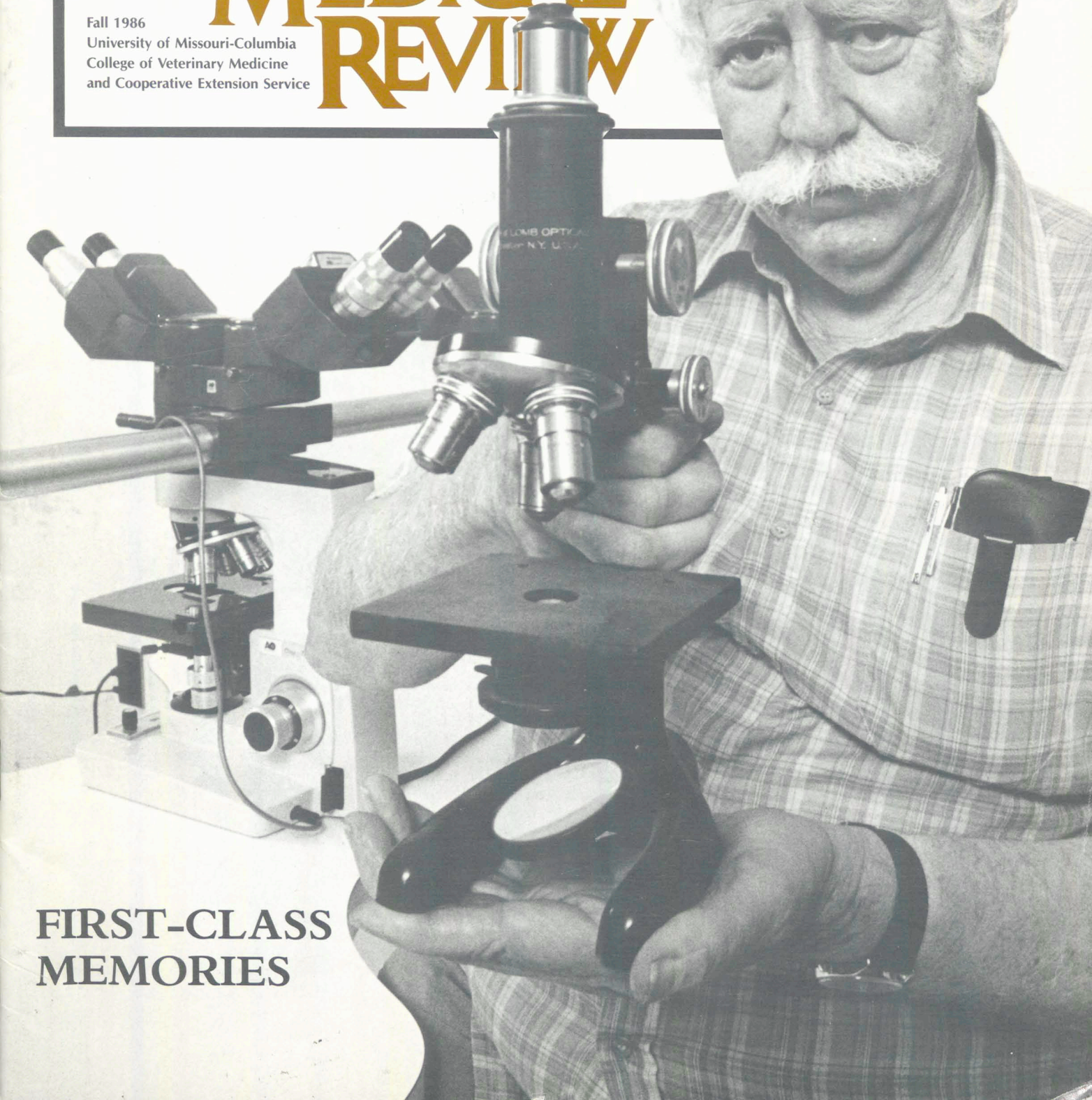




VETERINARY MEDICAL REVIEW

Fall 1986
University of Missouri-Columbia
College of Veterinary Medicine
and Cooperative Extension Service



**FIRST-CLASS
MEMORIES**



DEAN'S COLUMN

Thirty-eight women and 38 men have been chosen for the class of 1990.

They will begin their studies in August. Last year the entering class had 35 men and 41 women. Nationwide, the total U.S. enrollment in colleges of veterinary medicine is 8,863. Of those, 51 percent are women.

Facilities assessment

Dr. Tom Mason, program and space-needs consultant, has submitted a preliminary report comparing the college with peer institutions. The report indicates that, in order to be competitive, major remodeling and construction will be needed in upcoming years.

Veterinary manpower issue

The veterinary manpower issue is a subject of considerable discussion, particularly relating to curriculum adjustments and class size. At this point, we have not requested a recommendation for a change in class size. Most of the essential resources of the college are needed regardless of the number of students.

The general public sees our major mission as providing training for qualified people who wish to enter veterinary medicine. We fear a reduction in class size could undercut that obligation. It also could be dangerous at a time when public support and appreciation for the college has considerable momentum, and when there is a movement in Missouri to increase deserved and needed support.

This does not mean that the issue is closed. But it does mean we think that currently sought program improvements should be implemented

before the question of class size reduction is pursued vigorously.

New faculty

Dr. Laura Mills has joined the faculty as an assistant professor in large-animal medicine. Read about her education and experience on Page 20.

Departing faculty

Dr. Myron Tumbleson left to become associate dean for research at the University of Illinois, and Dr. Cynthia Wheeler, ophthalmologist, returned home to Michigan State University.

Horse racing

The approval of pari-mutuel horse racing in Missouri holds promise of future support for equine programs at your college. Ten percent of revenues from horse racing will be divided between the College of Agriculture and the College of Veterinary Medicine for equine programs. If the Diagnostic Laboratory becomes involved in drug testing, that could also have a valuable impact on teaching, research and extension programs. Although the impact of pari-mutuel racing is still unknown, it is obvious that a major overhaul of the college's equine program is needed.

There is a complete list of alumni functions for the summer and fall on Page 22. We hope to see you at one or more.

Best regards,

Robert F. Kahrs

ROBERT F. KAHRS, Dean

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ON THE COVER: Dr. Arthur Case, professor emeritus, was one of the College of Veterinary Medicine's first faculty members. He reminisces about facilities, equipment and students in First-class memories, Page 3.

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Forty years ago, the first class of veterinarians began studies at Mizzou. Pictured in the 1950 Savitar as seniors are, first row, from left: James K. Farrell, James R. Seelbach, William J. Minor, James C. McCrea, J.L. Hartley. Second row: Paul H. Thom, Thomas D. Wills Jr., Warren C. Schilb, Harold C. Edkhoff, Joseph C. Hughes, Edmund J. Krautmann, Wesley Crenshaw. Third row: William L. Schondelmeyer, Warren D. Brainard, James H. Evans Jr., John B. Simpson, Harold W. Pilcher, Maurice Miller, Gerald L. McKee. Fourth row: Floyd E. Coley, Ray D. Ledgerwood, Robert P. Jones, George Knappenberger, Paul Zollman, Marshall D. Conrad, Elmer B. Powell Jr.

FIRST-CLASS MEMORIES

BY ROBERT KOHLMAN

WHEN Dr. Arthur Case arrived at the University in 1947 to teach veterinary medicine and surgery, he was expecting primitive conditions. But he wasn't expecting to perform surgery in a tent.

World War II had just ended. Thousands of veterans were flocking to school on the new GI bill, which provided tuition, books and about \$65 a month. The University was scrambling to provide housing, facilities and faculty for the new students. Money was scarce. In 1946, the first class of veterinary medical students entered the University.

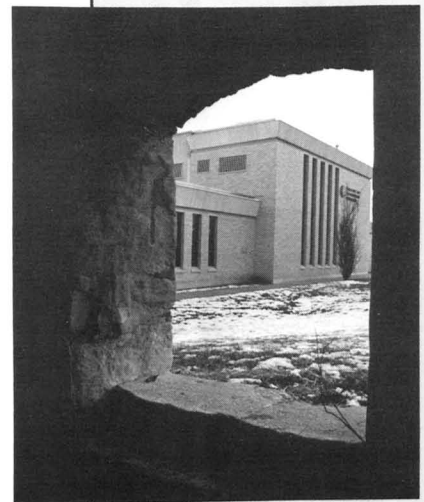
Veterinary medicine—which remained a department of the College of Agriculture until it was officially

recognized as a school in 1949—had little money, few instructors and no clinical facilities. For the first two years of its doctoral work, the original class had no practical training.

As a stopgap measure, Case was brought from The Ohio State University to serve as the acting chairman of veterinary medicine and surgery. Plans were made to open a clinic inside an Army surplus tent.

“When I first came here, I thought we were going to have to operate in a circus tent,” says Case, now a professor emeritus. “Of course I vetoed that.”

Facing faculty opposition, the Board of Curators changed its mind about the tent and spent \$77,000 to move



This photo gives a view from the old to the new. The College of Veterinary Medicine is framed by the inside of an old silo that used to be connected to the Horse Barn.



Dr. A.H. Groth, the first dean and an accomplished wrestler, did fancy foot-work mollifying veterinarians who thought graduates would take their jobs, and the College of Agriculture that feared the new college would take its funding.

another Army surplus building to campus to provide classroom, clinic and operating space. It was later named the Veterinary Science Building, and faculty were assured it was only a temporary facility. It is still in use today, but is slated for replacement, says Associate Dean Kenneth Niemeyer.

"There's no firm schedule for its demolition, but a recent facilities assessment does recommend that it be torn down." The legislature this spring recommended \$200,000 for planning building projects, but the governor later vetoed it.

During the first years, the college operated almost exclusively with Army surplus materials. Of its first X-ray machines that saw action during the war, Case says, "They were obsolete when we got them, and we used them until 1962."

Although the conditions of the college were primitive, both students and faculty adjusted. There was neither air conditioning nor heating in some of the laboratories.

"We didn't have a walk-in cooler in the anatomy room," says James H. Evans, DVM '50, of St. Charles, Mo. "All we could do was pump (the cadavers) full of formaldehyde and scrape the maggots off every morning."

During the summer, the temperature inside the anatomy building often rose above 100 degrees Fahrenheit. To the outsider, the heat and stench was unbearable, but the students got used to it.

"When veterinary students would walk around campus, everyone would detour around us," Evans says. "We were quite known for our odors."

"If we got really hot, we would go next door to the Dairy Science building and buy ice cream," says James C. McCrea, DVM '50, of Platte City, Mo. "We would all stand around eating ice cream with our rubber gloves on and no one would think anything about it."

Eager for an education, students adjusted to the make-do facilities. But the American Veterinary Medical Association had serious reservations about the college's facilities and lack of money. "Accreditation was a key problem at the time," Case says. "The College of Agriculture felt Veterinary Medicine didn't need to be a separate college, but the AVMA said there needed to be a separate school and dean, or else. In the end, they gave us provisional recognition on the promise of Missouri's doing better than it had."

The college was first fully accredited in 1977, but its status was reduced to limited accreditation in November 1984 due to deficiencies in finances, facilities, equipment and faculty numbers. Full accreditation may be restored if deficiencies are corrected by 1989.

Missouri legislators last year boosted the college's base state appropriation by approximately \$1 million a year; the college has added both faculty and equipment since losing full accreditation.

Dean Robert Kahrs tackled the problems head-on in the tradition of the college's first dean, Dr. A.H. Groth, an accomplished wrestler. In the college's genesis, veterinarians in the state were worried that new graduates would take their jobs, and the College of Agriculture was worried that the new college would take its funding. Groth tried to mollify both parties while still pressing the University's administration and the General Assembly for more money.

"Dean Groth would go out and fight for whatever we needed," Case says. "They said he didn't get those cauliflower ears playing bridge."

"Of course, he didn't always get it," Case adds. "There were a lot of disappointments. This college was started on a shoestring, and not a very long one at that."

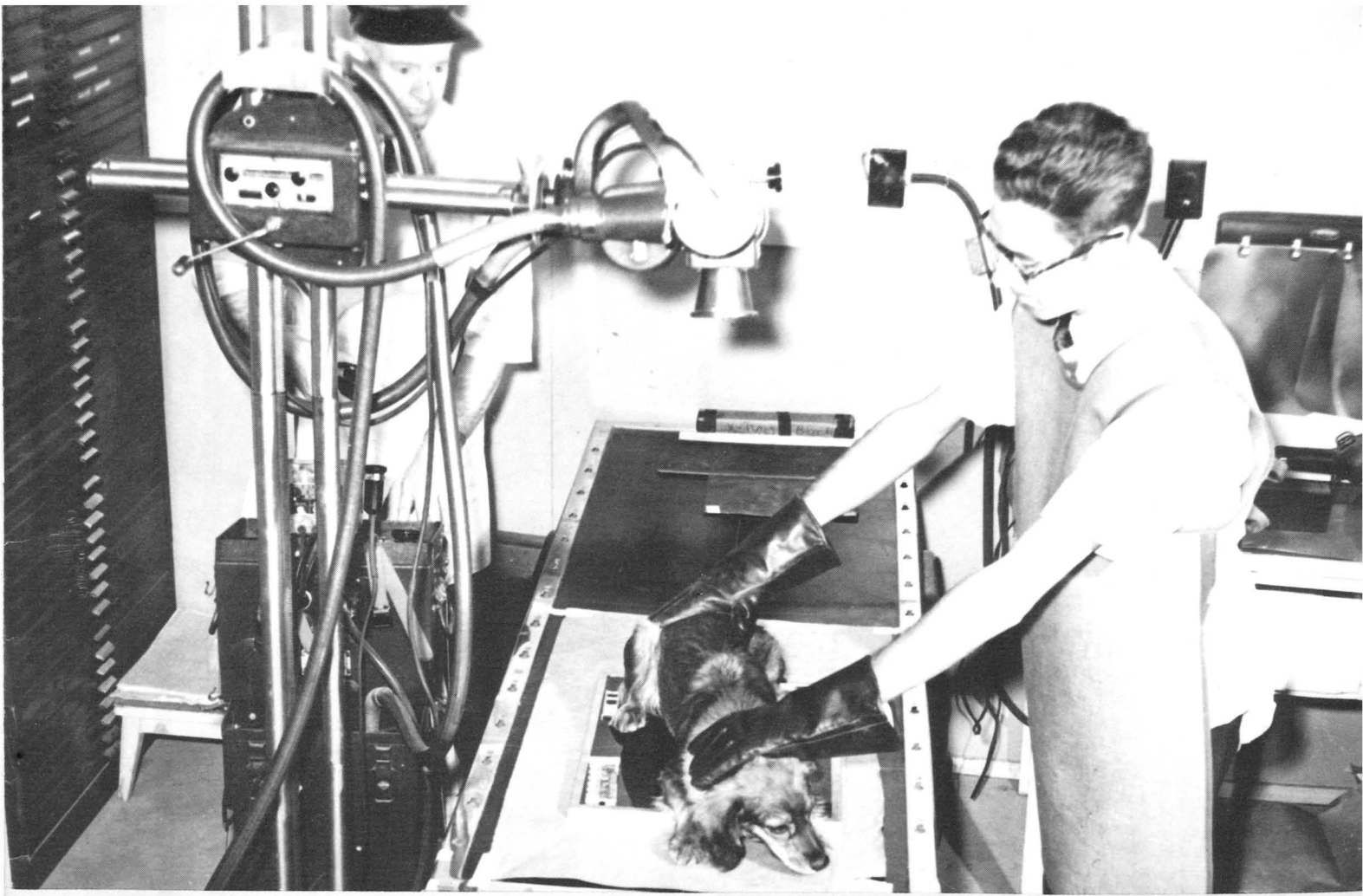
But somehow the college survived. Trying to establish it "felt like swimming up a rapid river doing the backstroke. Slow but steady progress," Case says.

The maturity of the first class helped the fledgling college push ahead. Only one member of the 28-member class had not served in the



In the college's beginning, both buildings and equipment were U.S. Army surplus. The pharmacy, above, was located in such a facility, later named the Veterinary Science Building. It's still in use today, but is slated for replacement. At right, Professor Emeritus Arthur Case, in background, watches as a student examines a dog with Army surplus radiology equipment.

PHOTOS COURTESY OF
UNIVERSITY ARCHIVES
SAVITAR
DR. ARTHUR CASE
STUART T. WAGNER



At left, professors and students study a dog cadaver in an anatomy lab. "We didn't have a walk-in cooler in the anatomy room," says James H. Evans, DVM '50. "All we could do was pump (the cadavers) full of formaldehyde and scrape the maggots off every morning." Above, Connaway Hall pictured in 1950 housed the College of Veterinary Medicine.



war; most were commissioned officers.

"When we graduated, most of the boys in our class were all over 30," says McCrea, who served in the Army in Europe. Fellow classmate Evans was also in Europe, serving in the field artillery and in Gen. George Patton's headquarters. A fighter pilot, the late Elmer "Bud" Powell Jr., DVM '50, of Phoenix, Ariz., survived the infamous Bataan Death March.

"Many of these people were my age or older," Case says of the first class. "These fellows were veterans—most were field grade officers—and they knew what they were about. They weren't going to let any chances get away from them." All a professor had to do was give them an assignment, and they would do it, Case recalls. They were used to following orders.

"We weren't a class of frat boys messing around," Evans says. "We were not interested in dating and college life. We had a different outlook on life." Many worked while in school, most were married and most hailed from rural Missouri.

"We were a class of grown men, there to get an education," he says. "We worked hard. People later said we were the best class they ever had."

At times it felt like one big family. "It was just like having brothers, only we were a lot closer than a lot of brothers," Evans says. "We were together eight hours a day for four years. You get close when you spend that much time together. We still see each other quite often."

That brotherhood extended to the faculty as well. Many of the instructors were scarcely older than their students.

"They would come back to the school at nights if we had problems," says Layton C. Jackson, DVM '51, of Fort Smith, Ark.

Says McCrea, "We had a bunch of wonderful instructors, people who were really devoted. A lot of them went on to become administrators at other colleges.

"We turned out a bunch of good general practitioners, and that speaks highly of the faculty."

For students, courses on poultry postmortem, hog cholera and cow pox meant an opportunity for research and service according to the Veterinarian's Creed: "To be merciful and humane, preventing needless suffering among dumb beasts." In the college's early years, classes were all male and limited to 30 students. This fall's entering class of 76 students is roughly half women, half men.

By Gerald M. Buening, Robert B. Miller, Robert F. Solorzano and Manuel J. Torres-Anjel

Prevalence of anaplasmosis in Missouri

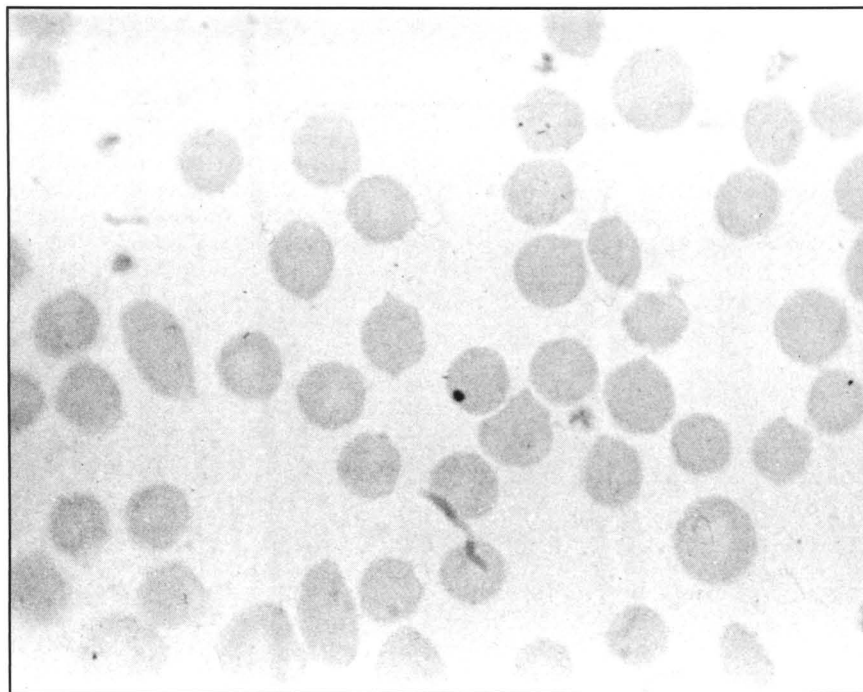
Anaplasmosis is an infectious disease of adult cattle caused by the organism *Anaplasma marginale*, which invades the red blood cells (Figure 1). Ticks are the only proven biological vector, or host, that is necessary for the organism to complete its life cycle. Ticks are not biological vectors in Missouri.

Horseflies and eye gnats are probably mechanical vectors that transmit the disease-producing organism, but are not required for its life cycle. Horseflies are probably the major mechanical vector in Missouri. Studies at Mississippi State University show that anaplasmosis can be transmitted from infected calves to non-infected calves with as few as 10 horsefly bites. The horseflies also can transmit the disease for 60 minutes after a meal of blood. In addition, blood-contaminated instruments, such as needles and dehorning tools, can transmit the organism from one animal to another.

The reservoir, or source of infection for non-infected cattle in Missouri, is probably carrier cattle, those cattle that have had anaplasmosis but have recovered. In the western United States, wildlife also appear to be reservoirs of infection, but white-tailed deer in Missouri are not a significant reservoir of anaplasmosis (Mass, Buening and Porath).

Anaplasmosis is a cyclical disease with outbreaks every five to seven years. The stages of the disease in an individual animal are presented in Table 1. The cycles are caused by the gradual buildup of non-infected cattle, which then become infected, causing the visible outbreak and also reducing the number of unexposed cattle that can be infected in the next few years. Economic losses result from decreased milk production, severe weight loss, poor reproductive ability, abortion and sometimes death. Annual losses in the United States have been estimated at \$100 million.

In 1973, a representative statistical sampling of mature slaughter cattle showed that 13 percent of all cattle in Missouri had been infected at some time. The objective of the pres-



Magnification 1000X. The *Anaplasma marginale* is located at the periphery of the infected erythrocytes (Giemsa stain).

ent study was to determine the current prevalence of anaplasmosis in beef herds in Missouri.

Collection of samples

The samples were acquired from the personnel of the Missouri State Brucella Diagnostic Laboratory. Every third blood sample was selected from routine samples submitted from Missouri. Most of the samples were from beef herds. For confidential reasons, the samples were given an identification number and only the county of origin and herd were recorded; the owner remained unknown. Samples from sale barns, *Brucella* reactor herds and duplicate sampling were eliminated from the study. Most were collected from January 1984 through July 1984. This is not the hersefly season.

Serological test procedure

Serum samples were coded and

identified by batch and tube number and stored frozen at -20 C. Samples were thawed and warmed to room temperature prior to testing. The presence or absence of *Anaplasma marginale* antibodies was determined by the Standard Anaplasma Card Agglutination Test. A known positive test serum was included on each card. The results were recorded, compiled and data processed. The data was entered and sorted in a microcomputer spread sheet program, and graphs were generated.

Results

Geographical presentation of the comparison sample size per county related to beef cattle numbers per county is represented in Figure 2. This graph illustrates that the sampling size was adequate except in counties with very small cattle populations. In Figure 3, the relation-

ship of beef cattle numbers to prevalence is shown. The graph shows that prevalence of anaplasmosis is not related to cattle numbers. In Figure 2, the sample size was multiplied by 100 for graphing purposes.

A total of 9,800 serum samples were tested and the prevalence rate of anaplasmosis in Missouri based upon CA test results was 7.08 percent. A summary of the data is presented in Table 2. A map of Missouri with the prevalence rate (percentage positive) for each county is presented in Figure 4.

Discussion

Bovine anaplasmosis has been a significant infectious disease problem in Missouri. The overall prevalence of bovine anaplasmosis in Missouri has declined from the 13 percent reported in 1973, the date of the last serological survey (1973). However,

individual counties have high prevalence rates. The prevalence of bovine anaplasmosis in Missouri in 1984-85 appeared to be approximately 7 percent, based upon the results of the present study. The reasons for the apparent decline are unknown. This could be related to the cyclic nature of the disease, or to improved prevention and control measures.

Acknowledgements

The authors thank Dr. Jim Badger and staff of the Missouri State Brucella Diagnostic Laboratory for assisting in the selection of samples. We wish to acknowledge the technical assistance of Karen McLaughlin. The Anaplasma Card Agglutination test kits were provided by the U.S. Department of Agriculture, Veterinary Services, Ames, Iowa. This study was supported in part by the USDA Animal Health Formula Fund.

Map with percentage positive prevalence rate for each county

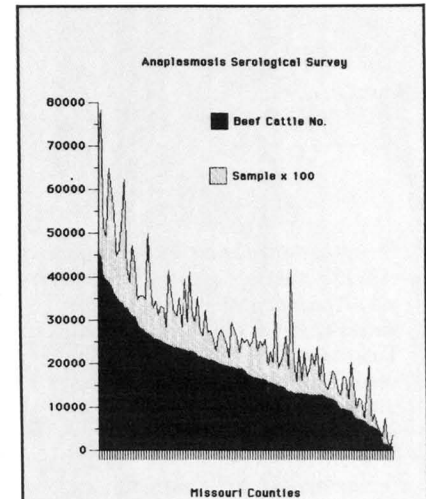
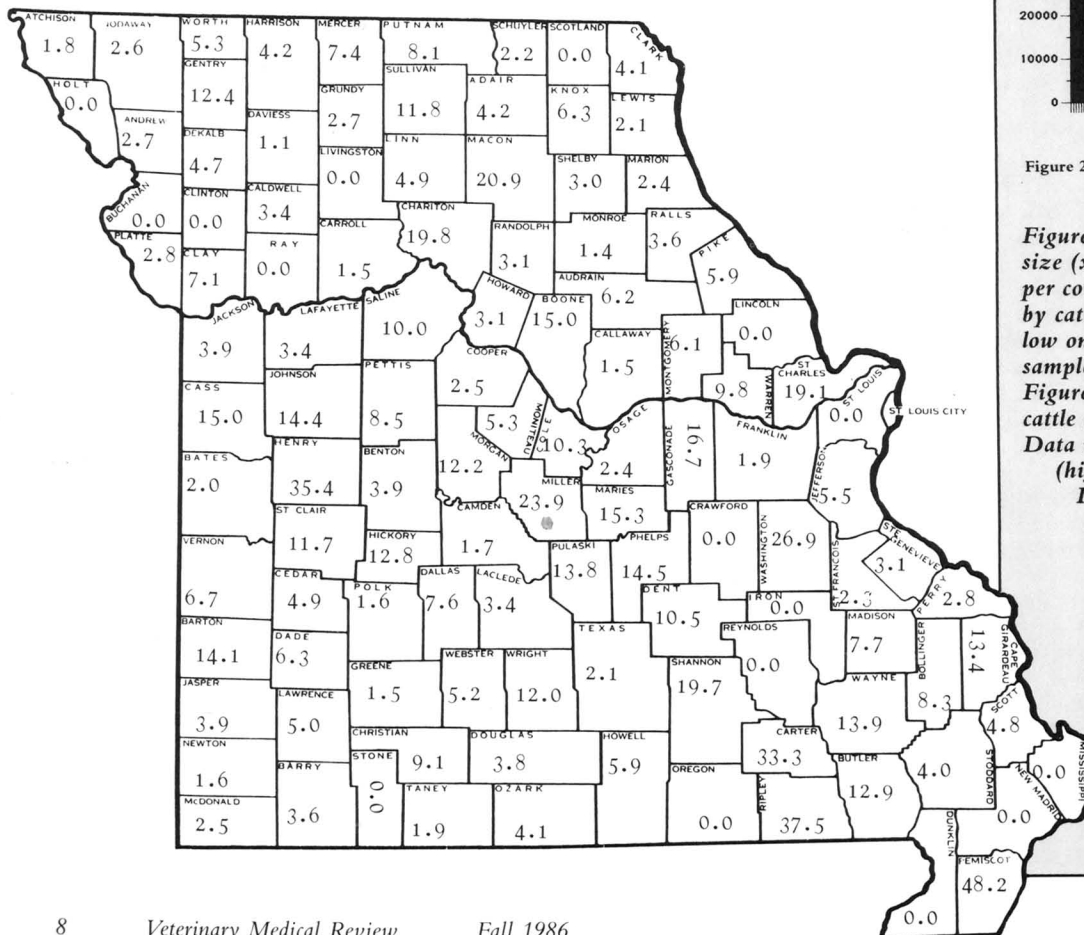


Figure 1

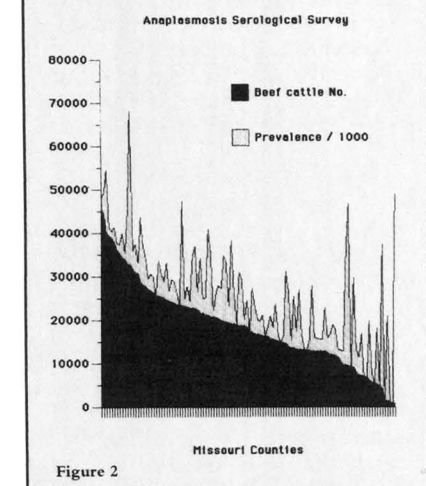


Figure 2

Figure 1: Relationship of sample size (x100) to beef cattle numbers per county. The data was sorted by cattle number (high on left, low on right). Illustrates adequate sample size for most counties. Figure 2: Relationship of beef cattle numbers to prevalence. Data was sorted by cattle number (high on left, low on right). Illustrates that prevalence is not related to cattle number.

Table 1. Stages of anaplasmosis infection.

Stages of Disease	Length	Symptoms	Serology*	Identification
Unexposed	—	—	negative	serology during non-vector season
Incubation	3-8 weeks-depends on dose	none	negative	serology
Development	4-9 days	fever, anemia, icterus	positive	both blood smear** and serology
Convalescent	few weeks to several months	varies with animal	positive	blood smear and serology
Carrier	life of recovered animal (untreated)	none	positive	serology

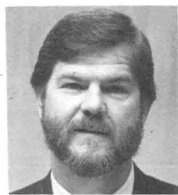
* A serological test identifies antibodies in blood serum.

** A blood smear will show the anaplasmosis organism in the red blood cells.

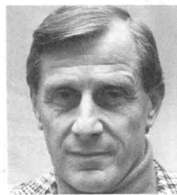
Table 2. A summary of Standard Anaplasma Card Agglutination Test results on bovine serum samples collected in Missouri in 1984.

1. Number of counties:	114	
2. Beef cattle numbers (Jan. 1985)	2,122,000 (800-45,600)*	
		<u>average/county</u>
3. Herds sampled:	1,364	12
4. Total samples:	9,800	86
5. Positive samples:	694	6
6. Negative samples:	9,106	80
7. Prevalence rate:	7.08% (0.0%-48.15%)*	

* Range of county values



Adams



Addinger



Amann



Aronson



Batchu



Berg



Besch-Williford



Bierschwal



Blenden



Bojrab



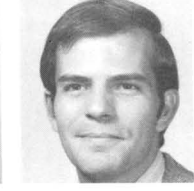
Boyd



Braun



E.M. Brown



T. Brown



Buening



Carson



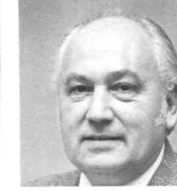
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Collier



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Corwin



Cowart



Creed



daSilva Curiel



Davis



Dean



Fales



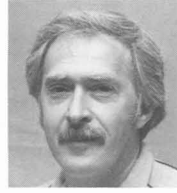
Ganjam



Gibson



E.M. Green



T.J. Green



Guilford



Hahn



Hale



Hogan



Hurst



Huyke



Jergens



Jones



Kahrs



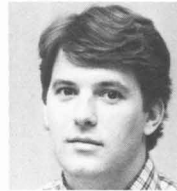
Kelley



Kier



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Knapp



Knowles



Korthuis



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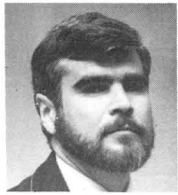
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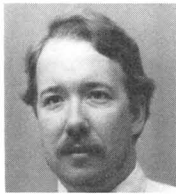
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Laughlin



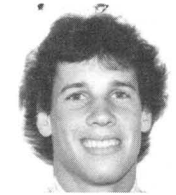
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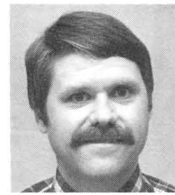
Lozier



MacFadden



Marks



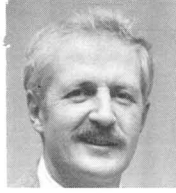
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McClure



McCune



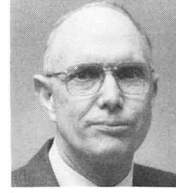
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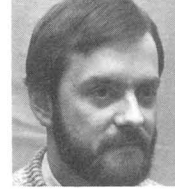
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Miles



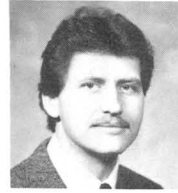
R.B. Miller



R.E. Miller



Mills



Moore



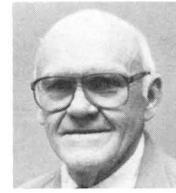
Morehouse



Moseley



Mrema



Nelson



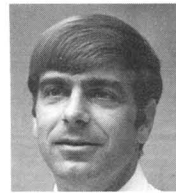
Niemeyer



O'Brien



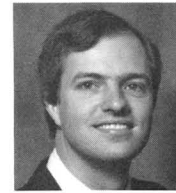
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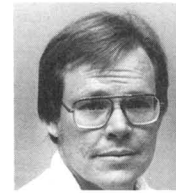
Ortenburger



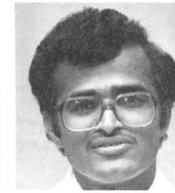
Phillips



Pope



Raisbeck



Reddy



Riley

cine and surgery; DVM, Colorado State University.

Karen E. MacFadden, intern, veterinary medicine and surgery; DVM, North Carolina State University.

Stanley L. Marks, intern, veterinary medicine and surgery; BVSc, University of Pretoria.

Curt Matherne, research associate, veterinary pathology; DVM, Louisiana State University.

Dudley L. McCaw, assistant professor, veterinary medicine and surgery; DVM, University of Illinois.

Robert C. McClure, professor, veterinary biomedical sciences; DVM, Iowa State University; PhD, Cornell University.

Emmett McCune, professor, veterinary microbiology; DVM, MS, University of Missouri-Columbia; PhD, University of Minnesota.

Ronald M. McLaughlin, director of laboratory animal resources; DVM, MS, Iowa State University.

Marilyn G. Mikiciuk, resident, veterinary medicine and surgery; DVM, Michigan State University.

Kristina Miles, resident, veterinary medicine and surgery; DVM, Texas A&M University.

Robert B. Miller, associate professor, veterinary medicine and surgery; DVM, Kansas State University; MS, PhD, University of Missouri-Columbia.

Robert Eric Miller, adjunct assistant

professor, veterinary medicine and surgery; DVM, The Ohio State University.

Laurie L. Mills, assistant professor, veterinary medicine and surgery; DVM, Kansas State University; MS, University of Saskatchewan.

Cecil P. Moore, associate professor, veterinary medicine and surgery; DVM, University of Missouri-Columbia; MS, University of Wisconsin.

Lawrence G. Morehouse, professor of veterinary pathology and director of the Veterinary Medical Diagnostic Laboratory; DVM, Kansas State University; MS, PhD, Purdue University.

Bonnard L. Moseley, associate professor of veterinary pathology and extension veterinarian; DVM, MS, University of Missouri-Columbia.

John E.K. Mrema, research assistant professor, veterinary pathology; DVM, University of Nairobi; PhD, Colorado State University.

Clifton N. Murphy, instructor, veterinary medicine and surgery; DVM, University of Missouri-Columbia; MS, Colorado State University.

Stuart Nelson, professor, veterinary pathology; DVM, The Ohio State University; MS, PhD, Purdue University.

Kenneth H. Niemeyer, professor of veterinary medicine and surgery, associate dean; DVM, MS, University of Missouri-Columbia.

Dennis O'Brien, assistant professor, veterinary medicine and surgery; DVM, MS, PhD, University of Illinois.

LeRoy D. Olson, professor, veterinary pathology; DVM, University of Minnesota; PhD, Purdue University.

Arthur I. Ortenburger, assistant professor, veterinary medicine and surgery; DVM, Washington State University; MS, Michigan State University.

Michael Parker, research associate, veterinary pathology; DVM, The Ohio State University.

Patrick E. Phillips, resident, veterinary medicine and surgery; DVM, Kansas State University.

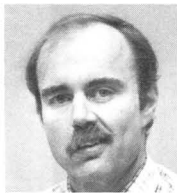
Eric R. Pope, assistant professor, veterinary medicine and surgery; DVM, MS, Auburn University.

Merl Raisbeck, assistant professor, veterinary pathology; DVM, Colorado State University; PhD, University of Missouri-Columbia.

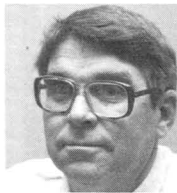
Chada S. Reddy, associate professor, veterinary biomedical sciences; associate professor, pharmacology, School of Medicine; DVM, Andhra Pradesh Agricultural University; MS, Alabama A&M University; PhD, University of Mississippi.

R. Ben Riley, assistant to the dean; BS BA, University of Missouri-Columbia.

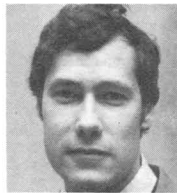
John J. Robertson, assistant professor, veterinary medicine and surgery; DVM, University of California.



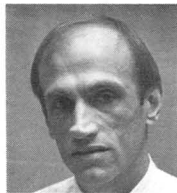
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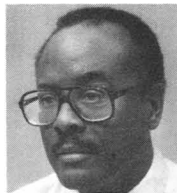
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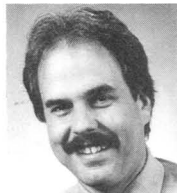
Roth



Rottinghaus



St. Omer



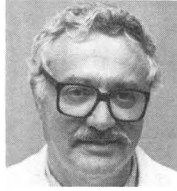
Schadt



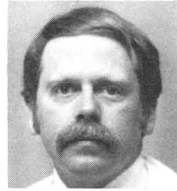
Schmidt



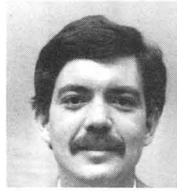
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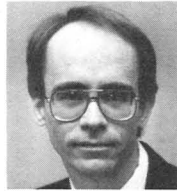
Solorzano



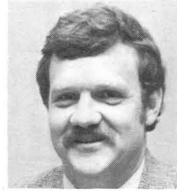
Steffen



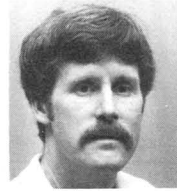
Stills



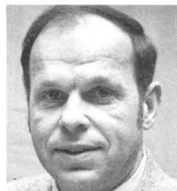
Stockham



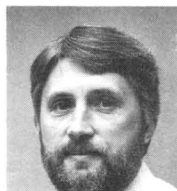
Thawley



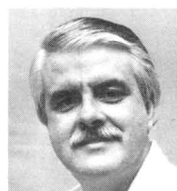
Thornburg



Thorne



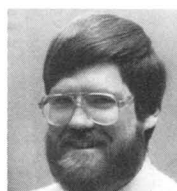
Tomlinson



Torres-Anjel



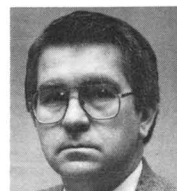
Tritzschler



J. Turk



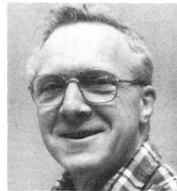
M. Turk



Wagner



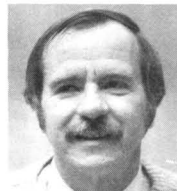
Ward



Weaver



Wolff



Youngquist

Bruce D. Rosenquist, professor, veterinary microbiology; DVM, Iowa State University; MS, PhD, University of Missouri-Columbia.

Jerome E. Roth, instructor, veterinary medicine and surgery; DVM, University of Missouri-Columbia.

George Rottinghaus, assistant professor, veterinary biomedical sciences (analytical chemistry); PhD, Iowa State University.

Joe Safron, research associate, veterinary pathology; DVM, University of Missouri-Columbia.

Vincent E. St. Omer, professor of veterinary biomedical sciences and associate professor of pharmacology, School of Medicine; DVM, University of Toronto; MS, University of Manitoba; PhD, University of Guelph.

James C. Schadt, assistant professor of veterinary biomedical sciences and research investigator at Dalton Research Center; MS, Northern Illinois University; MS, Indiana State University; PhD, Texas Tech University.

Donald Schmidt, professor, veterinary pathology; DVM, PhD, Michigan State University; MS, University of Minnesota.

Daniel Shaw, instructor, veterinary pathology; DVM, Kansas State University.

Craig Smith, resident, veterinary medicine and surgery; DVM, University of

Minnesota.

Robert F. Solorzano, professor, veterinary microbiology; MS, PhD, Pennsylvania State University.

Earl Steffen, research assistant professor, veterinary pathology; PhD, University of Missouri-Columbia.

H.F. Stills, assistant professor, veterinary pathology; DVM, The Ohio State University.

Steven L. Stockham, assistant professor, veterinary pathology; DVM, MS, Kansas State University.

David G. Thawley, associate professor, veterinary microbiology; BVSc, Massey University; PhD, University of Guelph.

Larry P. Thornburg, associate professor, veterinary pathology; DVM, Texas A&M University; PhD, University of North Carolina.

James G. Thorne, associate professor of veterinary medicine and surgery, director of continuing education and extension; DVM, University of Missouri-Columbia; PhD, University of Georgia.

James Tomlinson, assistant professor, veterinary medicine and surgery; DVM, University of Minnesota; M Vet Sci, University of Saskatchewan.

Manuel J. Torres-Anjel, associate professor, veterinary microbiology; DVM, National University of Colombia; MS, Michigan State University; MPVM and PhD, University of California-Davis.

Louis G. Tritzschler, professor of veterinary medicine and surgery, director of Equine Center; DVM, MS, University of Missouri-Columbia.

James Turk, associate professor, veterinary pathology; DVM, University of Missouri-Columbia; PhD, Washington State University/University of Idaho.

Margaret Turk, associate professor, veterinary pathology; DVM, University of Missouri-Columbia; PhD, Washington State University.

Joseph E. Wagner, professor and chairman of veterinary pathology; DVM, Iowa State University; PhD, University of Illinois; MPH, Tulane University.

Douglas Ward, assistant professor, veterinary medicine and surgery; DVM, Colorado State University; MS, Purdue University.

A. David Weaver, professor of veterinary medicine and surgery; BSc, Edinburgh University; Dr Med Vet, Hanover Veterinary College; PhD, University of Glasgow.

William A. Wolff, clinical associate professor, veterinary medicine and surgery; DVM, MS, Colorado State University.

Robert S. Youngquist, associate professor of veterinary medicine and surgery, director of graduate studies; DVM, Iowa State University.

Editor's note: Pictures of some faculty members were not available.

AROUND THE COLLEGE

Dr. Robert F. Kahrs, dean, was appointed to the National Advisory Council on Health Professions Education by Otis Bowen, the U.S. secretary of Health and Human Services. Kahrs, the only veterinarian on the 20-member council, will review grant proposals, analyze new congressional initiatives and advise the secretary on health professions education.

Dana Walker, VM4, won first place in the undergraduate division, and **Dr. Albert Jergens**, resident in medicine and surgery, won first place in the intern/resident/graduate student division during the Phi Zeta-Beecham Research Day. Walker won with her presentation of "Evaluation of an in vitro test for canine von Willebrand's disease recently made available for clinic use," and Jergens won for his presentation of "A novel method for the measurement of bleeding times in the dog."

Second place in the undergraduate division was awarded to **Kelly M. Lager**, VM2, for "The effects of xylazine, acetylpromazine and pentazocine on left ventricular pressure (LVP), myocardial segment shortening (SS) and coronary artery flow velocity (CFV) in ponies."

David Volz, VM2, won third place for "The effect of bovine paralytic rabies on plasma growth hormone in calves—a preliminary report."

Second place in the intern/resident/graduate student division went to **Dr. Sherril Green**, intern in medicine and surgery, for "Equine cerebrospinal fluid: reference values of normal horses for cerebrospinal fluid lactate." **Dr. Bruce L. Clark**, resident in medicine and surgery, was awarded third place for "Improving the application of milk progesterone enzymeimmunoassay for non-pregnancy diagnosis in dairy cattle."

New Phi Zeta initiates for the class of 1986 were: **Blaine Andrews**, **Miguel Colon**, **Jeri Davis**, **Amanda Donnelly**, **Brian Ermeling**, **Lisa Ferguson**, **John Fischer**, **Michael Hoff**, **Steve Howerton**, **David Maj-**

chrzak, **Bob McKee**, **Dwayne Miller**, **Lori Rohlffing**, **Dawn Sackman**, **Matt Sturmer**, **Tony Tavormina**, **Terriann Warhover** and **Mary Wernert**.

Initiates for the class of 1987 were: **Kevin Concannon**, **Craig Franklin**, **Marty Greenwell**, **Glen Grier**, **David Hall**, **Imogene Hemeyer** and **Diana Stuckey**. Resident initiates were **Dr. Bruce Clark**, **Dr. Doug Pernikoff** and **Dr. Rodney Straw**. Faculty members **Dr. Richard Adams** and **Dr. George Constantinescu** also were initiated.

Biomedical Sciences

Dr. H. Richard Adams, professor, presented "Ca⁺⁺ channel blocking drugs in shock and trauma: new approaches to old problems" at the meeting of the American College of Emergency Physicians March 18-20 in Orlando, Fla. He published the following: "Adrenergic aspects of endotoxin shock," with S.D. Izenberg and C.R. Baxter, as a chapter in RA Proctor (Series Ed), LB Hinshaw (Volume Ed), *Handbook of Endotoxins, Volume II: Pathophysiology of Endotoxin*, Elsevier Biomedical Publishers, Amsterdam, 145-172, 1985; "Development of myocardial dysfunction in endotoxin shock" with J.L. Parker in the *American Journal of Physiology*, 248:H818-H826, 1985; "Reduction of intrinsic contractile reserves of the left ventricle by *Escherichia coli* endotoxin shock in guinea pigs" with C.R. Baxter and J.L. Parker in the *Journal of Molecular and Cellular Cardiology*, 17: 575-585, 1985; and "Inotropic, chronotropic, and coronary vasodilator potency of forskolin" with S.L. Vaden in the *European Journal of Pharmacology*, 118:131-137, 1985; and "Isolated cardiac preparations: models of intrinsic myocardial dysfunction in circulatory shock" with J.L. Parker in *Circulatory Shock*, 15:227-245, 1985.

Dr. John F. Amann, assistant pro-

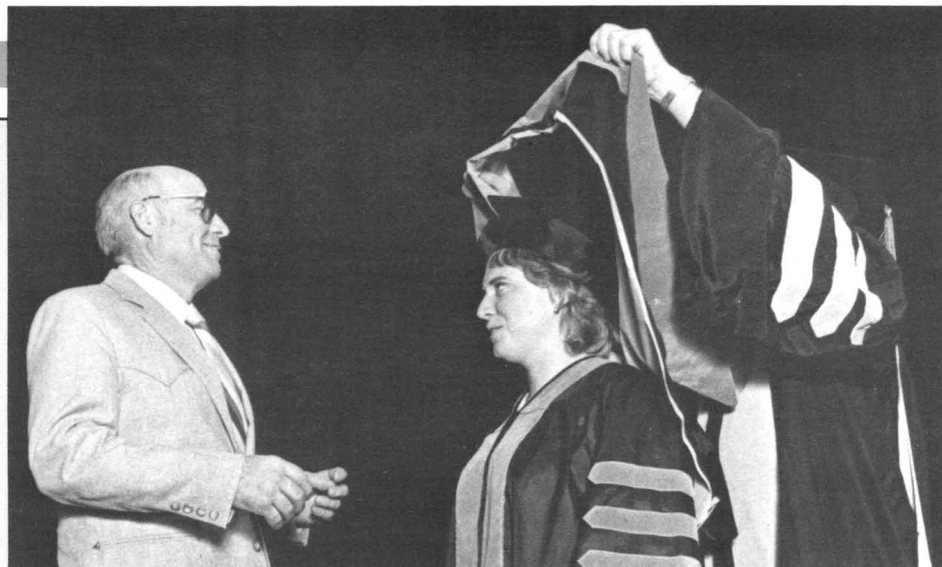
fessor, published "Myotonia in a Chow Chow" with J. Tomlinson and J.K. Hankinson in the *Journal of the American Veterinary Medical Association*, 415-417, 1985.

Dr. Ronald Korthuis, assistant professor, presented "ATP-MgCl₂ pretreatment or leukocyte depletion attenuate ischemia-reperfusion injury in skeletal muscle" at the Free Radicals in Biology and Medicine conference March 16-20 in Point Clear, Ala. At the same conference he also was the chairman of a session on "Role of oxygen radicals in ischemia-reperfusion injury." He published "Autoregulation of capillary pressure and capillary filtration rate in the rat hindquarter" with D.N. Granger, M.I. Townsley and A.E. Taylor in the *American Journal of Physiology*, 248:H835-H842, 1985. He published "Effect of arachidonic acid on the distribution of resistance in the canine lung" with M.I. Townsley and A.E. Taylor in the *Journal of Applied Physiology*, 58:206-210, 1985. He published "Macromolecule transport across the pulmonary microvessel walls" with A.E. Taylor and M.I. Townsley in *Experimental Lung Research*, 8:95-121, 1985. He published "Estimation of pulmonary capillary pressure using Swan-Ganz catheters" with A.E. Taylor, D.K. Cope, R.C. Allison and M.I. Townsley in the 1985 *Update in Intensive Care and Emergency Medicine*, edited by J.L. Vincent, Springer Verlag, Heidelberg, 127-132, 1985. He published "Promethazine or DPPD pretreatment attenuate oleic acid-induced injury in isolated canine lungs" with M.I. Townsley, G.E. Taylor and A.E. Taylor in the *Journal of Applied Physiology*, 59:39-46, 1985. He also published "Effects of temperature on ileal blood flow and oxygenation" with P.R. Kvietys, S.L. Harper and D.N. Granger in the *American Journal of Physiology*, 249:G246-249, 1985. **Dr. Harold Laughlin**, associate professor, presented "The effects of dipyridamole on the distribution of muscle blood flow during treadmill

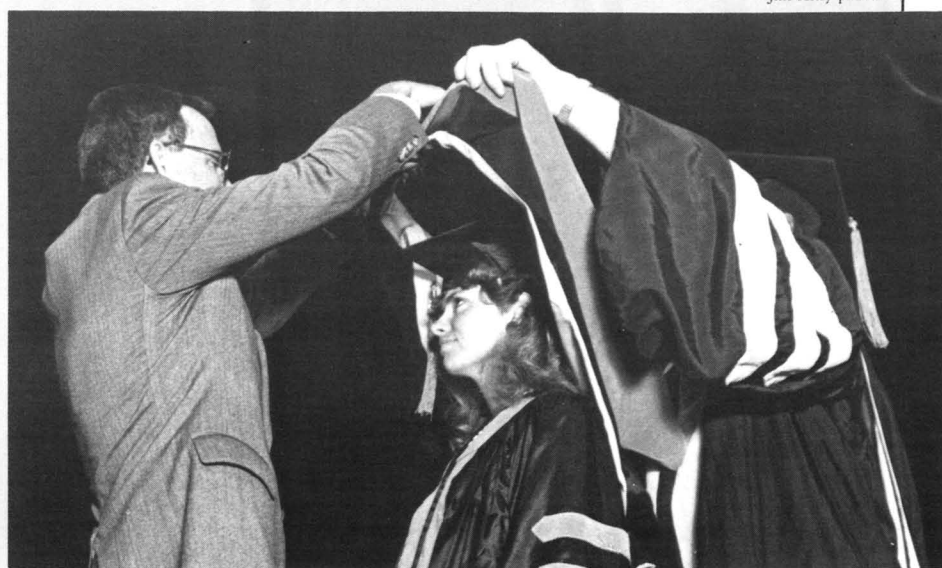
exercise in miniature swine" and "Maximal oxygen consumption and regional distribution of cardiac output in miniature swine before and after dipyridamole" at the annual meeting of the Microcirculatory Society and Federation for American Biology meetings April 11-18 in St. Louis. He published "Effects of exercise training on coronary transport capacity" in the *Journal of Applied Physiology*, 58: 468-476, 1985. He published "Muscle blood flow during locomotor exercise" with R.B. Armstrong in the *Exercise Sports Science Review*, 13:95-136, 1985. He published "Muscle blood flow patterns during exercise in partially curarised rats" with R.B. Armstrong and C.B. Vandenkakker in the *Journal of Applied Physiology*, 58: 698-701, 1985. He published "Muscle function during locomotion in mammals" with R.B. Armstrong in the *First Congress of Comparative Physiology and Biochemistry*, 59:1322-1328, 1985. He published "Metabolic indicators of fiber recruitment in mammalian muscles during locomotion" with R.B. Armstrong in the *Journal of Experimental Biology*, 115:201-213, 1985.

Dr. Robert C. McClure, professor, published "Normal and collapsed trachea in the dog: scanning electron microscopy study" with M.S. Dallman and E.B. Brown in the *American Journal of Veterinary Research*, 46(10):2110-2115, 1985.

Dr. Chada S. Reddy, associate professor, published "Municipal sewage sludge application on Ohio farms: health effects" with C.R. Dorn, D.N. Lamphere, J.V. Gaueman and R.R. Lanese in *Environmental Research*, 38:332-359, 1985. He published "Municipal sewage sludge application on Ohio farms: tissue, eta; residues and infections" with C.R. Dorn, D.N. Lamphere, J.V. Gaueman and J.D. Powers in *Environmental Research*, 38:360-376, 1985. Reddy published "Municipal sewage application on Ohio farms: estimation of cadmium intake" with C.R. Dorn in *Environmental Research*, 38:377-388, 1985.



Jim Kelly photos



Top photo, Allen Robinson, DVM '66, helps with hooding of Julie, DVM '86. Above, Eugene Donnelly, DVM, '66, hoods his daughter, Amanda, DVM '86.

Daughters follow in dads' footsteps

When veterinary students **Julie Robinson** and **Amanda Donnelly** received their gray hoods of graduation May 16, their families knew exactly how much work they put into becoming veterinarians.

Their fathers, Allen Robinson and Eugene Donnelly, both received their DVM's from the college in 1966 and now operate private practices in Missouri.

But both women say their fathers never pressured them into veterinary medicine.

"I considered a lot of other careers," Donnelly says, "but I always kept coming back to veterinary medicine."

Says Robinson of her parents, "They wanted to be absolutely certain

that it was what I wanted to do. When I saw it was what I wanted, they were behind me 100 percent."

The women chose the field after working in their fathers' practices. However, both decided not to go to work immediately for their fathers.

Robinson, whose father owns a practice in Palmyra, Mo., decided that the rigorous hours of a mixed practice were not for her. She plans instead to concentrate on equine medicine and eventually teach.

Donnelly, whose father owns a small-animal practice in Parkville, Mo., plans to work elsewhere before joining ranks with her father.

—Jennifer Hill



Stuart T. Wagner photos



In top photo, Dr. Harold E. Garner, left, received an award for his promising research on cardiovascular problems in equine. Dr. J.E. Wagner, right, presented the award. Above, Victoria L. Knight was recognized as the graduate with the highest grade-point average. Dr. Everett Aronson, right, was named outstanding teacher.

Top faculty and students honored

Top faculty honors at the annual Veterinary Medicine honors banquet May 15 went to **Dr. Everett Aronson**, assistant professor of veterinary medicine and surgery, and **Dr. Harold E. Garner**, professor of veterinary medicine and surgery.

Aronson was selected by the graduating class to receive the Norden Distinguished Teacher Award, a one-year honorarium of \$500 funded by Norden Laboratories. Garner received the Beecham Research Award for his research on cardiovascular problems in equine. The \$500 award is given to a faculty member whose research in a veterinary medicine area has promise of national recognition.

Victoria L. Knight, DVM '86, won the \$1,500 Dr. and Mrs. Leslie C. Murphy Scholarship Award for the graduating student with the highest grade-point average. Knight graduated magna cum laude with a 3.8 cumulative GPA.

Patricia Farrar, DVM '86, won the \$600 A.H. Groth Student Research

Award for the second year in a row. The award is for a third- or fourth-year student who has shown superior competency and outstanding future potential in veterinary medical research.

Martin G. Greenwell, **Glen C. Grier** and **David D. Martin**, all third-year students, won the Frank R. and Ina Hickerson Rhoads Scholarships. The \$4,000 awards are presented to third- or fourth-year students who rank in the upper 10 percent of their class and exhibit professionalism.

Third-year students **Shelley S. Bjorklund** and **Barry S. Kipperman**, and second-year students **Richard H. DiMarco** and **Teresa L. Keil**, received \$5,750 each as Hazel E. and Edgar F. Ebert Memorial Scholarship Fund winners. The award, based on financial need and scholastic ability, is presented to four students, two women and two men, beginning their third and fourth years.

He published "Effect of secalonic acid D on the developing fetal mouse palate" in *Toxicologist*, 5:187, 1985.

Dr. James Schadt, assistant professor, published "Endogenous opiate peptides may limit norepinephrine release during hemorrhage" with R.R. Gaddis in the *Journal of Pharmacology Experimental Theriogenology*, 232:656-660, 1985.

Dr. Vincent St. Omer, professor, published "Toxicity and interaction of topical organophosphate insecticide Dischlorvoscrotoxyphos and phenothiazine anthelmintic in sheep previously exposed to both drugs" with F.K. Mohammad in *Veterinary and Human Toxicology*, 27:181-184, 1985.

Dr. M.E. Tumbleson, professor, has accepted the position of associate dean of the University of Illinois College of Veterinary Medicine. He published "Effect of feeding cooked ground beef on serum lipid and lipoprotein bound cholesterol concentrations in male swine" with J.E. Williams, H.B. Hendrick, S.E. Grebing, S.J. Miller and M.A. Ellersieck in the *Nutrition Reports International*, 31:165-180, 1985. He published "Metabolism of lysophosphatidylcholines by swine platelets" with D.E. Chen, A.A. White and G.Y. Sun in *Lipids*, 20:133-140, 1985. Tumbleson also published "Serum lipid profiles and ethanol consumption in Sinclair (S-1) miniature swine" with G.Y. Sun in *Early Identification of Alcohol Abuse*, (N.C. Chang and H.M. Chao, editors), pp. 128-148, National Institute of Alcoholism and Alcohol Abuse Research Monograph No. 17, Rockville, Md., 1985.

Diagnostic Laboratory

Rosanne Batema, research specialist, published "Elimination of *anti-Mycoplasma arthritidis* antibody cross-reactivity in the *Mycoplasma pulmonis* ELISA using a serum absorption technique" with J.E. Wagner and C.E. Kendall in *Laboratory Animal Science*, 35:518, 1985.

Dr. Cynthia Besch-Williford, as-

sistant professor, published "The action of dietary fiber (residue) on mitotic activity and neutrophil infiltration in the rat intestine" with D.T. Gordon in an abstract of the Federated Societies Meeting, April 22-26, 1985, in San Diego, Calif. She published "Organophosphate toxicity in rats associated with contaminated bedding" with S.P. Gibson, K.L. Owen, M.F. Raisbeck, R. McLaughlin and J.E. Wagner in an abstract from the 36th annual session of the American Association of Laboratory Animal Science, Nov. 3-8, 1985, in Baltimore, Ma. She also published "Vitamin D toxicosis in commercially-reared rabbits" with C.M. Matherne and J.E. Wagner in an abstract from the 36th annual session of the AALAS, Nov. 3-8, 1985, in Baltimore.

Dr. William H. Fales, associate professor, published "A review of the pathogenic anaerobic bacteria" in the American Journal of Veterinary Research, 46:756, 1985. He published "A review of the seventh edition of Topley and Wilson's Principles of Bacteriology, Virology and Immunity" with R.F. Solorzano and G.M. Buening in the American Journal of Veterinary Research, 46:2214, 1985. Fales published "Femoral osteomyelitis and osteosarcoma in a dog" with R.T. Franklin, E. Aronson, R. Fallon, S.L. Stockham and L.P. Thornburg in the Journal of Veterinary Radiology, 26:211-213, 1985. He published "Mastitis and practical culture techniques" in Bovine Clinics, Vol. 5:6-8, 1985. He also published "Development of a Johne's culture service in a veterinary medical diagnostic laboratory" with L.G. Morehouse, S.L. Nelson and L.D. Kinter in the Proceedings of the 28th annual meeting of the American Association of Veterinary Laboratory Diagnosticians, 267-277, 1985.

Dr. A.B. Kier, associate professor, received a three-year grant for "Hageman trait studies" from the Heart, Lung and Blood section of the National Institutes of Health. The award totals \$177,254. She published

"Florescence measurement of receptor and nonreceptor mediated phagocytosis" with P.E. Sweet and M.A. Drake in Federal Proceedings, 44:1457, 1985. She published "*In vitro* measurement of neutrophil chemotaxis in mice utilizing the under agarose method" with M.T. Parker in the proceedings of the 36th annual American Association of Laboratory Animal Science meeting, held Nov. 3 in Baltimore. Laboratory Animal Science, (5):552-553, 1985. She published "Accelerated autoimmune disease and lymphoreticular neoplasms in F1 hybrid PN/NZB and NZB/PN mice" with S.E. Walker and J.S. Schultz in Clinical Immunology and Immunopathology, 1985.

Dr. L.G. Morehouse, professor, published "Mycotoxins of veterinary importance in the United States" in Trichothecenes and Other Mycotoxins, edited by John Lacey, John Wiley and Sons, Chichester, England, Brisbane, Toronto and Singapore, 383-410, 1985. He published "Rabies in swine" in Diseases of Swine, edited by A.D. Lehman, R.D. Glock, W.L. Mengeling, R.H.C. Penney, E. Scholl and R. Straw, Iowa State University Press, Sixth Edition, 1985.

Dr. Merl F. Raisbeck, assistant professor, published "Effect of 2-Hexanon upon hepato- and nephro-toxicity of 1, 2-dibromo and 1, 2-dichloroethane" with E. Brown and W.R. Hewitt in Toxicologist, 5:220, 1985. Currently in press is "Etonic Potentiation of halolakone nephrotoxicity," which he co-wrote with E. Brown and W.R. Hewitt. It will be published in Toxic Interactions between chemicals: mechanism and effects, J.B. Hook and W.R. Hewitt, editors, Academic Press, N.Y., 1985.

Dr. George Rottinghaus, assistant professor, published "Maize yields and instances of aflatoxins" with J.R. Wallen and H. Minor in Phytopathology, 75:1282, 1985. He published "Yields and aflatoxins levels in pre-harvest maize in 1982-1984" with J.R. Wallen and H. Minor in the proceedings of the Missouri Academy

of Science, 1985. He published "Pre-harvest aflatoxin contamination of maize in Missouri in 1982, 1983 and 1984" with J.R. Wallen and H. Minor in the proceedings of the Missouri Academy of Science, 1985. Rottinghaus published "TLC and HPLC methods for analysis of aflatoxins in commodities" in Diagnosis of Mycotoxicoses, editors J.L. Richard and J.R. Thurston, Martinus Nijhoff Publishers, Dordrecht, Netherlands, 1986. Rottinghaus published with L.P. Thornburg "What is the significance of Hepatic copper values in dogs with cirrhosis?" in Veterinary Medicine, Vol. 80, 50-54, 1985. With D.G. Corley and M.S. Tempesta, Rottinghaus published "Novel trichothecenes from *Fusarium sporotrichioides* in Tetrahedron Letters, Vol. 27, 427-430, 1986.

Dr. Earl K. Steffen, research assistant professor, presented "Epidemiologic typing and plasmid analysis of staphylococcal isolates from nude mice" at the annual National Cancer Institute Contractors meeting Feb. 1.

Pat Sweet, research specialist, published "Fluorescence measurement of receptor and nonreceptor mediated macrophage phagocytosis" with M.S. Drake and A.B. Kier in Federal Proceedings, 44:1457, 1985.

Dr. James Turk, associate professor, presented a swine disease seminar Feb. 25 at the University of Missouri-Rolla. He published "The canine urethra: a comparison of first and second intention healing" with D.R. Waldron, C.S. Headlin, C.H. Tanger, J. Watter and H.U. Cox in the Journal of Veterinary Surgery, 4:213-217, 1985. He published "Carcinoma of type II pneumocytes in a striped skunk" with R.I. Miller, S.K. Wells and A.E. Gutter in Veterinary Pathology, 22:644-645, 1985. He published "The morphologic evolution of experimental acute porcine pleuropneumoniae" with D.D. Mann and J. Hodges in proceedings of the Veterinary Research Symposium, 4:22, 1985. He published "Progression of disease in swine isolation and iden-

tification of hemphilus (actinobacillus) pleuropneumoniae" with J.W. Hargis and D.D. Mann in the abstract of the annual meeting of the Association of Veterinary Microbiologists, 1985.

Turk published "Synergism of bovine virus diarrhea and *pasteurella hemolytica* serotype I in bovine respiratory disease complex. I. Leukocyte alterations and pulmonary lesion volumes" with R.E. Corstvet, J.R. McClure, K.A. Gossett, F.M. Enwright and L.W. Pace in the proceedings of the annual meeting of the American Association of Veterinary Laboratory Diagnosticians, 28:67-81, 1985. He published "The effect of bovine viral diarrheal virus on *pasteurella hemolytica* serotype I infection in the bovine lung" with R.E. Corstvet, M.M. Downing and F.M. Enwright in the abstract from the annual meeting of the Conference of Research Workers in Animal Disease, 66, 1985. He published "Induction of pneumonic pasteurellosis in mice by intrabronchial inoculation of *pasteurella hemolytica* serotype I" with L.W. Pace, R.E. Corstvet and R.M. Enwright in the abstract (poster) of the annual meeting of American College Veterinary Pathologists, 36:70, 1985. He published "Effects of inhibitors of neutrophil chemotaxis and degranulation on pneumonic pasteurellosis in mice" with L.W. Pace and R.E. Corstvet in the abstract (poster) of the annual meeting of American College Veterinary Pathologists.

Dr. Margaret Turk, associate professor, published "Progressive ossifying myositis in a cat" with D. Waldron, V. Pettigrew, J. Turk and R. Gibson in the Journal of the American Veterinary Medical Association, 187:64-65, 1985. She published "Disseminated cutaneous squamous cell carcinoma in a ferret" with G.H. Olson and C.A. Foil in JAVMA, 186:702-703, 1985. Turk published "Follicular cysts in sheep" with H.H. Oz, C.S. Foil, M.A. Nemon, F.K. Al Bagdadi and D. Sims in the Journal of the American Veterinary Medical Association, 187:502-503, 1985. Turk published "Follicular cysts in sheep" with H.H. Oz, C.S. Foil, M.A. Nemon, F.K. Al Bagdadi and D. Sims in the Journal of the American Veterinary Medical Association, 187: 502-503, 1985.

She published "Pathologic and immunologic responses of ponies to repeated infections of *strongylus vulgaris* followed by sequential ivermectin treatments" with T.R. Klei, R.A. Hombs, J.R. McClure, V. Dennis and M.R. Chapman in the proceedings of the Second Colic Research Symposium, Athens, Ga., 1985. She published "Natural and acquired resistance to *strongylus vulgaris*. Its associated lesions and colic" with T.R. Klei, J.R. McClure, F.M. Enwright and M.R. Chapman in the proceedings of the Second Colic Research Symposium, Athens, Ga., 1985. She published "Pathologic changes in the brains of ponies with experimental *strongylus vulgaris* infection" with T.R. Klei and D.Y. Choo in the proceedings of the 28th annual meeting of the American Association of Veterinary Laboratory Animal Diagnosticians, 89-97, 1985.

Catherine M. Vogelweid, senior research lab technician, published "Scanning electron microscopy of bovine cornea irradiated with sun lamps and challenge exposed with moraxella bovis" with R.B. Miller, J.N. Berg and D.A. Kinden in the American Journal of Veterinary Research, 47:378-384, No. 2, 1986.

Medicine and Surgery

Dr. C. J. Bierschwal, professor emeritus, presented "Calving problems" Feb. 27 in Greenville, Mo. He published "Rapid progesterone assay: A promising diagnostic aid for the veterinarian" with R.S. Youngquist in Bovine Clinics, Vol. 5, No. 3, 1985.

Dr. M. Joseph Bojrab, professor, presented "Soft tissue surgery" at the New Jersey Academy of Veterinary Medicine March 12 in Jersey City. He presented the same paper, as well as several others, to the British Small Animal Veterinary Association April 4-14 in London and to the Voorjaarsdagen April 11-13. He presented "Surgery of mouth, surgery of the esophagus, surgery of small intestine, as well as wound management and physical exam for technicians" at the American Animal Hospital Association annual meeting March 23-28 in New Orleans.

Dr. William Braun, associate pro-

fessor, presented "Dairy goat artificial insemination," "Caprine arthritis encephalitis" and "Raising dairy goat kids" to the Western Veterinary Conference Feb. 17-20 in Las Vegas, Nev.

Dr. Claud B. Chastain, associate professor, published "Congenital hypotrichosis in a litter of basset hounds" with D.E. Swayne in the Journal of the American Veterinary Medical Association, 187:845-846, 1985. He published "Effects of chronic illnesses on plasma cortisol levels, the ACTH stimulation test, and low-dose intravenous dexamethasone response test in dogs" with R.T. Franklin, V.K. Ganjam and R.W. Madsen in the proceedings of the American College Veterinary Internal Medicine, 129, 1985. He published "Pseudopregnancy (clinical forum)" in Canine Practice, 12:29-30, 1985. Chastain published "Seizures (clinical forum)" in Feline Practice, 15:7-8, 1985. He also published "Blood/mucus diarrhea (clinical forum)" in Canine Practice, 12:8-11, 1985.

Dr. E. Allen Corley, professor, published "Trends in hip dysplasia control: analysis of radiographs submitted to the Orthopedic Foundation for Animals, 1974 to 1984" with P.M. Hogan in the Journal of the American Veterinary Medical Association, 187:805-809, 1985. He published "Control of canine hip dysplasia: current status" with G.N. Wease in the Kal Kan Forum, 4:80-88, 1985.

Dr. Harold E. Garner, professor, will publish "Plasma endotoxin levels in horses subjected to carbohydrate induced laminitis" with R.F. Sprouse and H.E. Garner in the Equine Veterinary Journal. He published "Carbohydrate induced endotoxemia in the horse" with R.F. Sprouse and E.M. Green in the proceedings of the Equine Colic Research Symposium, 1985. He published "Active and passive immunization for blockade of endotoxemia" with R.F. Sprouse and E.M. Green in the proceedings of the American Association of Equine Practitioners, 1985.

Dr. Eleanor M. Green, assistant professor, published "Hypophyseal neoplasia in a pony" with E.L. Hunt in Compendium on Continuing Education, 7:S249-S257, 1985. She published "Continuous caudal epidural

anesthesia in the horse: an update" with R.C. Cooper in the proceedings of the AAEP, 1985. She published "Current concepts on equine laminitis" with V.K. Ganjam and H.E. Garner in *Equine Sports Medicine*, March, 1986.

Mark Hitt, resident, presented "Chronic sinusitis in the cat" at the American Animal Hospital Association annual meeting March 26-28 in New Orleans, and served as chairman and speaker for Feline Medicine and Surgery Update II March 13 for University of Missouri Continuing Education in Columbia. He published "Ediopathic hematuria of unilateral renal origin in a dog" with R.L. Straw, J.C. Lattimer, D.P. Shaw, K.D. Weide and C. Smith in the *Journal of the American Veterinary Medical Association*, 187: 1371-1373, 1985. He published "Renal hematuria" in the *Compendium Continuing Education for Practicing Veterinarians*, 8:14-22, 1986. He published "Effects of storage temperature and time on canine plasma ammonia concentrations" with B.D. Jones in the *American Journal of Veterinary Research*, 47:363-364, No. 2, 1986.

Dr. Tom Hurst, assistant professor, presented "Microwave thawing of fresh frozen plasma" at the Critical Care Society annual meeting March 25-27 in New Orleans.

Dr. Brent Jones, associate professor, presented "Endoscopes," "Endoscopy of the upper gastrointestinal tract," "Pathophysiology and treatment of acute diarrhea" and "Malassimilation syndromes" Feb. 17-20 at the Western Veterinary Conference in Las Vegas, Nev. He presented "Liver function tests: a clinician's perspective," "Liver biopsy techniques" and "The pathophysiology diagnosis and treatment of hepatic disorders" to the Washington, D.C., Academy of Veterinary Medicine April 3.

Jones gave the following presentations at the American Animal Hospital Association annual meeting March 22-31 in New Orleans: "The use of liver function tests: a clinician's perspective," "The pathophysiology, diagnosis and treatment of hepatic encephalopathy," "The use of laproscopy in veterinary medicine," "The use of rhinoscopy in veterinary medicine"

and "The use of bronchoscopy in veterinary medicine." He also presented "Symptomatic treatment for vomiting," "Colonoscopy with sigmoidoscope—easy, affordable, rewarding," "The medical diseases of the esophagus," "The medical problem of vomiting," "The pathophysiology and treatment of acute diarrhea," "The malassimilation syndromes," "Diagnostic and therapeutic techniques: a potpourri" and "A review of GI and liver function tests." He was a course coordinator and moderator for the Comparative Gastroenterology Course on Endoscopy, and course coordinator for the Gastroenterology Core Course for the American Animal Hospital Association.

Jones published "The pathophysiology and treatment of acute diarrhea" in the AAHA annual proceedings, 242-250, 1985. He published "The medical problems of vomiting" in the AAHA annual proceedings, 270-281, 1985. He published "Hepatic biopsy techniques" with M. Hitt and T.S. Hurst in *Veterinary Clinics of North America, Small Animal Practice*, David Twedt, editor, W.B. Saunders, Philadelphia, Vol. 15, No. 1, 1985. He published "Gastrointestinal disorders" in *Handbook of Small Animal Therapeutics*, Lloyd E. Davis, editor, Churchill Livingstone, New York, 1985. He produced "An introduction to veterinary endoscopy (audiovisual)" at the annual meeting of the American Veterinary Medical Association, Las Vegas, Nev., 1985.

Drs. R.B. Miller and W.H. Fales, associate professors, published a chapter in *Current Veterinary Therapy (2)* called "Infectious bovine ketoconjunctivitis."

Dr. Dennis P. O'Brien, assistant professor, published "Clinical features of spongy degeneration of the central nervous system in two labrador retriever littermates" with J.F. Zachary in the *Journal of the American Veterinary Medical Association*, 186: 1207-1210, 1985. He published "Spongy degeneration of the central nervous system in two canine littermates" with J.F. Zachary in *Veterinary Pathology*, 22:561-571, 1985. He also published "Multicentric nerve sheath fibrosarcomas of multiple cranial nerve rods in two dogs" with

J.F. Zachary, B.W. Ingles, et al in the *Journal of the American Veterinary Medical Association*, 188: 723-726, 1986.

Dr. Rodney Straw, resident, presented "A study of the use of a vascular skeletal muscle graft for canine esophageal reconstruction" to the American College of Veterinary Surgeons meeting in Orlando, Fla., Feb. 25-28.

Melissa Stuart, research associate, presented a poster, "Differential antibody response to *Giardia lamblia* antigens between a symptomatic and an asymptomatic patient," at the American Society for Microbiology annual meeting March 23-28 in Washington, D.C.

Dr. Paul Tamas, assistant professor, presented "Presentation of new inhalant agents for the small animal patient" and "Anesthetic waste gases and the veterinary profession" to the Central Indian Veterinary Medical Association meeting April 16-18 in Indianapolis.

Dr. A. David Weaver, professor, published "Equine Diseases: A Textbook for Practitioners and Students," a translated and revised English edition (1986) of *Krankheiten des Pferdes*, H.J. Wintzer, editor, Berlin, Paul Parey, 1982. He published "Canine intestinal intussusception" in *Animal Models for Intestinal Disease*, C.J. Pfeiffer, editor, CRC Press, Boca Raton, Fla., 205-214, 1985. He published "Rectal examination as an aid to diagnosis of gastrointestinal disorders in the horse" in the *Veterinary Annual*, 25:211-216, 1985. He published "The correction of urethral obstruction in the male dog" in the *Veterinary Annual*, 25:272-276, 1985. Weaver published "Lameness in cattle: investigation and diagnostic check lists" in the *British Veterinary Journal*, 141:27-33, 1985.

Dr. Cynthia Wheeler, assistant professor, resigned to accept a position at the Michigan State University College of Veterinary Medicine.

Dr. William A. Wolff, clinical associate professor, co-wrote "Hormonal and nutritional aspects of bovine paralytic rabies infection" in the proceedings of the tenth Panamerican Congress of Veterinary Medicine and Zootechnics, Buenos Aires, Argentina, No. 182, Sept. 23, 1985. He co-wrote

New faculty

Dr. Laurie Mills has joined the faculty as an assistant professor of veterinary medicine and surgery. Her specialty is large-animal medicine.



Mills

Mills spent last year as a resident at the Western College of Veterinary Medicine in Saskatoon, Canada, and previously was an intern in food animal medicine and surgery at the University of Illinois. She received a bachelor's degree in 1980 and a DVM in 1982 from Kansas State University. She earned a master's degree of veterinary science in 1985 from the University of Saskatchewan, Canada.

"Immuno-pathobiology of the 'wasting syndrome' associated to rabies. I. Bovine paralytic rabies (BPR), infection and isolates" in Rabies Information Exchange CDC Bulletin, No. 12, June 1985.

Dr. Robert S. Youngquist, associate professor, published "Body composition of beef heifers at puberty" with A.L. Brooks and R.E. Morrow in *Theriogenology*, 24:235-250, 1985. He published "Clinical management of reproductive problems in dairy cows" with C.J. Bierschwal in the *Journal of Dairy Science*, 68:2816-2817, 1985. He published "Reproductive problems in dairy cows" in *Bovine Clinics*, Vol. 5, No. 3, 1985. He published "Analyzing the effects of diazepam used in combination with ketamine" with R.G. Elmore, D.K. Hardin, J.M.E. Balke and D.W. Erickson in *Veterinary Medicine*, 80:55-57, 1985.

Youngquist published "Ovarian measurements of prepubertal heifers treated with follicle stimulating hormone or follicle stimulating hormone/bovine follicular fluid" with M.T. Moser, H.A. Garverick and M.F. Smith in the abstract from the 80th meeting of the American Dairy Science Association, June 9-12, 1985, Urbana, Ill. He published "Effect of the uterus on subnormal luteal function in anestrous beef cows" with J.P. Copelin, M.F. Smith and H.A. Garverick in the abstract from the annual meeting of the American Society of Animal Science, Aug. 13-16, 1985, in

Athens, Ga. He published "Clinical applications of enzymeimmunoassay for progesterone" with C.J. Bierschwal and B.L. Clark in the proceedings of the annual conference of the Society for Theriogenology, Sept. 11-13, 1985, Sacramento, Calif. He was editor of *Bovine Clinics*, Veterinary Learning Systems, Vol. 5, No. 3, September 1985.

Microbiology

Dr. Hans K. Adldinger, professor, published "A putative transforming gene of Jijoye virus differs from that of Epstein-Barr virus prototypes" with H. Delius, U.K. Freese, J. Clarke and G.W. Bornkamm, in *Virology*, 141:221-234, 1985.

Dr. John N. Berg, professor, published "Identification of common antigens in ribosome-rich extracts from *Fusobacterium necrophorum*" with J.W. Evans in the *American Journal of Veterinary Research*, 46:127-131, 1985. He published "Iodine concentrations in milk from iodophor teat dips" with D. Padgett in the *Journal of Dairy Science*, 68:547-561, 1985. He published "Effect of intrauterine infusion of *Escherichia coli* endotoxin in postpartum pony mares" with T.L. Blanchard, R.G. Elmore, D.A. Kinden, T.A. Mollet and M.C. Garcia in the *American Journal of Veterinary Research*, 46:2157-2162, 1985. He published "Development of enzyme-linked immunosorbent assays for the detection of *Fusobacterium necrophorum* antibody in animal sera" with J.W. Evans in the *American Journal of Veterinary Research*, 46:132-135, 1985. He published "Aggregation of platelets by fusobacterium necrophorum" with L.J. Forrester, J.N. Berg and J.T. Barrett in the *Journal of Clinical Microbiology*, 245-249, 1985. He published "Effects of intrauterine infusion of *Escherichia coli* endotoxin in anestrous and steroid treated pony mares" with T.A. Mollett, R.G. Elmore and T.L. Blanchard in *Theriogenology*, 23:597-606, 1985.

Dr. Gerald M. Buening, professor, published "*In vitro* cultivation of *Babesia bigemina*" with C.A. Vega, T.J. Green and C.A. Carson in the *American Journal of Veterinary Research*, 46:416-420, 1985. He published "Cryopreservation of *Babesia*

bigemina for *in vitro* cultivation" with C.A. Vega, S.D. Rodriguez, C.A. Carson and K.K. McLaughlin in the *American Journal of Veterinary Research*, 46:421-423, 1985.

Dr. Robert Corwin, professor, presented "Diagnostic techniques in parasitology for animal health technicians" at the Western Veterinary Conference. He presented "Parasitisms of the dog and cat" and was chairman of the meeting of the American Association of Sheep and Goats Feb. 17. He published "Diagnosis and treatment of canine heartworm disease—an update" with S.E. Pratt and C.A. Wagner in *Modern Veterinary Practice*, 66(8):548-551, 1985.

Dr. Theodore J. Green, associate professor, published "Cloning and characterization of *Plasmodium falciparum* FCR-3/FMG strain" with G. Gadsden, T.M. Seed, R.L. Jacobs, M. Morhardt and R.G. Brackett in the *American Journal of Tropical Medical Hygiene*, 34(1):24-30, 1985. He published "Organization of *Plasmodium falciparum* I genome: 1. Evidence for a highly repeated DNA sequence" with R.V. Guntaka, S. Gowda and A.S. Rao in *Nucleic Acid Research*, 13(6):1965-1975, 1985.

Dr. Ron McLaughlin, associate professor, presented "The affect of AAALAC on biomedical research institutions" at the PHS workshop on the implementation of the PHS Policy on Animal Welfare March 11 in Little Rock, Ark.

Dr. David Thawley, associate professor, presented "Epidemiology of pseudorabies virus" and "Field exercise" at the U.S. Department of Agriculture Pseudorabies Workshop March 25-27 in Ames, Iowa. He published "A DNA hybridization procedure to detect pseudorabies virus DNA in swine tissues" with R.G. McFarlane in the *American Journal of Veterinary Research*, 46:1133-1136, 1985. He published "Evaluation of the radial immunodiffusion enzyme assay for the detection of antibodies to pseudorabies virus" with H.S. Joo, M.E. Johnson and R.F. Solorzano in the *Journal of the American Veterinary Medical Association*, 186(10):1080-1083, 1985.

Dr. Manuel J. Torres-Anjel, associate professor, was admitted to the

American College of Epidemiology. He presented "Bovine paralytic virus" Feb. 18-21 at the University of Maryland. He presented "Peculiar effect of rabies virus on growth-hormone-producing cells" at the 86th annual meeting of the American Society for Microbiology March 24 in Washington, D.C. He published "Differences in cell to cell spread of pathogenic and apathogenic rabies virus *in vivo* and *in vitro*" with B. Dietzschold, T.J. Wiktor, J.Q. Trojanowski, R.I. Macfarlan, W.H. Wunner and H. Koprowski in the Journal of Virology, 56(1):12-18, 1985.

Pathology

Dr. William J. Boever, adjunct assistant professor, published "Hepatic neoplasia in two polar bears" with E.A. Miller and L.P. Thornburg in the Journal of the American Veterinary Medicine Association, 187:1256-1258, 1985.

Dr. Linda L. Collier, assistant professor, published "Tapetal degeneration in cats with Chediak-Higashi syndrome" with E.J. King and D.J. Prieur in Current Eye Research, 4: 767-773, 1985. She published "Aberrant melanosome development in the retinal pigmented epithelium of cats with Chediak-Higashi syndrome" with E.J. King and D.J. Prieur in Experimental Eye Research, 41:305-311, 1985. She published "Update of feline Chediak-Higashi syndrome" with E.J. King, D.J. Prieur and C.P. Moore in the transactions of the 16th annual Scientific Programs of the College of Veterinary Ophthalmologists, 102-109, 1985.

Dr. Susan V. Gibson, research associate, published "Organophosphate toxicity in rats associated with contaminated bedding" with C. Besch-Williford, K.L. Owen, M. Raisbeck, R. McLaughlin and J.E. Wagner in Laboratory Animal Science, 35:527, 1985.

Dr. Ron Friedlander, research associate, presented "M9 vaccination program" March 14 in Rogers, Ark.

Dr. Darrell A. Kinden, associate professor, published "Effect of intrauterine infusion of *escherichia coli* endotoxin in postpartum pony mares" with R.G. Elmore, T.L. Blanchard,

J.N. Berg, T.A. Mollett and M.C. Garcia in the American Journal of Veterinary Research, 46(10):2157-2162, 1985.

Dr. Curt M. Matherne, research associate, published "Description of three immunologic techniques with potential for eliminating cross-reactivity between *Mycoplasma pulmonis* and *Mycoplasma arthritidis* ELISAs" with J.E. Wagner and C.E. Kendall in Laboratory Animal Science, 35:518, 1985.

Dr. Bonnard Moseley, associate professor, presented "Swine health" at the National Pork Producers Congress March 11-14 in St. Louis.

Dr. John E.K. Mrema, research assistant professor, presented "Hemograms of healthy colony-born owl monkeys (*Aotus lemurinus griseimembra*)" with M.B. Heidari, D.A. Schmidt, A.L. Huber, S.T. Kelly and T.J. Green to the American Association for Laboratory Animal Science, 36th annual session, Baltimore, 1985.

Dr. LeRoy Olson, professor, presented seminars on swine disease control and prevention to the Peruvian swine industry March 30 to April 6 in Lima, Peru.

Dr. Michael Parker, postdoctoral fellow, published an abstract, "*In vitro* measurement of neutrophil chemotaxis in mice utilizing the under agarose method" with A.B. Kier in Laboratory Animal Science, 35:552, 1985.

Dr. Harold F. Stills, assistant professor, published "Immunogenicity of a pernteral formalin-fixed *Yersinia enterocolitica* bacteria in orally challenged squirrel monkeys" with P.S. Skavlen, C.E. Kendall and R.R. Hook in Laboratory Animal Science, 35:536, 1985. He published "Naturally occurring *Yersinia enterocolitica* septiemia in Patas monkeys (*Erythrocebus patas*)" with P.A. Skavlen, E.K. Steffen and C.C. Middleton in Laboratory Animal Science, 35(5):448-490, 1985.

Dr. Steven L. Stockham, assistant professor, was elected secretary-treasurer of the American Society for Veterinary Clinical Pathology at the society's annual meeting in Denver. He presented a paper at the meeting, "Polyarthritis associating with canine granulocytic ehrlichiosis." He was re-elected as a faculty adviser for the

student chapter of the American Veterinary Medical Association. He published "Diagnostic methods" with A. Shores, K.G. Braund and S.T. Simpson in Textbook of Small Animal Surgery, D. Slatter, editor, chapter 91, W.B. Saunders Co., 1285-1308. He published "Profound hyponatremia associated with glucocorticoid deficiency in a dog" with S.E. Crow in the Journal of the American Animal Hospital Association, 21:393-400, 1985. He published "Erythroid hypoplasia: recovery with immunosuppressive therapy" with E. Kaplan and N.J. Pisoni in Veterinary Medicine, 80:22-29, 1985. He published "Canine granulocytic ehrlichiosis in dogs from central Missouri: a possible cause of polyarthritis" with D.A. Schmidt and J.W. Tyler in the Veterinary Medical Review, 6:3-5, 1985.

Dr. Larry P. Thornburg, associate professor, published "Liver disease in west highland white terriers" with S. Crawford in the Veterinary Record, 118:110, 1986. He published "Hereditary copper toxicosis in west highland white terriers" with S. Shaw, et al, in Veterinary Pathology, 23:148-154, 1986. He published "What is the significance of hepatic copper values in dogs with cirrhosis" with G. Rottinghaus in Veterinary Medicine, 80:50-54, 1985. He published "Histochemical demonstration of copper and copper-associated protein in the canine liver" with M. Beissenherz, et al, in Veterinary Pathology, 22:327-332, 1985. He published "Copper toxicosis in dogs part one: copper-associated liver disease in Bedlington terriers" and "Copper toxicosis in dogs part two: the pathogenesis of copper-associated liver disease in dogs" in Canine Practice, 12(4):41-45, 1985 and 12(5):33-38, 1985. He also published "Cycad intoxication in the dog: letter to the editor" in the Journal of the American Animal Hospital Association, 21(5):602-603, 1985.

Dr. Joseph E. Wagner, professor, published "Characterization of strain specific antisera for genetic monitoring of rat strains" with C. Kendall in Laboratory Animal Science, 35(4): 364-369, 1985. He published "Helminthiasis caused by *Aspicularis tetraoptera*" with P.A. Skavlen in Laboratory Animal, 14:17-18, 1985.

PEOPLE

'61

Walter Jones, BS Agr '59, DVM, a Florissant, Mo., veterinarian, was appointed to the Missouri Veterinary Medical board in November.

'64

Royal W. Ranney, BS Agr '50, MS

'60, DVM, a general practitioner in Rolla, is president-elect of the 850-member Missouri Veterinary Medical Association.

'67

Robert Kinkead, BS Agr '65, DVM, and **Sharon Yeagle**, DVM '85, run the Brush Creek Veterinary Practice in Columbia. They treat and provide holding pens for cattle.

'80

Caroline Dunlap, DVM, relocated her practice to a renovated gas station in Raytown, Mo.

Lloyd Kloppe, DVM, is a resident in theriogenology at Texas A&M University.

Jim Peddicord, DVM, bought a veterinary practice in Holden, Mo. He currently practices in Odessa, Mo.

'84

Lynn Allen, DVM, married Steve Hawley Sept. 7, 1985. They live on a farm in Kingsville, Mo. Allen is employed with the Animal Emergency Clinic in Kansas City and in a mixed-practice at the Warrensburg (Mo.) Animal Hospital.

Obituary

Edmund R. Price of Farmington, N.M., died Jan. 4 at age 78.

Price retired in 1975 after 17 years as director of the Missouri Bureau of Veterinary Public Health. He was a founding member of the American Board of Public Health and past secretary of the Missouri Veterinary Medical Board. As past president of the Missouri Public Health Association, Price received the association's W. Scott Johnson Award for outstanding service in public health.

His family has established a veterinary medicine graduate scholarship in his honor. Checks, payable to the University of Missouri-Columbia, may be sent to Associate Dean Ken Niemeyer, 203 Veterinary Medicine Building, Columbia, Mo. 65211.

Nominations sought for prestigious award

The most prestigious award granted by the Veterinary Medicine Alumni Organization is the College of Veterinary Medicine Alumnus of the Year award. The program is now in its third year. To continue the high caliber of this award, we need your help.

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Dr. _____

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The recipient **MUST** be present at the Nov. 9-10 annual fall conference to receive the award. Mail nomination form to Dr. K.H. Niemeyer, 203 Veterinary Medicine Building, University of Missouri, Columbia, Mo. 65211.

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Be an active member of the Alumni Association of the University of Missouri-Columbia. Your \$20 annual dues make you a member of the College of Veterinary Medicine Alumni Association, plus you will receive a subscription to the colorful *Missouri Alumnus*; University Library privileges; first chance on exciting travel tours sponsored by the Alumni Association;

a locator service to find fellow alumni; association with a great group of former students; and on payment of an additional \$8, issues of *Tiger Sports* weekly during the football season and periodically from December to May.

Send your payment to Alumni Association, 132 Alumni Center, Columbia, Mo. 65201.

Dates

The Oct. 11 Alumni Day in Columbia will feature seminars, brunch and the Missouri-Colorado football game. The classes of 1956 and 1976 will have reunions. Watch for mailings.

The Nov. 9-10 annual conference will be held in Columbia. The classes of 1951, 1961, 1971 and 1981 will have reunions Nov. 8 at the Hilton Hotel.

Company provides insurance coverage for pets

It's an insurance company like most others, offering major-medical and accident policies. But only four-footed creatures qualify for coverage.



Stephens

The Veterinary Pet Insurance Co. is the first and only company in the country that provides insurance exclusively for dogs and cats. Founder, president and chief executive officer is **Jack L. Stephens, DVM '72**, of Anaheim, Calif.

Selling pet insurance is feasible because people are spending more money on their pets, says Stephens, a new member of the Jefferson Club, the University's premier development group.

"Veterinary medicine has gotten a

lot more sophisticated," Stephens says. "They now put pacemakers in animals and they have chemotherapy treatment for pets. All that costs money.

"I think pets mean more in our more urban society," he says. "People are willing to spend more money on their pets. They are no longer expendable items, as they were on the farm."

Apparently pet owners agree. Since the Los Angeles mayor bought the first policy for movie star Lassie in 1982, more than 60,000 policies have been sold in 24 states, including Missouri. By the end of the year, Stephens plans to expand his service to 30 states.

"We are going to target the states with large urban areas first," Stephens says. "Right now most of our clients are still in California, and

research has shown that people in California, New York, Florida and Texas spend the most money on their pets, so those will be our biggest markets."

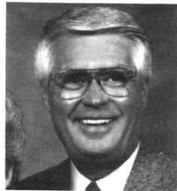
Veterinary Pet Insurance's accident policy costs \$24 a year, while a major-medical policy runs between \$44 and \$120 a year, depending on the age of the pet. The company also offers comprehensive pregnancy coverage. Such insurance currently is available only for dogs and cats, but Stephens plans to include birds and horses in the future.

Stephens says that although 1985 was the first year the company turned a profit, the future looks bright.

"The pet owners requested this service," he says. "Our response has been gratifying, especially from renewals. They really wanted something like this."

Industry provides possibilities for employment

Industrial veterinary medicine may be the solution to the profession's overcrowding, says **Gerald L. Johnson, BS Agr '52, DVM '56**, director of professional services at Bayvet in Kansas City.



Johnson

Johnson was chosen Veterinarian of the Year in 1985 by the American Association of Industrial Veterinarians.

"You would be absolutely astounded at the number of companies that employ vets, like Coca-Cola and Frito Lay," he says. "They need someone to look after all the lab animals. There may be too many veterinarians, but there is not too much veterinary service."

In order to stay competitive, veterinarians will have to reclaim areas that have been taken over by other professions, Johnson says.

"We, as veterinarians, should be consultants in these [poultry and swine] industries. We need to get veterinarians back into all these facets of veterinary health, where they should be."

At Bayvet, a division of Miles Laboratories Inc., Johnson is responsible for handling questions about the company's veterinary pharmaceuticals and instruments.

"Probably what I like most about my job is getting to meet veterinarians all around the country," he says. "I am on the phone with veterinarians every day who have problems or want to know how to use one of our products."

Johnson also stays in contact with other veterinarians through his many veterinary medicine affiliations. He is past president of the American Association for Industrial Veterinarians, the Missouri Veterinary Medical Association and the Kansas City Veterinary Medical Association.

A charter member of the Friends of Veterinary Medicine and a member

of the Development Fund's Columns Club, Johnson was instrumental in his company's \$1,200 donation for an alumni reception at the annual American Veterinary Medical Association convention in July in Atlanta.

Currently he serves as the District Seven representative to the AVMA executive board.

"I'm a veterinarian first, and I am concerned about what direction veterinary medicine is going in," he says. "I like to help formulate policy and help carry out policy. I am interested in what is best for the profession nationally, not just what's best for me."



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Checks should be made payable to Missouri Mule Fund.



Stuart T. Wagner photo

Professor wins with mother's casserole recipe

Six years of cooking for his family in Hungary left Dr. Paul Tamas, assistant professor of veterinary medicine and surgery, a wizard in the kitchen. His culinary prowess—and his mother's Hungarian Rakott Krumppli recipe—won second

place in the casserole division of the Columbia Daily Tribune's 1986 recipe contest. He won a \$20 gift certificate. Tamas says preparing the potato and sausage casserole is a snap. "I made it exactly as my mother did it," he says.

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