:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal science (or related)</td>
<td>27</td>
<td>33.7</td>
</tr>
<tr>
<td>Biological sciences (or related)</td>
<td>44</td>
<td>55.0</td>
</tr>
<tr>
<td>Preveterinary</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Kind of preparatory animal practice:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large animal only</td>
<td>19</td>
<td>23.8</td>
</tr>
<tr>
<td>Small animal only</td>
<td>16</td>
<td>20.0</td>
</tr>
<tr>
<td>Both</td>
<td>45</td>
<td>56.2</td>
</tr>
</tbody>
</table>

Our chosen battlefield is one in which numbers count for less than quality....

James Law, 1896

Table 11
Geographic Distribution of Accepted Applicants, Class of 1983

<table>
<thead>
<tr>
<th>Legal Residence</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>58</td>
</tr>
<tr>
<td>Connecticut</td>
<td>6</td>
</tr>
<tr>
<td>Delaware</td>
<td>1</td>
</tr>
<tr>
<td>Maine</td>
<td>1</td>
</tr>
<tr>
<td>Maryland</td>
<td>1</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>2</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1</td>
</tr>
<tr>
<td>New Jersey</td>
<td>7</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1</td>
</tr>
<tr>
<td>Vermont</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 12
Interns and Residents, 1978–79

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interns</td>
<td>15</td>
</tr>
<tr>
<td>Residents</td>
<td>16</td>
</tr>
</tbody>
</table>
We are looking anxiously for the best men to fill the chairs.

James Law, 1896

Faculty and Staff Changes

New Appointments
Douglas F. Antczak, Assistant Professor
John G. Babish, Assistant Professor
Linda M. Brewer, Research Associate
Bradford O. Brooks, Postdoctoral Associate
Edgar T. Clemens, Instructor
Donald O. Cordes, Visiting Associate Professor
Robin D. Gleed, Assistant Professor
Walter J. Kochanek, Jr., Director of Fiscal Affairs
Norman A. LaFaunce, Assistant Professor
Leo E. LeJambre, Visiting Senior Lecturer
Patrick H. McCarthy, Visiting Associate Professor
Myrna G. Mandel, Lecturer
Michael Marmor, Assistant Professor
Hannu M. Mykkänen, Postdoctoral Associate
Robert W. O'Donnell, Research Associate
Erwin G. Pearson, Assistant Professor
Thomas J. Reimers, Assistant Professor
Charlene C. Sherwood, Assistant Librarian
R. David Smith, Assistant Professor
Maurice E. White, Assistant Professor
Melissa C. Woan, Postdoctoral Associate
Gregory A. Yost, Postdoctoral Associate
James F. Zimmer, Assistant Professor
Steven J. Zoha, Postdoctoral Associate

Promotions and Title Changes
William J. Arion, Professor (from Associate Professor)
Robin G. Bell, Assistant Professor (from Research Associate)
Jeffrey L. Berzon, Assistant Professor (from Resident)
S. Gordon Campbell, Professor (from Associate Professor)
John F. Cummings, Professor and Acting Chairman, Department of Anatomy (from Professor)
Elizabeth A. Dewey, Research Associate (from Graduate Assistant)
Joanne E. Fortune, Senior Research Associate (from Research Associate)
Robert B. Grieve, Research Associate (from Postdoctoral Associate)
Sajjad Haider, Senior Research Associate (from Senior Research Support Specialist)
Dorothy F. Holmes, Senior Research Associate (from Research Associate)
Ann Marcham, Assistant to the Dean and Director of Personnel (from Director of Fiscal and Personnel Affairs)
Karel A. Schat, Senior Research Associate (from Temporary Service Professional)
Danny W. Scott, Associate Professor (from Assistant Professor)
Fredric W. Scott, Professor (from Associate Professor)
Susanne K. Whitaker, Associate Librarian (from Senior Assistant Librarian)

Completed Terms
Daniel Cohen, Visiting Professor
Katsuya Hirai, Visiting Associate Professor
Chuanpis Soponhirunrux, Visiting Associate Professor
Krysztof H. Swiezynski, Visiting Associate Professor
Lola Winter, Lecturer

Resignations
Raymond Baggs, Senior Research Associate
R. Kenneth Braun, Associate Professor
Jack Brondum, Postdoctoral Associate
David B. Brunson, Assistant Professor
Robert M. Dyer, Instructor
Marion Georgi, Research Associate
N. Bruce Haynes, Associate Professor, Extension Veterinarian, and Director of Continuing Education
Richard E. Hoffer, Associate Professor
David C. Kradel, Associate Professor
Tsuneyuki Oku, Visiting Lecturer
Ronald D. Schultz, Associate Professor

Retirements
Mia Reinap, Librarian
John H. Whitlock, Professor (to Professor Emeritus)

Deaths
Cyril L. Comar, Professor Emeritus
Donald W. Baker, Professor Emeritus (May 1978)
The task of maintaining the standards for which the Flower Veterinary Library is known and respected around the country and the world requires more ingenuity each year as the twin squeeze of increased demand (more students, more faculty members, more information to be made available) and decreased resources (less buying power in the budget and restricted space) continues.

Some five hundred linear feet of shelving was freed during the year by moving nearly three thousand bound volumes (mostly pre-1940 nonveterinary titles) to the Annex Library, with another two hundred feet to become available in fall 1979 as additional materials (especially those duplicated in other campus libraries) were removed from the active stacks. The stored items are available upon request within twenty-four hours, and the sale of some materials provided about $2,000 for binding and replacement of missing journal issues.

The greatest pressure on the budget is coming from acutely increased prices of journal subscriptions. During the 1978-79 year 87 percent of the library’s acquisition budget was consumed in purchasing fewer than five hundred serial titles. This is in sharp contrast to the 1974-75 year, when nearly six hundred subscriptions were purchased with only 68 percent of the budget. Clearly, the budget increases are insufficient to keep pace with inflation. Steps are being taken to reduce the amount spent on periodicals by carefully scrutinizing use, need, and alternative sources in relation to cost so that new priorities may be set and the total number of subscriptions reduced. Until this is accomplished the amount of money available for bound volumes is further restricted.

The reduction in the buying power of available acquisition funds is reflected in reduced holdings in both bound volumes and periodicals.

---

**Table 13**

<table>
<thead>
<tr>
<th>Library Use, 1978–79</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>On campus</td>
<td></td>
</tr>
<tr>
<td>Reserve books (in-library use)</td>
<td>11,728</td>
</tr>
<tr>
<td>Books lent (home use)</td>
<td>16,527</td>
</tr>
<tr>
<td>Photocopy items provided (in lieu of loans)</td>
<td>9,335</td>
</tr>
<tr>
<td>Interlibrary</td>
<td></td>
</tr>
<tr>
<td>Books lent</td>
<td>68</td>
</tr>
<tr>
<td>Photocopy items provided</td>
<td>302</td>
</tr>
<tr>
<td>Books borrowed</td>
<td>48</td>
</tr>
<tr>
<td>Photocopy items received</td>
<td>444</td>
</tr>
</tbody>
</table>

**Table 14**

<table>
<thead>
<tr>
<th>Library Holdings, 1978–79</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bound volumes</td>
<td></td>
</tr>
<tr>
<td>At beginning of year</td>
<td>65,863</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>962</td>
</tr>
<tr>
<td>Less withdrawals</td>
<td>2,970</td>
</tr>
<tr>
<td>Periodicals and annuals</td>
<td>969</td>
</tr>
</tbody>
</table>
compared to the previous year. During the past five years the number of bound volumes has increased a bare 10 percent, and the number of periodicals has actually dropped more than 10 percent in the same five-year period. These decreases are particularly startling when viewed in light of the increased demand on the library for materials. Since 1974–75, library use has climbed an average of 30 percent; use in some categories has doubled, tripled, or increased four fold.

The retirement of Mia Reinap after twenty-six years of service and the resultant promotions and hiring of new personnel meant that changes had occurred in five of the seven full-time library positions in little more than a year. These disruptions set the stage, however, for an overall reorganization of resources and procedures that is resulting in increased efficiency. A long-range program to update inventories, review and redefine collection policies, pinpoint areas of special need, assess losses and develop plans for reducing them, revise card files and records, and establish guidelines for the maintenance of top quality in both the collection and services has been initiated.

Some new equipment and an additional staff member helped keep the clerical and technical operations of Biomedical Communications sufficient to support the large quantity of work done by that department. A total of nearly thirty-five thousand slides produced during the 1978–79 year reflects an increase of about 75 percent since the department’s first year of operation in 1974–75. Additional prints, negatives, and videotapes were also produced. A new large-screen video projector, purchased recently, makes it possible to present video material to large groups in the James Law Auditorium.

The college’s computer system, assigned increasingly broader roles in the five years since the Research Tower was opened for occupancy in 1974, was expanded again this past year. Basic packages were put into effect for pathology, the pharmacy, and student records, and three new computer-based services in support of the research needs of the faculty were developed. One of these enables an investigator to search the entire patient database of the hospital for correlations between problems presented, diagnoses made, procedures performed, drugs prescribed, and related characteristics of the patients, such as species, breed, sex, and age. Another service makes it possible to systematize studies of drug effects and interactions through use of a drug-coding scheme for the hospital pharmacy. The third is a version of a popular statistical package, designed to make it convenient for college faculty members to do many analyses of research data at a very economical cost on the college’s small research computer.

The exchange of ideas and techniques among those involved in designing and implementing medical computing systems is a vital element in keeping abreast of this rapidly developing field. During 1978–79, members of the college computing staff shared their experiences with visitors from the University of Pennsylvania, Michigan State University, Johns Hopkins University, and the United Nations, and by going to several universities to observe and discuss their procedures and ideas.

Welcome relief for personnel, as well as improved conditions for animals, equipment, and research projects, was provided during the heat of summer as the modernized cooling and ventilating systems throughout the college became operational. All phases of the project, designed to upgrade efficiency in heating and cooling as well as increase comfort, were to be finished by the start of the fall semester. Construction began on a large-animal sterile surgery to consist of an operating room and associated support spaces in the large-animal clinic area. The new suite should be completed, at a cost of $845,000, about one year after start of construction. An additional $200,000 is specified for equipment.

Two other needed structures are in the final design stage—a wing to be added to the James A. Baker Institute for Animal Health to hold small
laboratory animals used in cancer research and a large-animal isolation facility to provide increased protection against exposure of animal patients to contagious diseases of other patients. Construction of both facilities was scheduled to start in the fall of 1979 and be completed about a year later. The animal-holding wing of the Baker institute will be a one-story structure of about forty-eight hundred gross square feet and will cost about $570,000, of which $427,241 has been provided by the National Cancer Institute. The new isolation facility, consisting of about three thousand gross square feet, will include five isolation box stalls and associated service support areas. It will provide convenient access for large-animal patients and will be linked to the existing Poultry Virus Isolation Building by an enclosed corridor so that utilities and some support services may be shared by both.

A 36-by-150-foot barn for brood mares is being erected at Equine Research Park with funds contributed by individuals and groups interested in horses. It contains seventeen box stalls, a breeding area, and space for an office, laboratory, and mare palpation room.

A major visible alteration in the face of the college will occur some two years hence, when a proposed structure to hold electron microscopes and other scientific equipment that is particularly sensitive to vibration will be in the final stages. Funds for the design of the facility have been allocated by the state, and plans should be ready by spring 1980. In addition to being vibration-free, the structure must be close to the Research Tower and may be designed to serve as an indoor pedestrian link between it and the Schurman complex. This would constitute a significant improvement in safety, for that heavily traveled space is particularly treacherous in winter months.

Two sets of plans for the buildings have been submitted, one... for $160,000 and the other, more comprehensive... for $270,000...

James Law, 1895
It will pay a large and populous state to maintain a high class veterinary college, provided that it will utilize the valuable graduate product in needed services for the people....

James Law, 1900
Tables 15 and 16 are summaries of the income and expenditures of the New York State College of Veterinary Medicine for the fiscal years July 1, 1977, through June 30, 1978, and July 1, 1978, through June 30, 1979. These figures do not include expenditures for indirect costs, estimated for 1978–79 at $2,773,228 for general support services and $2,314,854 for salary fringe benefits.

### Table 15
**Source of Funds**

<table>
<thead>
<tr>
<th>Source</th>
<th>1978–79</th>
<th>1977–78</th>
</tr>
</thead>
<tbody>
<tr>
<td>State appropriation</td>
<td>$5,614,434</td>
<td>$5,023,200</td>
</tr>
<tr>
<td>Federal appropriation</td>
<td>138,600</td>
<td>70,063</td>
</tr>
<tr>
<td>Grants and contracts</td>
<td>5,610,392</td>
<td>5,091,527</td>
</tr>
<tr>
<td>College income</td>
<td>3,765,752</td>
<td>2,984,876</td>
</tr>
<tr>
<td>Total</td>
<td>$15,129,178</td>
<td>$13,169,666</td>
</tr>
</tbody>
</table>

### Table 16
**Use of Funds**

<table>
<thead>
<tr>
<th>Use</th>
<th>1978–79</th>
<th>1977–78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction and departmental research</td>
<td>$2,564,974</td>
<td>$2,352,107</td>
</tr>
<tr>
<td>Teaching Hospital</td>
<td>2,298,760</td>
<td>1,931,744</td>
</tr>
<tr>
<td>Organized research</td>
<td>5,789,058</td>
<td>4,619,173</td>
</tr>
<tr>
<td>Extension and public service</td>
<td>2,923,377</td>
<td>2,848,204</td>
</tr>
<tr>
<td>Academic support</td>
<td>146,254</td>
<td>294,456</td>
</tr>
<tr>
<td>Student services</td>
<td>159,966</td>
<td>79,536</td>
</tr>
<tr>
<td>Institutional support</td>
<td>962,495</td>
<td>826,845</td>
</tr>
<tr>
<td>Plant maintenance and operation</td>
<td>182,828</td>
<td>162,012</td>
</tr>
<tr>
<td>Student aid</td>
<td>101,466</td>
<td>55,589</td>
</tr>
<tr>
<td>Total</td>
<td>$15,129,178</td>
<td>$13,169,666</td>
</tr>
</tbody>
</table>

### The College Dollar

- **A.** State appropriation (37.1%)
- **B.** Federal appropriation (0.9%)
- **C.** Grants and contracts (37.1%)
- **D.** College income (24.9%)

#### Where it came from

- **E.** Instruction and departmental research (17.0%)
- **F.** Teaching Hospital (15.2%)
- **G.** Organized research (38.2%)
- **H.** Extension and public service (19.3%)
- **I.** Academic support (1.0%)
- **J.** Student services (1.0%)
- **K.** Institutional support (6.4%)
- **L.** Plant maintenance and operation (1.2%)
- **M.** Student aid (0.7%)
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New York State College of Veterinary Medicine

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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
Walter J. Kochanek, Jr., Director of Fiscal Affairs
Ann Marcham, Assistant to the Dean and Director of Personnel
Howard Moraff, Director of Computer Resources

We must jealously guard the good we have secured if we would leave the profession in the position to which it has a right....

James Law, 1896
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Edward J. Trethaway, Assistant to the Dean for Public Affairs

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Note: The persons listed on pages 32–34 were holding the indicated offices on June 30, 1979. Two appointments to the State University of New York Board of Trustees were pending.
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, Jr., 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 (1978), 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.

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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.

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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. Charles E. Short
426 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 E. Schryver
516 Research Tower
Telephone: 256-7656

Extension Service (Veterinary)
Dr. Jeffrey Davidson
205 Diagnostic Laboratory
Telephone: 256-6541

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 L. Boyer, Jr.
220 Research Tower
Telephone: 256-7787

Large-Animal Consulting Service
Dr. Francis H. Fox
G126
Telephone: 256-6545

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

The pages on which the James Law quotations appear in this report are given below, followed by the page number, in parentheses, of the Leonard book from which they were taken: 6 (235); 9 (224); 10 (241); 11 (224); 12 (232); 13 (226); 15 (241); 16 (226); 17 (226); 18 (225); 19 (217); 23 (187); 24 (235); 25 (224-25); 26 (187); 27 (217); 29 (176); 30 (249); 33 (232)

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