

# Veterinary

FALL  
1992

m e d i c a l   r e v i e w

CVM Looks to  
a New Era

PLUS

Changing of the Guard  
College Helps Pay its Way  
Hip Replacement on  
Cutting Edge

COLLEGE OF VETERINARY MEDICINE AND COOPERATIVE EXTENSION SERVICE  
UNIVERSITY OF MISSOURI-COLUMBIA

# Veterinary

medical review

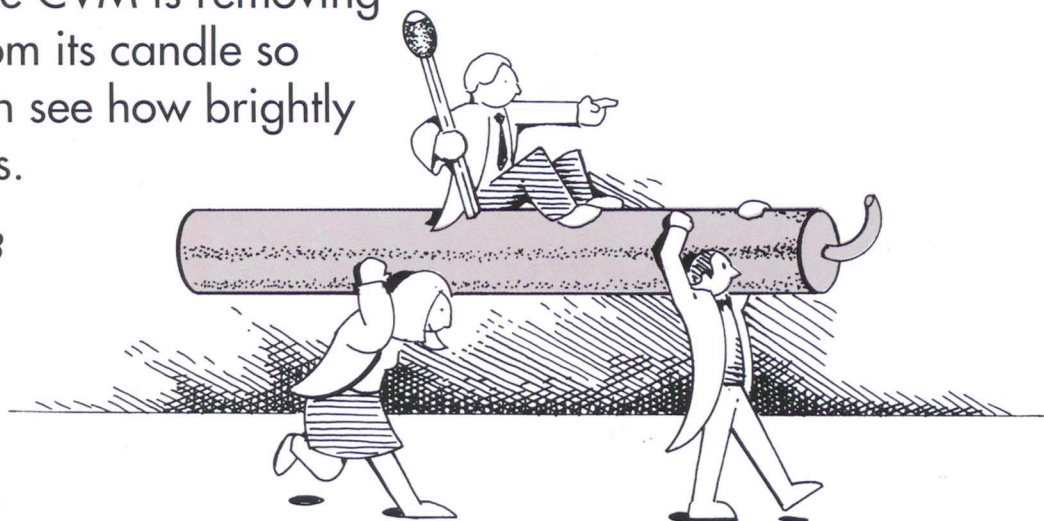
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Extramural activities of the College bring millions of dollars back to the University. The CVM is removing the basket from its candle so the public can see how brightly its light shines.

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ON THE COVER: Clydesdale Hall is receiving the finishing touches on its exterior from George Barnes, a brick foreman for Dean Hathman Masonry Co. who is sanding the stray mortar off the stone work. (photo by Jim Curley)



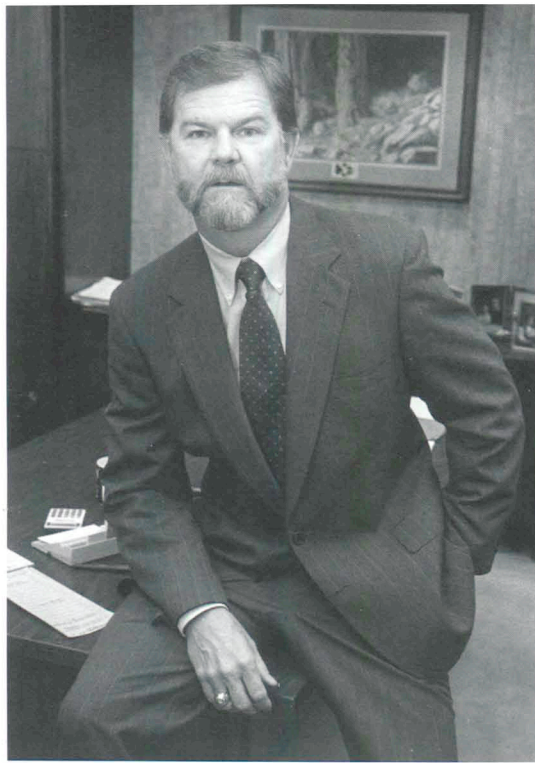
**Y**our college of veterinary medicine—Missouri's only college of veterinary medicine—is undergoing positive transition and exciting changes! We are becoming more efficient, more finely tuned, higher quality and much better equipped to serve the citizens of this state. As interim dean, I have the challenging opportunity to help lead the college as we enter this **New Era** in veterinary medical education and service in the great state of Missouri.

### New Teaching Hospital

After years of thoughtful planning and statewide support from many people—including public and university officials, students and parents, faculty and staff, animal owners, alumni, organizations, and livestock and poultry producers—the new veterinary teaching hospital is now a reality! This hospital, named Clydesdale Hall, will be occupied by the time you read this article. This is an exceptional and efficiency-based hospital that will generate pride in all of us as it ushers in this **New Era** in clinical veterinary training and service. The college will now have significantly enhanced capabilities to provide even better medical care, health management, referral programs, and diagnostic tests for all animal species essential to the economy and well being of this state.

The Equine Center will move into the campus as an integral part of the new teaching hospital, vacating its separate location at the Middlebush Farm after 20 years. The Middlebush facility will be transformed into a premier large animal and poultry disease research facility, thanks in no small part to joint investment by the College of Agriculture, Food and Natural Resources through MU's Food For The 21st Century Program.

The college wishes to extend sincere appreciation to all who helped the dream of a contemporary teaching hospital become a reality. Formal dedication of Clydesdale Hall is scheduled for April 3, 1993, during our "dedication weekend," and we hope each of you will mark your calendar to attend this historic event and accompanying festivities. The



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## EXCITING CHANGES, A NEW ERA!

next edition of *Veterinary Medical Review* will highlight the new Veterinary Teaching Hospital.

### Administrative Renewal

In addition to a new teaching hospital, your college also has opportunity to seek new administrative leadership in the dean's office and in the Department of Veterinary Medicine and Surgery. It should not be surprising nor disheartening when tried, true and outstanding administrators are recruited away by unique offers of career development. Dean Emeritus Robert F. Kahrs is now director of the Hyattsville, Md. National Center for Imports and Exports for the U.S. Department of Agriculture. James Creed, former head of medicine and surgery, is now associate dean and director of the veterinary teaching hospital at Oklahoma State University in Stillwater. Although we regret the loss of individuals who have contributed so much to the college, in

return we receive exciting opportunities for new visions in leadership and renewed dedication toward national prominence and excellence of all college programs including professional education, research, patient care, diagnostics, extension and continuing education.

Nationwide searches are now in progress for a new college dean and new head of veterinary medicine and surgery. Your suggestions and ideas for filling these critical and multifaceted positions will be most welcome.

Associate Dean Ken Niemeyer is retiring, but is continuing for another year to provide us with the benefits accrued to his 37 years of experience helping navigate this college. Dr. Robert Youngquist, associated with this college for more than 20 years, is interim chairman of veterinary medicine and surgery. Youngquist appointed Dr. Cecil Moore as interim associate chairman, providing more than eight more years of experience at Mizzou. With this type of leadership stability—coupled with input from other departmental chairmen, faculty, students and staff, not to mention MU administrators—your interim dean is assured of appropriate and

stringent counsel as the college advances into new developments and we strive to accelerate the momentum of excellence already in motion at this institution.

MU has a new chancellor in place, Dr. Charles Keisler, former provost of Vanderbilt University. Chancellor Keisler and Provost Gerald Brouder have expressed dedication to carefully planned developments and changes in the varied missions of this institution.

### Changes, Which Direction?

During the past few years, many changes already have been quietly transpiring in the college. It was emphasized to me recently that the veterinary college needed to "remove the basket covering our candle", and share with others the full light of our programs. Indeed, because of a nationwide decrease in public funds for higher education, educational institutions are justifiably being asked with increasing fervor, "what else do you do besides (in our case) train students to become outstanding veterinarians?" Well, we do a lot in the Show-Me State.

For example, did you know that the Veterinary Teaching Hospital, the Veterinary Medical Diagnostic Laboratory, and our basic science research projects bring in almost **\$4 million** a year to MU; all reinvested into college programs? When these facts are blended into the formula for estimating costs for training veterinary students, admittedly not an inexpensive responsibility, it is apparent that the college is self-helping taxpayers in the education of their children. An accompanying article will highlight some of the extramural support your college brings into university coffers.

Although excellence in teaching and training veterinarians remains the core of our educational mission, increasing emphasis will be placed on garnering more extramural funds to assist the college and hopefully decelerate student tuition costs. In today's climate of shrinking state support, this college cannot be all things to all people. Instead, key areas will be selected for nurtured investment—areas deemed important to veterinary medical needs in the state and country and, necessarily, areas that are most likely to yield the biggest return on investments. This focused approach

**Although excellence in teaching and training veterinarians remains the core of our educational mission, increasing emphasis will be placed on garnering more extramural funds to assist the college and hopefully decelerate student tuition costs.**

will be utilized to help build national eminence in selected areas critical to veterinary medicine and affiliated aspects of diagnostic services and biomedical research. These programs will be highlighted in future editions of the Veterinary Medical Review.

### A Fond Visit

Before turning the page and looking ahead, I would be remiss in not acknowledging Bob and Evelyn Kahrs for their exceptional and unique contributions to veterinary medicine in Missouri. The college is now fully accredited; the budget has been increased measurably; and the new teaching hospital is in place. Dr. Kahrs helped position this college, perhaps as never before in its history, for this **New Era**

in our continuing race for academic excellence. It is now up to us to provide diligent stewardship over this current position of strength; and to further improve quality and cost-effectiveness as new challenges appear on the horizon.

### Looking Ahead

I hope to have conveyed to you the feelings of excitement and enthusiasm now in progress during this time of transition and change at the college. This truly is your college and we want to encourage you to drop by, phone, or write. I wish to personally invite you to contact me about items you may wish to discuss or to see addressed in future issues of this journal. In the interim, the door is always open. We look forward to suggestions and ideas as the college strategically plans for the quality of veterinary education and service deserved by Missourians now and into the 21st century.

Best personal regards,



H. Richard Adams  
Interim Dean

# CHANGING OF THE GUARD

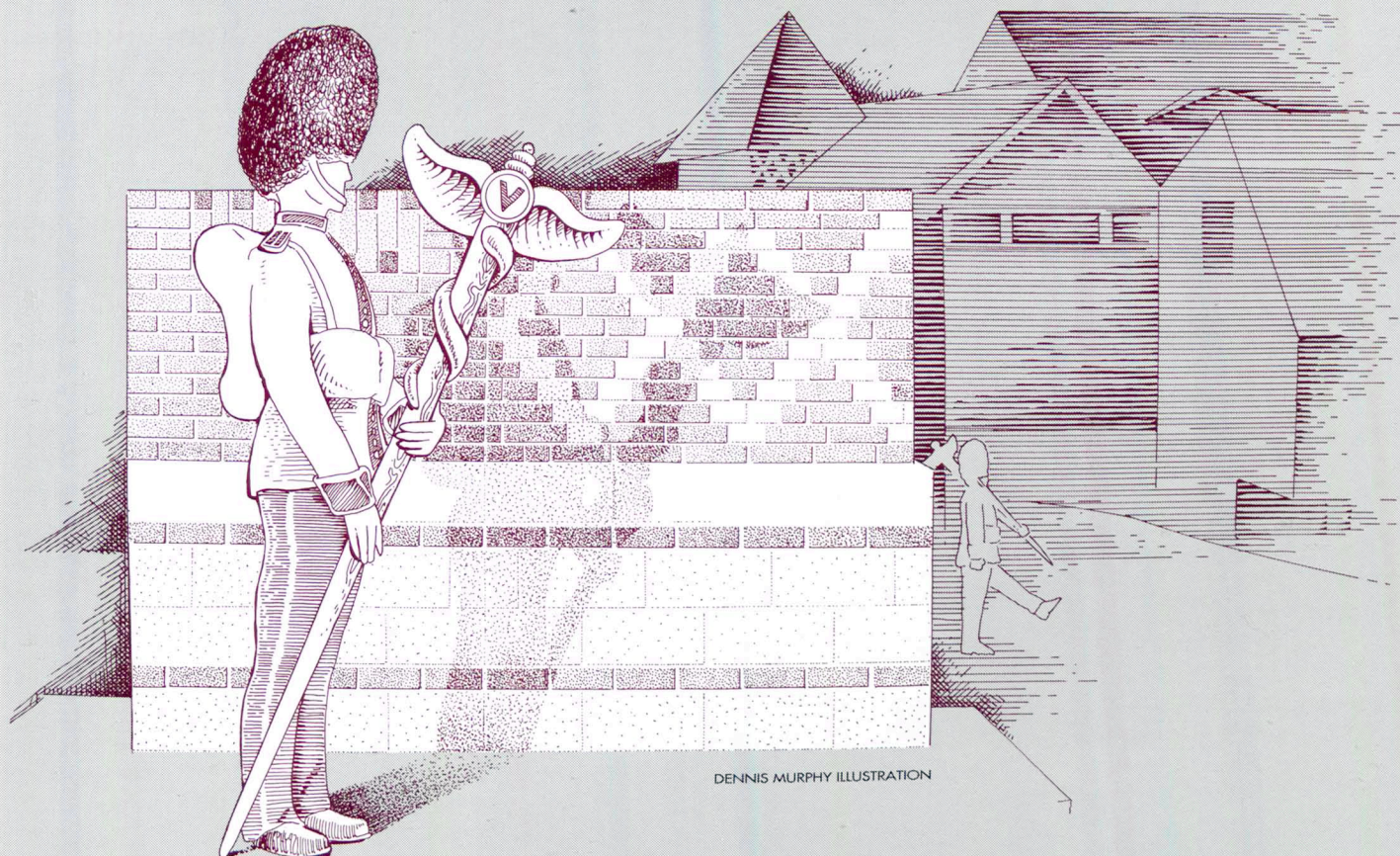
## College of Veterinary Medicine sees changes in administration

by Gwen Ratemann

**A**s the consuming challenge of building a new teaching hospital becomes a vivid memory, new opportunities for growth and challenge await the College of Veterinary Medicine. Personnel changes in several key administrative positions set the stage for exciting growth that can occur with new administrators.

Over the summer **Dr. Robert Kahrs**, dean of the college and **Dr. Kenneth Niemeyer**, associate dean for students and alumni affairs, retired. In addition **Dr. James Creed**, chairman of veterinary medicine and surgery, has taken a position with Oklahoma State.

**Dr. H. Richard Adams**, former chairman of biomedical sciences has been appointed as interim dean of the college by Dr. Gerald Brouder, provost and interim chancellor. The dean search committee led by **Dr. Harvey Gosser** is reviewing applications.



DENNIS MURPHY ILLUSTRATION

# CHANGING OF THE GUARD

"We hope to interview the selected candidates in early 1993," Gosser says.

Adams emphasizes that the college "is not going to tread water during the search for a permanent dean. We are going to move rapidly forward in occupying the new teaching hospital, in placing new leadership in veterinary medicine and surgery, and in accelerating the momentum of academic excellence already in progress."

Dr. Kahrs is now directing the newly formed Veterinary Services National Center for Import and Export in Hyattsville, Md. The center is responsible for conducting national and international policies relating to the import and export of live animals, germ plasm, animal products, and biological ma-

terials.

When Kahrs accepted the position as dean of the college 10 years ago, challenges awaited him. "When I arrived, the college was at a crossroads. Either it had to grow, flourish and prosper or wither on the vine," Kahrs says.

Under his leadership the college gained a vote of confidence from Missouri legislature and MU administration, through a significant increase in budget allocations. Upgrading the teaching facilities became a priority and the necessary steps were taken to procure the finances to build the new teaching hospital.

Dr. Niemeyer was also a key player in this decade of growth and change. Niemeyer re-

Dr. Kenneth Niemeyer is staying on with the College until May 1993 in order to see the veterinary teaching hospital, Clydesdale Hall, to its completion.



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tired from his position in August, but continues as associate dean of students until May 1993.

"I feel responsible to follow the building of the new teaching hospital to its completion," Niemeyer says. "I also wanted to follow through with one more phase of the admissions and graduation so the faculty member appointed as interim associate dean would not be responsible for all of it."

Niemeyer's decision to stay on until next spring will ease the transition for his interim successor. The search for an interim associate dean will begin this winter with plans to have the position filled by February 1993.

Dr. Creed has moved on to an administrative position at Oklahoma State in Stillwater. Creed is the assistant dean for service and the director of the veterinary teaching hospital, a career advancement for him. Creed had been with the college as chairman of veterinary medicine and surgery since 1984. Creed sees changes in administration as important for the growth of an institution.

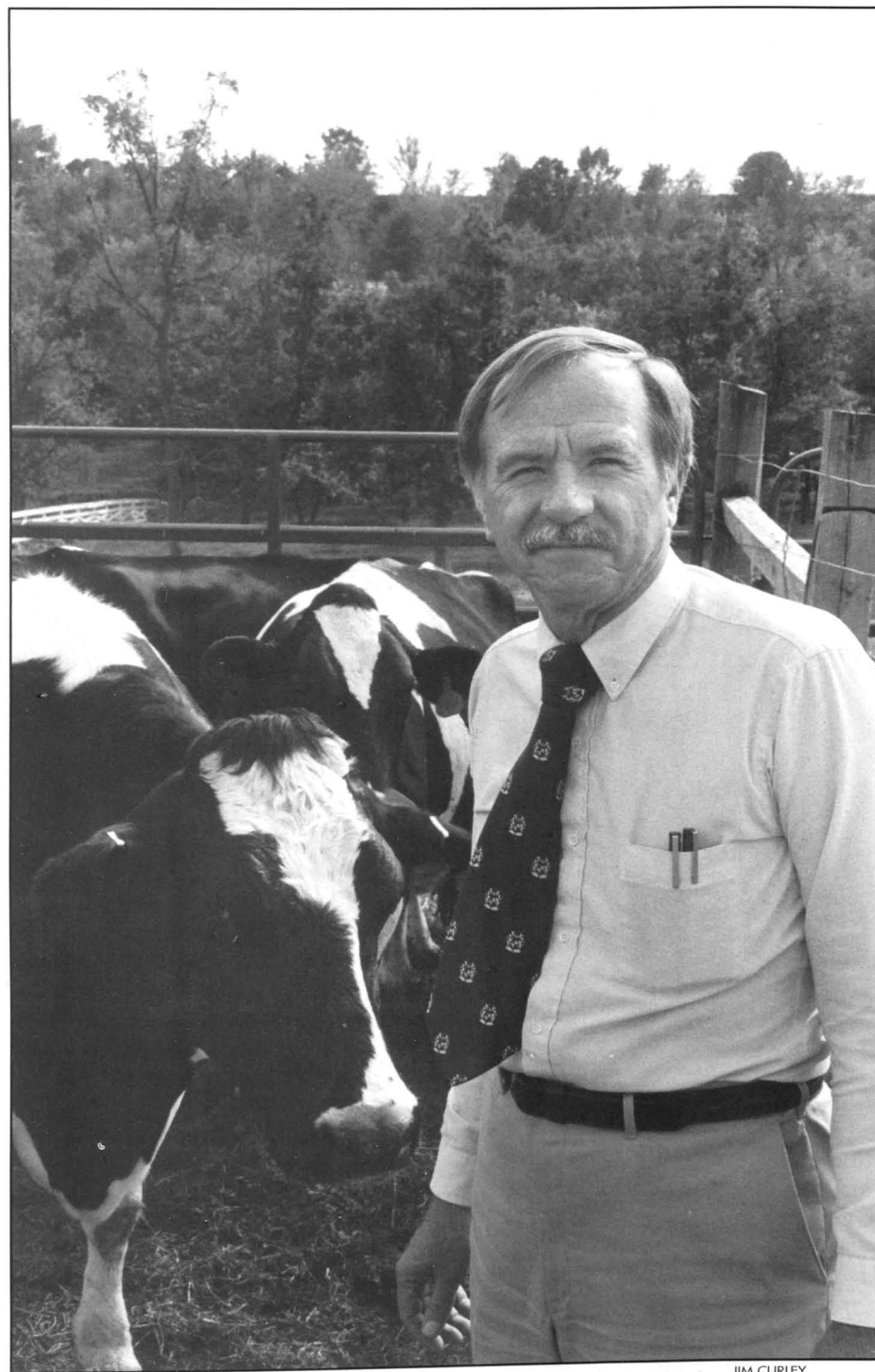
"Philosophically I believe it is a good idea to change leadership once in awhile. Leaders can become ineffective if in their positions for too long," Creed says.

**Dr. Robert Youngquist**, professor specializing in theriogenology, has been appointed as interim chairman of veterinary medicine and surgery with **Dr. Cecil Moore** as associate chairman. Moore leads the search committee for the chairman of veterinary medicine and surgery.

Although there will be no enormous changes while he serves as department chairman, Youngquist is well aware of the psychological stress moving often provokes. "The only one who likes change is a wet baby," Youngquist playfully remarks. His overriding concern for the department is the smooth transition from the old to the new teaching hospital.

"Our goal is to keep offering services with as little disruption as possible," Youngquist says. Once in the new building different traffic patterns will have to be learned. In addition there will be some adjusting to the incorporation of the equine center within the new facility.

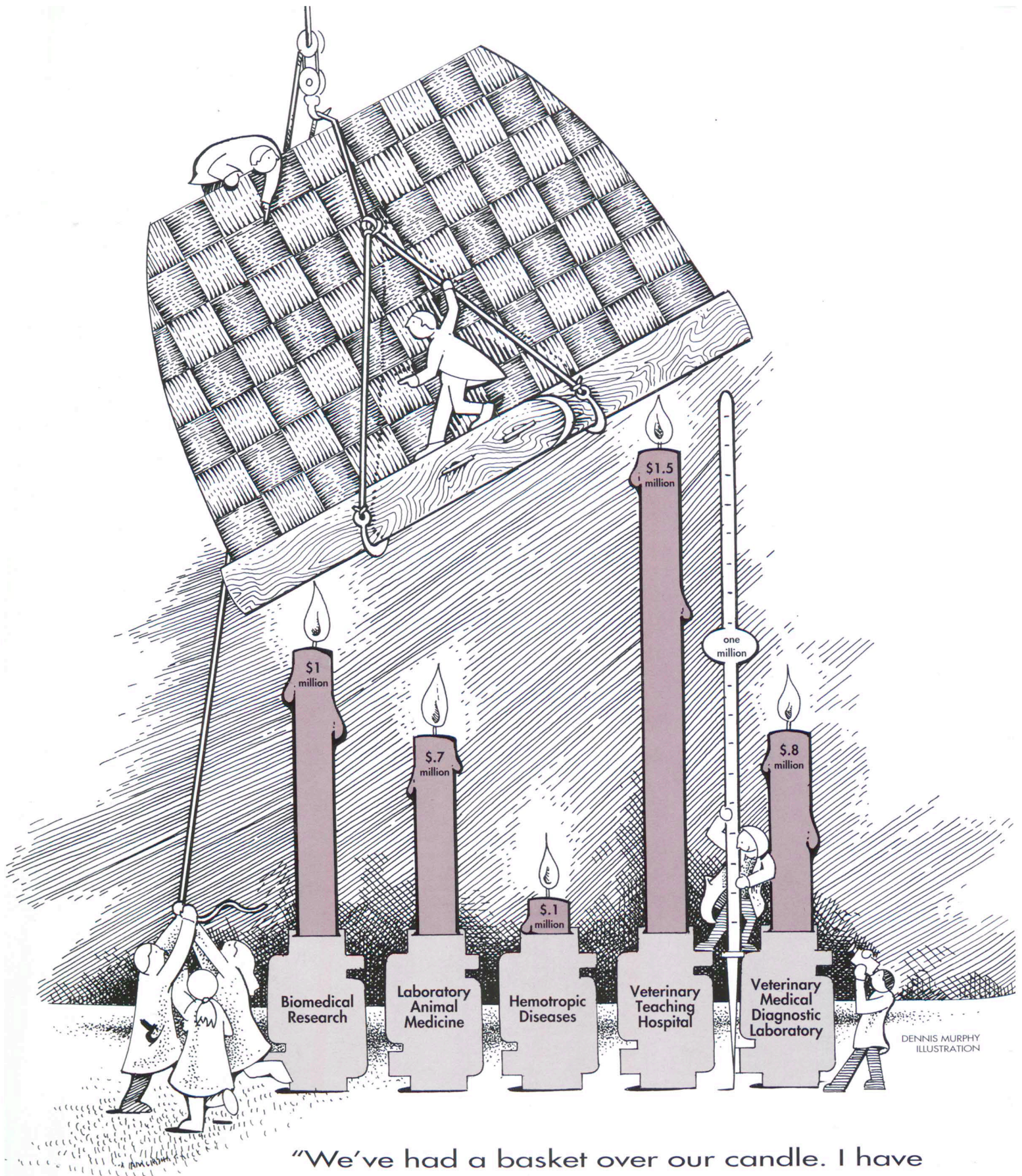
Youngquist sees the new facility as an



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advantage in attracting new people for the vacated positions. He added that *Money* magazine's selection of Columbia as the second most livable city in the country could be a drawing card as well.

Dr. Robert Youngquist plans to lead the veterinary medicine and surgery department through a smooth transition as they move from the old to the new teaching hospital.



"We've had a basket over our candle. I have been encouraged to remove the basket so the public can see our light shine,"

*Interim Dean Richard Adams*

# VETERINARY MEDICINE HELPS PAY ITS WAY

by Gwen Ratermann

Questions about how the College of Veterinary Medicine serves the needs of Missouri citizens continually challenge its administration. The high cost of training veterinarians is often cited, but very little is mentioned about the income generated by the College.

"We've had a basket over our candle. I have been encouraged to remove the basket so the public can see our light shine", **Interim Dean H. Richard Adams** says. Adams has learned that curators, legislators and the public at large do not always have a good idea about what the College does besides train veterinarians.

The College does much more than train outstanding veterinarians. Extramural activities of the College bring millions of dollars back to the University, emphasized **Associate Dean for Research Gerald Buening**. Several components of the College contribute to extramural financial support.

## Laboratory Animal Medicine

The National Institutes of Health have continuously funded this CVM area for more than two decades. Recent extramural awards total about \$3 million, with annualized amounts varying from \$0.4 million to \$0.7 million.

This program is a component of the veterinary pathology department, and it is extensively involved in basic molecular biology research. It also provides diagnostic service for research animal programs throughout the University and many other institutions across the United States.

"Few people outside the field of laboratory animal medicine appreciate the national stature of this program and its impact on biomedical research," Adams says.

## Hemotropic Diseases

This research program addresses major blood diseases of cattle and humans, anaplasma and babesia in cattle and malaria in

humans. Over the past five years, extramural awards for this research have exceeded \$0.5 million, annualized amounts averaging approximately \$100,000 through the veterinary microbiology department.

This program has an international component in Mexico and Costa Rica and collaborators at the University of Florida, Washington State University, and U.S. Department of Agriculture.

## Biomedical Research

The College has recently received approximately \$5 million from the National Institutes of Health (NIH) and about \$0.4 million from the American Heart Association (AHA). Of the eight new grants received by the University from the Missouri AHA in 1992, six were awarded to the College.

Annualized extramural grant support for biomedical research programs is close to \$1 million, an increase of almost 2000 percent since the early 1980s.

University of Missouri-Columbia has received only one NIH Physician Scientist Award. The award provided Scott Snyder, MD, five years' support totaling more than \$400,000 to receive research training in a CVM faculty laboratory.

A focus area in biomedical sciences involves cardiovascular diseases relevant to animals and humans. Projects address coronary artery disease, heart failure, hypertension and effects of exercise on the heart.

"We believe we now have the strongest cardiovascular program in a veterinary school in the country," Adams says.

The biomedical sciences department also addresses cellular and molecular aspects of breast cancer, fetal growth, prostate development, oxygen toxicity and premature birth. The department collaborates with the School of Medicine, Dalton Research Center, the College of Agriculture, Food and Natural Resources, and Molecular Biology.

### Veterinary Medical Diagnostic Laboratory

The College operates the only full service veterinary medical diagnostic lab in the state. Fees for service and a contract with the Missouri Department of Agriculture generates approximately \$0.8 million annually. The laboratory focuses on applied research related to diseases of food producing animals and animal food safety.

The diagnostic lab provides a vital service to the livestock and poultry industries of Missouri by diagnosing animal diseases, and "helping stop the spread of diseases before they decimate herds," Buening says.

### Veterinary Teaching Hospital

The CVM operates the only complete veterinary medical facility in the state. The present operation generates more than \$1.5 million in income annually.

Areas of special expertise include sur-

gery, endocrinology, ophthalmology, gastroenterology, reproductive disorders, embryo transfer, radiology and herd health management.

The teaching hospital offers clinical training for students, interns and residents, and provides comprehensive medical care to the livestock industries and animal-owning citizens of Missouri.

Buening points out that annualized extramural research funds received by CVM faculty consistently places the College as fourth or fifth of the University's 18 schools and colleges.

Extramural monies are all plowed back into CVM programs, benefitting students, staff, faculty and eventually the citizens of Missouri. Adams and Buening both agree that one component of the new era in veterinary medical education in Missouri, this college will strive to increase extramural support to help defray the taxpayers' portion of educating students.



## Shortly After Lauded Cystic Fibrosis Breakthrough Scientist Comes Home to Mizzou



The scientist who helped develop the first animal model for cystic fibrosis, a major breakthrough in research into this deadly disease, has joined the

faculty of the College.

**Dr. Lane Clarke**, DVM '82, participated in a team of researchers at the University of North Carolina-Chapel Hill that successfully produced genetically altered mice that suffer from cystic fibrosis. The animal model for the fatal disease is needed to speed up research aimed at a cure. The research was published Aug. 21, 1992, in *Science*, and featured in the *Wall Street Journal* and *Washington Post*.

The most common fatal genetic disease among caucasians, cystic fibrosis affects about 30,000 people. The disease occurs when a baby inherits two copies of a faulty gene that causes a defect in the cells lining many

organs in the body. The cellular defect interferes with movement of salt and water in the lungs, causing the buildup of a thick mucus, which can obstruct or cause infections in organs such as the intestines and lungs.

"Dr. Clarke's research is focused on the cellular mechanisms of this disease, and his program, which also has fundamental application to the study of other diseases affecting animals and humans, adds a new dimension to MU research," says Interim Dean Richard Adams.

Clarke says he decided to come to MU "because there are a lot of good investigators here who have a strong spirit of collaboration in many disciplines in both veterinary and human medicine. I wanted to work in a veterinary school with close ties to high quality research programs such as molecular biology, the School of Medicine, the VA hospital and the College of Agriculture. MU is one of the few universities in the world to have schools of agriculture, human medicine, and veterinary medicine all on the same

campus.

"I was especially attracted to the veterinary college's strong biomedical research and animal pathology groups. Basic biomedical research at the college is rapidly gaining national stature, and the college has the best animal diagnostic lab in the country. Finally, my parents live in Missouri, and I am an alum."

An expert in ion transport studies, Clarke received his bachelor's, master's and DVM degrees from MU. He practiced as a veterinarian in St. Louis for a few years before joining the research at North Carolina State and UNC-Chapel Hill. His parents live in Shelbyville, Mo.

"In the future," Clarke says, "veterinary research will focus more and more on the type of molecular biology research we used in the cystic fibrosis studies, knocking out genes to produce animal models for diseases, and MU can become a leader in this technology because of its preeminent biomedical research and laboratory animal programs."

# VECTOR

## Carrier of Small Animal News

by Gwen Ratermann

In Latin vector means "one who carries." Dr. C.B. Chastain, professor of small animal medicine and master mind of the VECTOR newsletter envisioned the publication as a vehicle "to carry current news on small animal medicine to students who are not currently assigned to the small animal block."

"The newsletter provides new information that is both interesting and important," Chastain says.

Chastain submitted his newsletter idea in the form of a proposal to the Mizzou Alumni Fund for Faculty Instructional Development. He received enough money from the fund to support publication for four months. The newsletter was provided for all students free of charge, upon request.

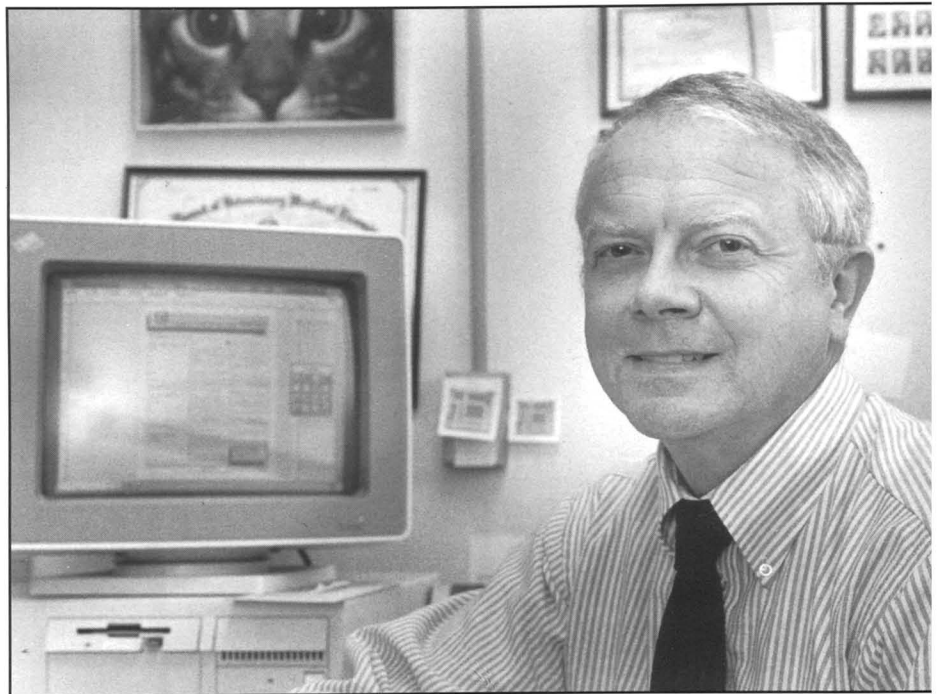
In order to pay for publishing the VECTOR once the grant money was utilized, Chastain invited practitioners to subscribe. The \$10 subscription covers printing costs and maintains Chastain's ability to offer the newsletter to students at no cost. Currently he says he has 254 subscribing practitioners from across the country and 149 readers within the college.

Chastain knew there were other benefits the newsletter could provide. "I thought the publication could be even more useful by inviting interns and residents to write articles. They could benefit by getting the practice they needed in writing these short articles, to get their feet wet. This could encourage them to write other articles for publication," Chastain says.

The four-page, monthly newsletter features articles written by Chastain, other faculty members, interns and residents. Each month a postage-paid survey card is included. The results from the preceding month's survey are published in each issue as well.

The survey information is beneficial to the small animal medicine faculty and to the practitioners who read the results of the survey.

"This gives us a way of spreading information and it is of teaching value, too. It tells us what's being done in practice right now," Chastain says. "We all learn from each other and we teach each other, too. I think



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of it as a two way street for everybody."

Chastain stated his philosophy about learning in the very first newsletter:

"If you have your required block of small animal medicine I am sure you realize that there is more to learn. Maybe you even realize that learning will be a never ending process. It certainly is for me.


This trial newsletter is a result of the realization that learning is not only never ending it is also often time-consuming and can be confusing. The residents and I will try to provide you the most important news we are aware of in small animal medicine on a monthly basis."

According to Chastain subscriber drop out rate for most publications is "a staggering 50%." The VECTOR has experienced less than a 10 percent drop out rate. To his surprise most readers' comments are positive, too.

Chastain's writing abilities are not limited to the VECTOR. He writes and edits *Small Animal Clinical Endocrinology*, a journal published by Daniels Pharmaceuticals. He also writes "On Our Terms," a column in the *Journal of the Veterinary Technician*.

Dr. C.B. Chastain is the creator of VECTOR, which has developed an enthusiastic national readership. The newsletter is read by 254 readers from Alaska to Florida, California to Maine.





# **NEW HIP REPLACEMENT PROCEDURE**

***on the cutting edge***

***by Gwen Ratermann***



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**Dr. John Payne poses before starting orthopedic surgery on the dog being prepped in the background.**

**T**his fall the small animal surgery team has started utilizing a new hip replacement procedure. "This is a state-of-the-art surgical procedure that is on the cutting edge of veterinary medical technology. No pun intended," says **Dr. John Payne**, veterinary surgical specialist. Payne and **Dr. James Tomlinson**, small animal surgeon, work together to perform the hip replacement surgery.

The new system has been adopted because the old one became unavailable. The new system requires the same basic operation, but there is more sophisticated instrumentation. The teaching hospital will be using **BioMedtrix's** modular hip system, which offers components which are interchangeable.

The new system offers three interchangeable parts that will provide the best fit for any size dog. The new system consists of the stem, the ball and the socket. The system previously used combined the stem and the ball in one piece.

"The interchangeability of the pieces will slightly increase the number of dogs we can do surgery on," Payne says.

Dogs weighing as little as 30 pounds will be able to receive the replacements now. Before the surgery was only available to dogs weighing 40 pounds or more.

Since this system has only been in exist-

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The hip replacement stem is juxtaposed over an x-ray of the joint it will replace.



JIM CURLEY

ence for a year and a half, the veterinary teaching hospital will be one of the first facilities in the nation to offer the versatile system to their clients.

Payne says there has been a misconception that dogs don't do well with hip replacement surgery. "That may have been true in the late '70s or early '80s when people first starting doing them but that really isn't true now. We have a 97 percent plus success rate with good owner compliance," Payne said.

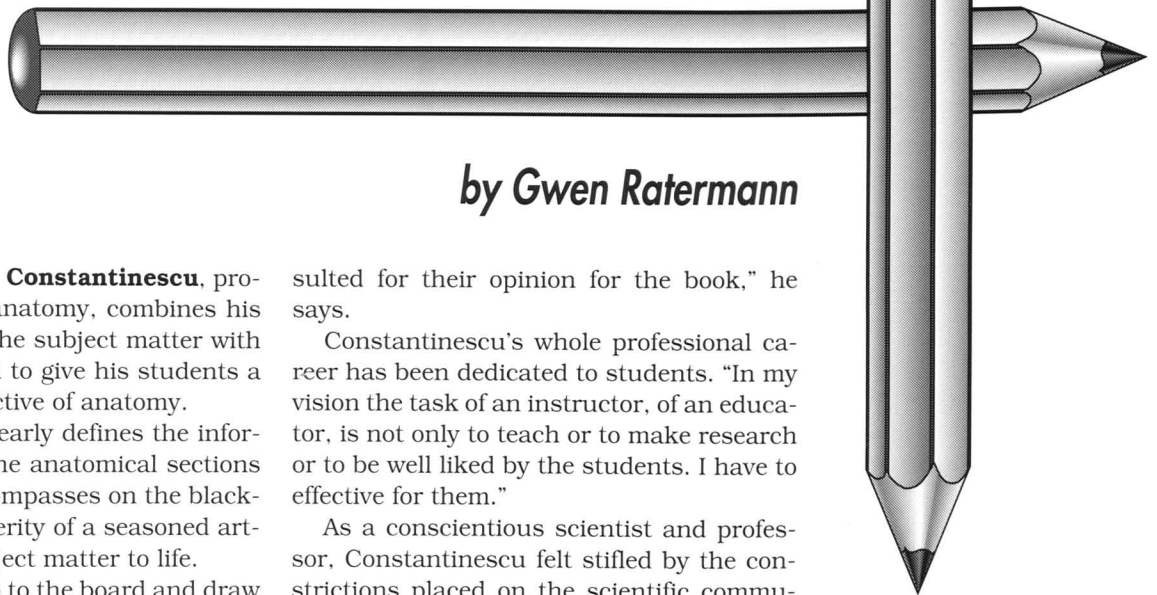
Payne adds that the complication rate is very low. Over the past three years at the

University of Missouri veterinary teaching hospital, only three hips have dislocated after surgery and there have been no infections. The team does replacement surgery on a fairly regular basis, usually doing 25 to 30 a year.

The vast majority of the their patients, according to Payne, are dogs with hip dysplasia. The surgery is occasionally done for other reasons, including remedying an old fracture that healed poorly or helping to the extend the productivity of some older working dogs.

# MU's Michelangelo

## Veterinary anatomist combines science and art



*by Gwen Ratermann*

**Dr. Gheorghe M. Constantinescu**, professor of veterinary anatomy, combines his artistic depiction of the subject matter with scientific information to give his students a well-rounded perspective of anatomy.

Constantinescu clearly defines the information by drawing the anatomical sections his daily lecture encompasses on the blackboard. With the dexterity of a seasoned artist he brings the subject matter to life.

"He can literally go to the board and draw almost a publication-quality anatomical rendition," Interim Dean H. Richard Adams says. "He is one of the top two or three anatomical artists in the world."

"By putting things on the blackboard I open the eyes of the students so they can better understand the facts," Constantinescu explains.

Constantinescu has had much experience in drawing for publications around the world. Since he began teaching anatomy in his homeland of Romania in 1965, Constantinescu has written 245 publications including 16 books, one of which is his own illustrated textbook.

Dr. C, as his students affectionately refer to him, spent four years preparing the text and 504 illustrations for his book. Once his first draft was finished he asked 10 of his top ranking students that year to give their opinion about the effectiveness of his book's presentation. "The publisher was impressed about my idea that students would be con-

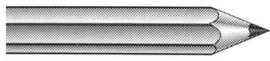
sulted for their opinion for the book," he says.

Constantinescu's whole professional career has been dedicated to students. "In my vision the task of an instructor, of an educator, is not only to teach or to make research or to be well liked by the students. I have to be effective for them."

As a conscientious scientist and professor, Constantinescu felt stifled by the restrictions placed on the scientific community in communistic Romania in the late '70s and early '80s. The faculty of the universities across Romania were not allowed to collaborate with their colleagues outside of Romania under the threat of imprisonment and loss of civil rights.

Constantinescu found this sort of psychological terrorism intolerable. Thus he and his wife, Ileana, made the very difficult decision to flee their homeland. "I thought, it is possible to jump over the Iron Curtain, it will be a great step for myself and my family. I looked for a better world to work and live in and to enjoy my capacity and my talent in doing things," he says. With that desire burning inside, Constantinescu and his wife endured two arrests and one imprisonment to reach their eventual freedom in West Germany.

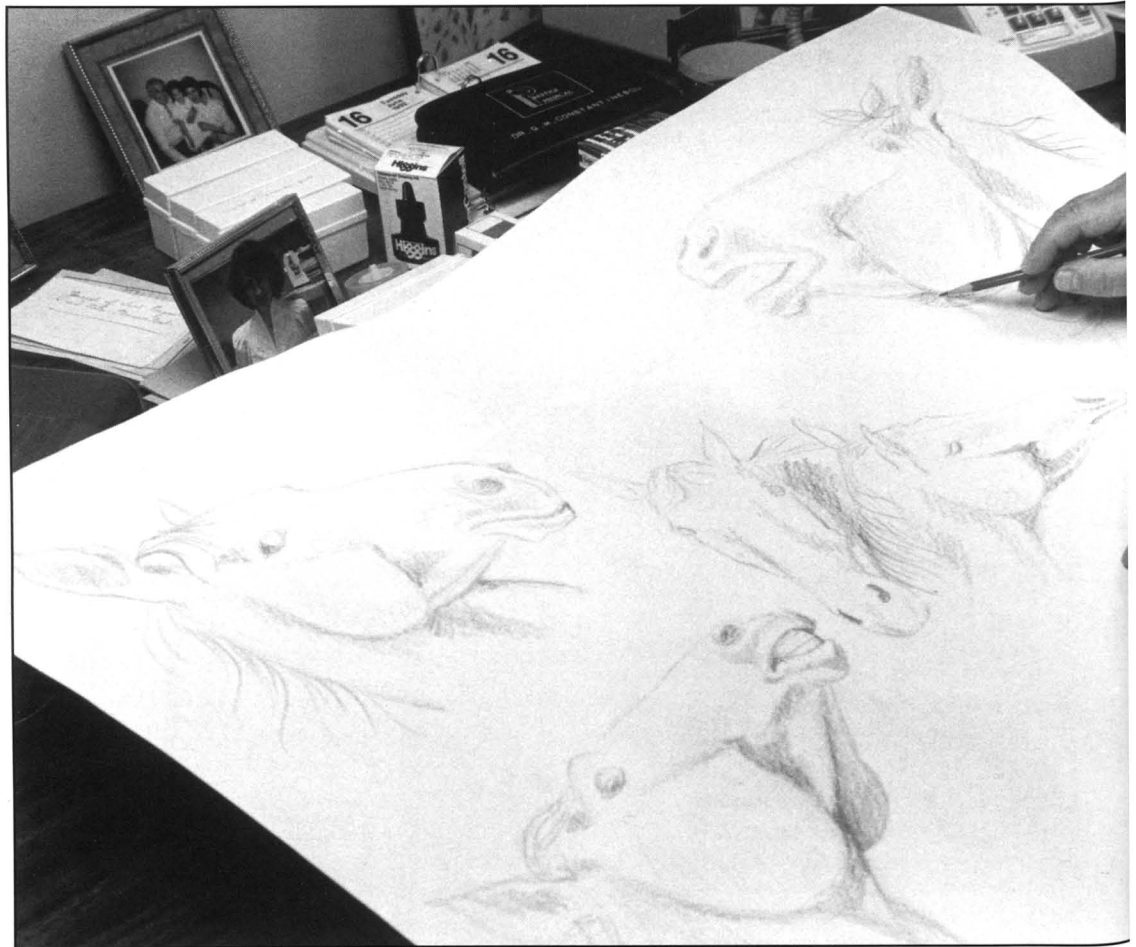
Constantinescu's propensity to risk is reflected through his art. His drawings bear the precision that comes from knowing the subject intimately; the movements, the col-



## MU's Michelangelo

Right: Dr. Gheorghe M. Constantinescu's drawings reveal an understanding of each subject which comes from years of studying and teaching veterinary anatomy.

Opposite page: In 1982, Dr. Constantinescu risked his life, his job and the threat of never seeing his relatives again in order to seek personal and professional freedom outside of his homeland of Romania.



oring, the relationship each muscle, bone and blood vessel has on the others.

Centuries ago another artist, Michelangelo, only felt confident with his human drawings and sculptures after he had dissected human cadavers. Like Michelangelo, Constantinescu has pushed himself to broader artistic expressions.

His understanding of anatomy gains another dimension through his sculpture. His creations include a basrelief sculpture of 17 galloping horses adorning three walls of the University of Agricultural Sciences of Banat in his hometown of Timisoara, Romania. Each wall accommodates a 20-foot-long, 10-foot-high section of the sculpture. Clydesdale Hall, the new teaching hospital at MU will also feature one of Constantinescu's sculptures.

Constantinescu's versatile and multifaceted contributions to the field of veterinary anatomy were awarded this past summer.

On July 15, Constantinescu and his family returned to Timisoara for the first time since their flight to freedom in 1982 and Romania's revolution to freedom in 1989.

Constantinescu was awarded the title of *Doctor Honoris Causa* by the University of Agricultural Sciences of Banat, where he was on the faculty for 17 years. The honor is only bestowed on alumni or former faculty by the most respected universities in Europe for distinguished excellence in teaching, research, administration or public service.

"It was a great honor for me and in the same time a proof that things have changed radically," Constantinescu says. Only three years after the revolution his Romanian colleagues have shown their respect for Constantinescu's world renowned stature as a veterinary anatomist by presenting him with this prestigious award.



JIM CURLEY PHOTOS

## Biomedical Sciences

**Dr. H. Richard Adams**, professor and interim dean, has received a \$25,000 grant from the Missouri Affiliate, American Heart Association to research "Endotoxemia, Cardiodynamics, and Intracellular  $Ca^{2+}$  for the period from July 1, 1992 to June 30, 1993. He has published "Endothelial-derived relaxing factor and nitric oxide production in cultured endothelial cells: direct inhibition by *E.coli* endotoxin in the *American Journal of Physiology* with Drs. P.R. Myers, T.F. Wright and M.A. Tanner. He published "Adrenergic responsiveness and intrinsic sinoatrial automaticity of exercise trained rats" in *Medical Science in Sports and Exercise* with Drs. M.E. Schaefer, J.A. Allert and M.H. Laughlin. He published "Effects of exercise training on vasomotor reactivity of porcine coronary arteries" in the *American Journal of Physiology* with Drs. C.L. Oltman, J.L. Parker and M.H. Laughlin. He published "New perspectives in circulatory shock: Pathophysiologic mediators of the mammalian response to endotoxemia and sepsis" in the *Journal of the American Veterinary Medical Association* with Dr. E.M. Green. He published "Involvement of prostaglandins and leukotrienes in the pathogenesis of endotoxemia and sepsis" in the

*Journal of the American Veterinary Medical Association* with Dr. G.D. Bottoms. He published "Inhibition of NO synthesis in septic shock" in *LANCET* with Drs. R.S. Hotchkiss, I.E. Karl and J.L. Parker. Adams was the chairman of the Symposium on New Perspectives in Medicine: The Vascular Endothelium in Health and Disease at the 1992 American Veterinary Medical Association (AVMA) meeting in Boston, Mass. on August 4, 1992. He gave two presentations at this symposium including "Endothelium as an Endocrine and Paracrine Organ," and "Endothelial-Derived Vasoactive Factors in Shock and Trauma."

**Dr. John F. Amann**, associate professor, received the Student American Veterinary Medical Association Basic Science Teaching Award at the American Veterinary Medical Association meeting in Boston, Mass. in August 1992.

**Dr. Gheorghe M. Constantinescu**, professor, published "Equine enterolithiasis" in *Compendium on Continuing Education for the Practicing Veterinarian* with Drs. Rachel C. Murray and Eleanor M. Green. He published the book, *Illustrated Veterinary Anatomical Nomenclature* with Drs. O. Schaller, R.E. Habel, W.O. Pack, P. Primoens and N.R. de Vos. Constantinescu published several book chapters in 1992 including the following chapters of W.B. Saunders: "Heart; In: Equine Surgery" with Dr. H.E. Garner; "Vascular Surgery; In: Equine Surgery" with Dr. C.L. Sweeney; "The Spleen; In: Equine Surgery" and "Lymph Nodes and

Lymphatics; In: Equine Surgery" with Drs. D.A. Wilson, J.F. Amann and he presented "Topographical relations of the mandibular branch of the trigeminal nerve in the cat" at the XIXth Congress of the European Association of Veterinary Anatomists in Gent, Belgium on August 25, 1992. He was awarded the title of "Doctor honoris causa" of the University of Agricultural Sciences of Banat in Timisoara, Romania on July 15, 1992.

**Dr. M. Harold Laughlin**, professor and acting chairman, received a \$684,452 grant from the National Institutes of Health (NIH) for "Training: Muscle Blood Flow and Capillary Dynamics." The duration of the grant is from December 1, 1988 to November 30, 1993. He also received a \$807,201 grant from NIH for "Exercise: Coronary Heart Disease." The duration of this grant is from April 1, 1991 to March 30, 1995. He published "Characterization of vasomotor reactivity of coronary arteries of exercise trained pigs" in the *American Journal of Physiology* with Drs. C.L. Oltman, J.L. Parker and H.R. Adams. He published "Endotoxin impairs flow-induced vasodilation of porcine coronary arterioles" in the *American Journal of Physiology* with Drs. L. Kuo, W.M. Chilian and M.J. Davis. He published "Myocardial adrenergic responsiveness and intrinsic sinoatrial automaticity of exercise trained rats" in *Medical Science in Sports and Exercise* with Drs. M.E. Schaefer, J.A. Allert and H.R. Adams.

**Dr. Leona J. Rubin**, assistant professor, received a grant from the Missouri Affiliate of the Amer-

ican Heart Association to research "Molecular Mechanisms of Endotoxemia in the Myocardium" from July, 1992 to June, 1994. She published "Quantitation of inositol phosphates by gas chromatography mass spectrometry: High mass analysis provides femtomole sensitivity" in *Lipid Metabolism in Signalling Systems, Methods in Neuroscience* with Drs. L.J. Rubin, F. Hsu and W. Sherman.

## Diagnostic Laboratory

**Dr. Alex J. Bermudez**, assistant professor, presented the poster of "Effects of Fumonisin B<sub>1</sub> Containing Fusarium moniliforme Culture Material on Turkey Poults" at the AVMA meeting in Boston, Mass. in August 1992. He published the poster with Drs. D.R. Ledoux, G.E. Rottinghaus and T.S. Weibking. Dr. D.R. Ledoux, principle investigator; and co-investigators, Drs. G.E. Rottinghaus and Bermudez received a \$16,570 grant from the Southeastern Poultry and Egg Association to research "Effects of Fumonisin B<sub>1</sub> in Poultry." The grant is for the period from April 20, 1992 through July 20, 1993.

**Dr. Lanny Pace**, assistant professor, published "Necropsy findings from Vietnamese potbellied pigs, 33 cases" in the *Journal of the Veterinary Diagnostic Investigation* with Drs. John M. Kreeger, Margaret A. Miller, Susan E. Turnquist, John R. Fischer, Gayle C. Johnson, Jim R. Turk, Louis L. Pittman, William H. Fales, Carol W. Maddox, Audrey A. Rottinghaus and Harvey S. Gosser. He published

"Enteric *Clostridium perfringens* infection associated with parvoviral enteritis in dogs: 74 cases (1987-1990)" in *Journal of the American Veterinary Medical Association* with Drs. James Turk, William Fales, Margaret Miller, John Fischer, Gayle Johnson, John Kreeger, Susan Turnquist, Louis Pittman, Audrey Rottinghaus and Harvey Gosser. He collaborated on several presentations for the Vth International Symposium of the World Association of Veterinary Laboratory Diagnosticians in Lyon, France from June 9 to 12, 1992. The presentations included "Immunohistochemical staining of feline malignant fibrous histiocytomas" with Drs. John M. Kreeger, Margaret A. Miller, James R. Turk and John R. Fischer; "Design and development of a local area network and windowed software interface in a veterinary diagnostic laboratory" with Drs. John M. Kreeger, Harvey S. Gosser, Roger W. McAllister and Michael V. Turner; and "Antimicrobial susceptibility of Salmonella choleraesuis from Missouri swine" with Drs. William Fales, Carol Maddox, James Turk, Margaret Miller, John Kreeger, Gayle Johnson, John Fischer, Susan Turnquist, Louis Pittman and Harvey Gosser.

**Dr. George E. Rottinghaus**, associate professor, published "Mycotoxin occurrence in waste field corn and ingesta of wild geese in the northern great plains" in *Prairie Naturalist* with Drs. K.F. Higgins, R.M. Barta, R.D. Neiger and R.I. Sterry. He published "A rapid, sensitive thin layer chromatography procedure for the detection of fumonisin B<sub>1</sub>

and B<sub>2</sub>" in *Journal of Veterinary Diagnostic Investigation* with Drs. C.E. Coatney and H.C. Minor. He published "Fumonisin toxicity in broiler chicks" in the *Journal of Veterinary Diagnostic Investigation* with Dr. D.R. Ledoux, Dr. T.P. Brown and Dr. T.P. Weibking. He published "Fumonisin mycotoxicosis in broilers: Performance and pathology" in *Avian Diseases* with Drs. T.P. Brown and M.E. Williams. Dr. E.V. St. Omer and he wrote "Biochemical determination of cholinesterase activity in biological fluids and tissues" in the book titled *Clinical and Experimental Toxicology of Organophosphates and Carbamates*, Ballantyne B and Mars TC. He presented "Effects of different levels of fumonisin B<sub>1</sub> produced by Fusarium moniliforme cultures on the young poult" with Drs. D.R. Ledoux, T.S. Weibking, A.J. Bermudez and J.R. Turk at the XIX World Poultry Congress in Amsterdam, Holland on September 20 to 24, 1992. He presented "Effects of fumonisin B<sub>1</sub> containing Fusarium moniliforme culture material on turkey poults" at the annual meeting of AVMA in Boston, Mass., July 31 to August 5, 1992.

**Dr. James R. Turk**, associate professor, published "Enteric *Clostridium perfringens* infection associated with parvoviral enteritis in dogs: 74 cases (1987-1990)" in the *Journal of the American Veterinary Medical Association* with Drs. W.H. Fales, M.A. Miller, L.W. Pace, J.R. Fischer, G.C. Johnson, J.M. Kreeger, S.E. Turnquist, L.L. Pittman, A.A. Rottinghaus and H.S. Gosser.



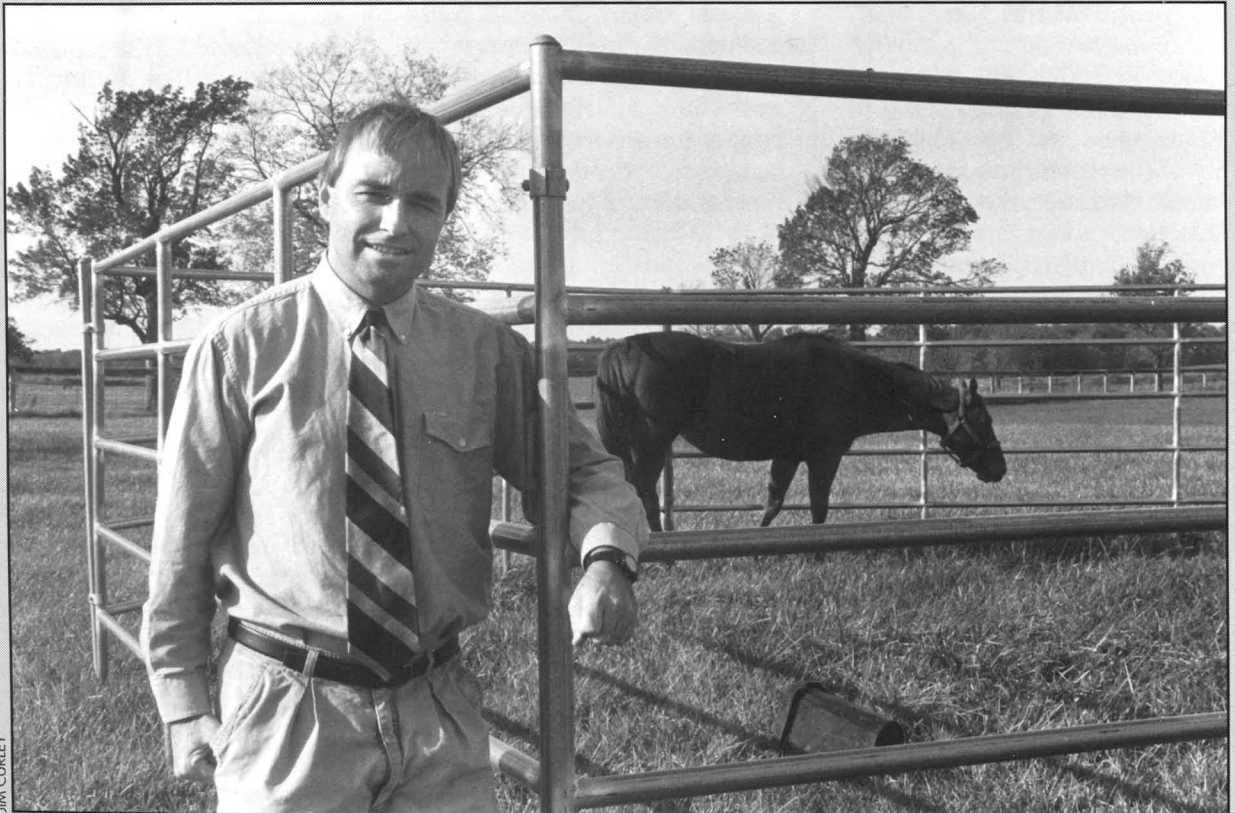
JIM CURLEY

Dr. G. Daniel Boon

## NEW FACULTY GIVE VARYING

Two new faculty members have joined the staff of the College of Veterinary Medicine. **Dr. G. Daniel Boon** joins the clinical pathology section of the Department of Veterinary Pathology from Abbott Laboratories, a pharmaceutical company in Waukegan, Ill. Boon has taken over as the section head of clinical pathology in the wake of Dr. Donald Schmidt's retirement.

Boon received his DVM and MS degrees both from Colorado State University in 1969 and 1974 respectively and became board



JIM CURLEY

Dr. Philip Johnson

## REASONS FOR JOINING CVM

certified as a veterinary clinical pathologist in 1975.

Before going to Abbott Laboratories Boon was on the faculties of Purdue University and Mississippi State University where he did National Institutes of Health (NIH) funded research involving *in vitro* toxicology using bone marrow culture systems.

In addition to administering the clinical pathology laboratory, performing service duties, and teaching, Boon plans to continue his research. "I have been away from academics for a couple of years, so it will take a little while to get a research program started again, but I intend to do research in clinical chemistry or bone marrow culture systems," Boon says.

There were several reasons for Boon's attraction to the University of Missouri. "The College of Veterinary Medicine at MU has a very good reputation, and Columbia is a gorgeous town," Boon says. "I have known Dr. Steven Stockham (the other clinical pathologist on faculty) for a long time. He is already a friend and respected colleague, and I am looking forward to working with him."

**Dr. Philip Johnson** has been teaching at the equine center since August 1991. Johnson teaches equine internal medicine, specializing in gastroenterology.

Originally from Bath, England where he had been in a companion animal practice, Johnson came to the United States when he was offered a position in the equine

internal medicine residency program at the University of Illinois.

What was supposed to be a temporary stay in the United States has become more of a permanent commitment for Johnson. "Now I go back to Bath every two or three years for an extended visit," Johnson says.

"I like the climate here and the city, as well," Johnson says.

He gives a variety of other reasons for his decision to work at MU including an excellent work environment and adequate caseload.

"People are supportive and pleasant to work with here. There is a good number of sick horses; a reasonably large caseload. The horse-owning public is easy going in the Midwest as opposed to other areas of the country," Johnson says.

Johnson is looking forward to the equine center's incorporation into the new veterinary teaching hospital. "The new facilities will make our ability to serve the public better and it will be a nicer environment for people to bring their horses to. We will be able to develop our relationship with the horse-owning public and the equine veterinarians in the state of Missouri," Johnson says. "We will be seen as readily accessible and easy to communicate with."

Johnson also sees their close proximity to the library and other facilities of the CVM as another advantage for the equine center's inclusion in the new hospital.

## Medicine and Surgery

**Dr. Mark A. Anderson**, surgery resident, published "What is your diagnosis? — supravulvar pulmonic stenosis" in the *Journal of the American Veterinary Medical Association* with Drs. F.A. Mann and E. Aronson. Drs. D. O'Brien, J. Amann. He received the 1992 Student Chapter of the American Veterinary Medical Association (SCAVMA) Student Choice Award for the Third Annual College of Veterinary Medicine Teaching Techniques day for the use of computers, "Interactive Multimedia Program to Teach the Neurologic Exam."

**Dr. Everett Aronson**, associate professor, published "What is your diagnosis? — supravulvar pulmonic stenosis" in the *Journal of the American Veterinary Medical Association* with Drs. M.A. Anderson and F.A. Mann. He attended a seminar on teaching at the American Animal Hospital (AAHA) meeting in New Orleans, La., April 24 through 28, 1992.

**Dr. Keith Branson**, assistant professor, presented an educational booth, "Epidural Anesthesia/Analgesia in Dogs and Cats" with Dr. Marjorie E. Gross at the American Veterinary Medical Association (AVMA) meeting in Boston, Mass., in August 1992.

**Dr. William Braun, Jr.**, associate professor, published "Control of Fish, Follicular Development and Estrus Synchronization in the Mare with Steroid-Free Follicular Fluid" in *Theriogenology* with Drs. H. Plata-Madrid, W.E. Loch, R.S. Young-

quist, D.L. Thompson, Jr., K.G. Bennett-Wimbush, C. Wilkerson, G. Bouchard, M.F. Smith and J.J. Aveiro. He gave presentations at the 59th AAHA convention in New Orleans, La., April 25 to 30, 1992.

**Dr. Stan W. Casteel**, assistant professor, attended the AVMA meeting in Boston, Mass., in August 1992.

**Dr. C.B. Chastain**, professor, wrote the introduction to the endocrine and metabolic system sections in *Handbook of Small Animal Practice*. He also edited the section of the handbook on endocrine and metabolic systems.

**Dr. Linda L. Collier**, associate professor, published "Familial cataracts and concurrent ocular anomalies in Chow Chows" in *Journal of the American Veterinary Medical Association* with Drs. B. Keith Collins, Gary S. Johnson, Hisashi Shibuya, Cecil P. Moore and Jeanette M.A. da Silva Curiel. She has been awarded MU campus funding for her Faculty Development Project to gain contemporary knowledge of experimental mammalian genetics.

**Dr. B. Keith Collins**, assistant professor, made presentations at the 59th AAHA convention in New Orleans, April 25 to 30. He published "Familial cataracts and concurrent ocular anomalies in Chow Chows" in the *Journal of the American Veterinary Medical Association* with Drs. Linda Collier, Gary Johnson, Hisashi Shibuya, Cecil Moore and Jeanette da Silva Curiel.

**Dr. Steven J. Covert**, resident, passed the general examination for the American College of Veterinary Internal Medicine.

**Dr. V.K. Ganjam**, professor, attended the AVMA annual meeting in Boston, Mass., in August 1992.

**Dr. Marjorie E. Gross**, assistant professor, was at the annual AVMA meeting in August 1992 to present the educational booth "Epidural Anesthesia/Analgesia in Dogs and Cats" with Dr. Keith Branson.

**Dr. Allen W. Hahn**, professor and research investigator, presented lectures and labs at the AAHA meeting in New Orleans, April 25 to 29, 1992. He attended the annual AVMA meeting in Boston, Mass., in August 1992.

**Dr. Brent Jones**, associate professor, was chairman of the Scientific Program Committee meeting, and made presentations at the AAHA annual meeting in New Orleans, La., April 25 to 30, 1992. He presented "Endoscopy for the Practitioner," "Hepatic Encephalopathy," "Therapy for Acute Diarrhea in the Dog," and "Pancreatitis - Current Status of Diagnosis and Treatment" at the AVMA annual meeting in Boston, Mass., in August 1992.

**Dr. Margaret R. Kern**, small animal resident, published "Analysis of serum protein concentrations after severe thermal injury in a dog" in *Veterinary Clinical Pathology* with Drs. S.L. Stockham and J.R. Coates. She passed the general examination for the American College of Veterinary Internal Medicine.

**Dr. Fred Anthony Mann**, assistant professor, published "What is your diagnosis? — supraventricular pulmonic stenosis" in the *Journal of the American Veterinary Medical Association* with Drs. M.A. Anderson and E. Aronson. He also published "Comparison of intranasal and intratracheal oxygen administration in healthy awake dogs" in the *American Journal for Veterinary Research* with Drs. C. Wagner-Mann, J.A. Allert and J. Smith.

**Dr. Nat T. Messer, IV**, director of the Equine Center, attended the annual AVMA meeting in Boston, Mass., in August 1992.

**Dr. Cecil P. Moore**, associate professor, published "Familial cataracts and concurrent ocular anomalies in Chow Chows" in the *Journal of the American Veterinary Medical Association* with Drs. B. Keith Collins, Linda L. Collier, Gary S. Johnson, Hisashi Shibuya and Jeannette M.A. da Silva Curiel.

**Dr. Dennis O'Brien**, associate professor, received the 1992 SCAVMA Student Choice Award for the Third Annual College of Veterinary Medicine Teaching Techniques Day for the use of computers, "Interactive Multimedia Program to Teach the Neurologic Exam: A Preliminary Report" with Drs. M. Anderson and J. Amann.

**Dr. Eric R. Pope**, associate professor, was promoted to associate professor with tenure in September 1992.

**Dr. Shirley Shelton**, temporary instructor, will serve as an instructor in neurology from July 20, 1992 through June 30, 1993, when the neurology residency position will be filled.

**Dr. James Tomlinson**, associate professor, attended the AAHA meeting in New Orleans, La., April 25 to 29, 1992 and presented the following papers: "Repair of Coxofemoral Luxations," "Repair of Patella Luxations," "Wobbler's disease - Current Thoughts," "Repair of Cranial Cruciate Injuries," and "Pre and Post-Op Care of the Orthopedic Patient."

**Dr. Laurie Mills Wallace**, associate professor, has been promoted and received tenure.

**Dr. Robert S. Youngquist**, professor and interim chairman, has published "Control of Fish, Follicular Development and Estrus Synchronization in the Mare with Steroid-Free Follicular Fluid" in *Theriogenology* with Drs. H. Plata-Madrid, W.E. Loch, D.L. Thompson, Jr., K.G. Bennett-Wimbush, C. Wilkerson, G. Bouchard, M.F. Smith, W.F. Braun and J.J. Aveiro.

## Microbiology

**Dr. Gary K. Allen**, assistant professor, published "Release of tumor necrosis factor-alpha from bovine alveolar macrophages stimulated with bovine respiratory viruses and bacterial endotoxins" with Drs. S.E. Beinhoff and J.N. Berg in *Veterinary Immunology and Immunopathology*. He published "Absorption of an alternate source of immunoglobulin in the puppy" in *American Jour-*

## CVM Bids Farewell to Retirees

The College of Veterinary Medicine bids a fond farewell to six retiring members of the administration and faculty. **Dr. Robert Kahrs**, dean emeritus, is now directing the newly formed Veterinary Services National Center for Import and Export in Hyattsville, Md. and is living in Greenbelt, Md.

Although officially retired, **Dr. Kenneth Niemeyer**, associate dean of students and alumni affairs, is remaining in his capacity on a part-time basis until May 1993. He plans on staying in Columbia.

**Dr. Frankee Page Eliot**, former director of the anesthesiology unit, has moved back to her home in Edgewood, N.M. **Dr. A. David**

**Weaver**, professor of small animal medicine, has returned to Great Britain where he lives in Glasgow, Scotland. He is currently working for England's Ministry of Agriculture, Fisheries and Food.

**Dr. Harold E. Garner**, who did extensive cardiovascular and endotoxemic research at the Equine Center and Dalton Research Center, is retiring in Columbia, Mo., as is **Dr. Donald A. Schmidt**, former director of the clinical pathology section. Dr. Garner will continue as director of IMMIVAC Laboratory. **Dr. Bruce D. Rosenquist**, professor of virology, is living in Isabella, Mo.



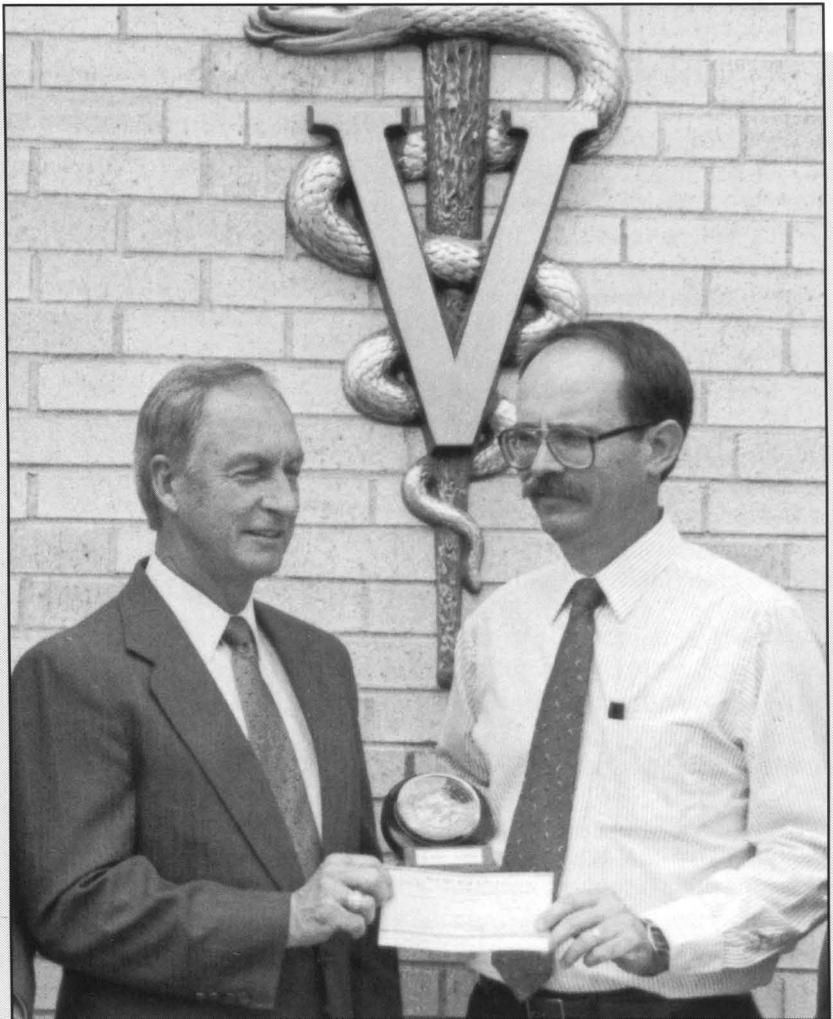
*nal of Veterinary Research* with Drs. G.F. Bouchard, H. Plata-Madrid, R.S. Youngquist, G.M. Buening and A.L. Paine. He published an abstract, "Interleukin-6 in sublethal intravenous endotoxin challenged neonatal foals" with Drs. J.A. Robinson, E.M. Green and H.E. Garner at the American College of Veterinary Medicine proceedings.

**Dr. John N. Berg**, professor, attended the 12th American Veterinary Medical Association Educational Symposium, June 12 to 16, 1992 in Ames, Iowa.

**Dr. C.A. Carson**, professor and chairman, published "Chromosomes of *Babesia bovis* and *Babesia bigemina*. Molecular and Biochemica," in *Parasitology* with Drs. B.K. Ray, C.W. Bailey and J.B. Jensen.

**Dr. Robert M. Corwin**, professor, attended the American Veterinary Medical Association/American Association of Veterinary (AAVP) Parasitologists annual meeting, August 1 to 4, 1992 in Boston, Mass. He presented "Anthelmintic Resistance of Sheep Parasites" at the Presidential Symposium. He presented "Comparative Efficacies of 4 Anthelmintics for Infections of *Toxocara* and *Ancylostoma* in Dogs" with Dr. M.L. Michalski at the AAVP general session. He presented "Performance of Stocker Calves in Missouri Infected with Larval *Fasciola hepatica*" with Dr. S. Marley.

**Dr. D. Mark Estes**, assistant professor, received \$4,500 from the Ag Experiment Station to do research regarding cytokine



Dr. Steven Stockham, associate professor of clinical pathology, (right) is shown here accepting the MSD AGVET award from Dr. M.G. Scroggs, a technical services manager for Merck, Sharp, & Dohme Company. Stockham received the company sponsored MSD AGVET award for Creativity in Teaching for the College of Veterinary Medicine. Stockham offers an elective course for veterinary students in clinical pathology in which small group tutorial methods are used. This is a form of problem-based, student directed learning where the students make the decisions. According to Stockham, "they decide what they learn and when they learn it within the guidelines of the course objectives."

genes. He received a \$2,961 Committee on Research grant, as well.

**Dr. Theodore J. Green**, associate professor, received a \$500 gift from Merck and Company for research.

**Dr. Bimal K. Ray**, assistant professor, received National Institutes of Health grant of \$70,000 to do research on "Regulation of Serum Amyloid A Protein Synthesis. He also received a Committee on Research grant of \$3,500.

**Dr. James G. Thorne**, associate professor, received a Committee on Research grant of \$2,900.

## Pathology

**Dr. Cynthia Besch-Williford**, assistant professor, published "Diagnostic Exercise: Visceral Granulomas in a Fish" in *Laboratory Animal Science* with Drs. A. Grady and A. Wolff. She published "What's your diagnosis? Respiratory Disease in a Colony of Rats" in *Laboratory Animal* with Dr. Diane D. Cundiff. She published "Evaluation of a Subcutaneously Implanted Chamber for Antibody Production in Rabbits" in *Laboratory Animal Science* with Drs. D.J. Clemons, Earl K. Steffen, Lela K. Riley and D.H. Moore.

**Dr. Linda L. Collier**, associate professor, published "Familial Cataracts and Concurrent Ocular Anomalies in Chow Chows" in the *Journal of the American Veterinary Medical Association* with Drs. B. Keith Collins, Gary S. Johnson, Hisashi Shibuya, C.P. Moore and J.M.A. da Silva Curiel. She published "Immunotherapy of Periorbicular Squamous Cell Carcinoma with Metastasis in a Pony" in *American Veterinary Medical Association* with Drs. Terri McCalla and C.P. Moore.

**Dr. Gary S. Johnson**, associate professor, published "Familial Cataracts and Concurrent Ocular Anomalies in Chow Chows" in the *Journal of the American Veterinary Medical Association* with Drs. B. Keith Collins, Linda L. Collier, Hisashi

Shibuya, C.P. Moore and J.M.A. da Silva Curiel.

**Dr. Lela K. Riley**, assistant professor, received a National Cancer Institute Program Resources Inc., grant to study Novel Rodent Parvoviruses — Development of Diagnostic Reagents and Assays from June, 1992 through September, 1993. She published "Evaluation of a Subcutaneously Implanted Chamber for Antibody Production in Rabbits" in *Laboratory Animal Science* with Drs. D.J. Clemons, D. Besch-Williford, Earl K. Steffen and D.H. Moore. She published "Cytotoxicity of *Bacillus piliiformis*" in the *Journal of Medical Microbiology* with Drs. C.J. Caffrey, V.S. Musille and J.K. Meyer.

**Dr. Donald A. Schmidt**, professor, received the Norden Award for Excellence in Teaching in May, 1992 for the fifth time.

**Dr. Earl K. Steffen**, assistant professor, published "Evaluation of a Subcutaneously Implanted Chamber for Antibody Production in Rabbits" in *Laboratory Animal Science* with Drs. D.J. Clemons, C. Besch-Williford, Lela K. Riley and D.H. Moore.

**Dr. Steven L. Stockham**, associate professor, was nominated by the SCAVMA, College of Veterinary Medicine, University of Missouri for the National Veterinary Medical Teaching Excellence Award in Clinical Sciences which was sponsored by the SCAVMA. He received the 1992 MSD AGVET Award for Creativity in Teaching for the College of Veterinary Medicine (CVM), Univer-

sity of Missouri; sponsored by Merck, Sharp, & Dohme company. He also received the Golden Aesculapius Teaching Award in 1992, from the second year veterinary class. His poster presentation, "Problem-based, student-centered learning in an elective clinical pathology course received three honors at the 3rd Annual Teaching Techniques Day, CVM, March 19, 1992: SCAVMA Award for best in category, CVM first place award for best in category and tied for the CVM Grand Award for best in category. He published "Analysis of Serum Protein Concentrations After Severe Thermal Injury in a Dog" in *Veterinary Clinical Pathology* with Drs. M.R. Kern and J.R. Coates.

**Dr. Joseph E. Wagner**, curators professor and chairman, wrote "Institutional Animal Care and Use Committee Guidebook" with other authors. The guidebook was published by the Council of Applied Research Ethics National Association and the National Institutes of Health Office for Protection from Research Risks.

## The Fifties

**Billy G. Wright**, DVM '58, retired in 1979 and lives in Naranja, Fla.

## The Sixties

**Donn Irving Blevins**, DVM '64, is writing fiction which has been published including 31 stories and two novellas; and has edited an anthology. Prizes for his work include second place for the Raymond Carver Award in California in 1986, second place for the Hugh Luke Award in Alabama in 1991 and second place for the Robert Gross Memorial Award in Kansas. He lives in Stanley, Ks.

## The Seventies

**William L. Jones**, DVM '72, is retiring and moving to Florida to live on the beach in 1993. He lives in Fort Smith, Ark.

**Jim Cornelius**, DVM '75, as a reservist in the Arkansas Air National Guard is Chief of Military Public Health at the US Air Force at Little Rock, Ark. He was promoted to lieutenant colonel in 1990 and was activated to Travis Air Force base in California during Desert Storm.

**Charles A. Martin**, DVM '77, received his MS degree in production management from Michigan State University, College of Veterinary Medicine, Department of Large Animal Clinical Sciences in May 1992. He lives in Columbia, Mo.

**David T. Allard**, DVM '79, has joined the staff of the Pahle Small Animal Clinic Inc., in West Allis, Wis. Before joining the Pahle Small Animal Clinic, Allard was associated with a small animal clinic in the Milwaukee area from 1990 to 1992. He lives in Oshgosh, Wis.

**Donna Walton Angarano**, DVM '79, was promoted to professor at the College of Veterinary Medicine, Auburn Ala.

University in September 1992. She is the recipient of the 1992 Outstanding Woman Veterinarian of the Year award presented in Boston in August 1992 at the annual meeting of the Association for Women Veterinarians.

## The Eighties

**William Stehnach Jr.**, DVM '81, has opened his own veterinary hospital in Olivette, Mo., a suburb of St. Louis, in March 1992. The hospital is called "My Best Friend Veterinary Center". He lives in St. Louis, Mo.

**Mark J. Lux**, DVM '82, opened Mackenzie Pointe Animal Hospital in September 1992. He also announces the birth of his third and fourth children, twins, Bradley Thomas and Brett Joseph born March 11, 1992. They live in St. Louis, Mo.

**Tom Del Pico**, DVM '83, announces the opening of his new facility with expanded services in Smithville, Mo. He lives in Smithville as well.

**Michael J. Joyner**, DVM '84, was elected as Texas Veterinary Medical Association district director for the North Central District and is also on the board of directors. He has taken 150 credit hours of continuing education courses from the Texas Academy of Veterinary Practice over the past three years. He lives in Killeen, Texas.

**Kurt Krusekopf**, DVM '84, started graduate training at the University of Georgia, with the Food Inspection Service in September 1992. He lives in Athens, Ga.

**Gene Grellner**, DVM '85, and his wife, Janis, a veterinary technician at the Equine Center from 1984 to 1990, announce the birth of their first child, Garrett Thomas, on March 26, 1992. They live in Bonnots Mill, Mo.

**Victoria Knight**, DVM '86, was installed at the president of the Greater St. Louis Veterinary Medical Association in May 1992. She practices at Bal Coeur Veterinary Clinic in Creve Coeur, Mo., and lives in Ballwin, Mo.

**Robin M. Smith**, DVM '86, announces the completion of a 3000 square foot addition to her hospital. The addition doubles the size of her facility. She lives in Columbia, Mo.

## Alumnus becomes president-elect of American Veterinary Society of Animal Behavior

**Dr. Wayne Hunthausen**, owner/director of Westwood animal Hospital and Animal Behavior Consultations in Westwood,



Dr. Wayne Hunthausen

Kan. has been appointed president-elect of the American Veterinary Society of Animal Behavior.

He has been a pet behavior therapist since 1982, working with pet owners to solve their pets' behavior problems. Hunt-

hausen received his doctorate in veterinary medicine from the University of Missouri-Columbia in 1979.

He is an internationally known speaker and author on companion animal behavior. He appears on WDAF TV-4 as the Midday News Veterinarian, and hosts "Animal House" on KNHN radio in Kansas City, Mo.



# Jefferson Club

Mr. and Mrs. Peter Koukola  
Columbia, Mo.

For more information on how you can join the Jefferson Club and invest in Mizzou's College of Veterinary Medicine, write Michael Tarry, Director of Development, W203 Veterinary Medicine, Columbia, Mo. 65211, or call (314) 882-3768.

*The College of Veterinary Medicine  
University of Missouri-Columbia  
invites you to the dedication  
of the new veterinary teaching hospital,  
**Glydesdale Hall,**  
at 10 a.m. Saturday, April 3, 1993.  
That evening please join us for the  
**Gentle Doctor Benefit**  
at the Hearn Field House.  
Doors open at 4 p.m. and dinner buffet  
is served at 5:30 p.m.*





## MU's Michelangelo,

Dr. Gheorghe M. Constantinescu, will create a basrelief sculpture for Clydesdale Hall. The remarkable story of the artist and scientist, his work and his flight to freedom is on page 15.

# Veterinary

medical review

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W203 Veterinary Medicine Building  
College of Veterinary Medicine  
University of Missouri—Columbia  
Columbia, MO 65211

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Nomination form for

# Alumnus of the Year

College of Veterinary Medicine - University of Missouri-Columbia

The Alumnus of the Year is selected and presented by the College of Veterinary Medicine Alumni Association in recognition of outstanding professional and personal achievements and contributions to the enhancement of the veterinary profession.

Please use this coupon to nominate a graduate who has made outstanding contributions both within the profession of veterinary medicine and beyond, through community, state or national activities.

**KEEP THIS OUTSTANDING TRADITION ALIVE. SEND YOUR NOMINATION TODAY.**

**My nominee is:**

Dr. \_\_\_\_\_

**Name of person who can supply information on this nomination:** \_\_\_\_\_

**Address of this person:** \_\_\_\_\_

**My name and address:** \_\_\_\_\_

**My telephone number:** \_\_\_\_\_

Please help the magazine staff keep your friends informed. Send us a Class Note. Fill in this coupon and drop it in the mail. **Alumni want news about other alumni.**

## What's new with you?

Name \_\_\_\_\_

Address \_\_\_\_\_

Date of Birth \_\_\_\_\_ Degrees and dates \_\_\_\_\_

Day Phone \_\_\_\_\_ Evening Phone \_\_\_\_\_

Check those that apply:

☐ New job ☐ Award ☐ Achievement ☐ Promotion

☐ Wedding ☐ Birth ☐ Transfer ☐ Book

☐ Prizes ☐ Honorary ☐ Retirement ☐ Other

Details \_\_\_\_\_

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\_\_\_\_\_

become a reality. Formal dedication of Clydesdale Hall is \_\_\_\_\_ years of experience at Missouri State

PLACE  
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**Dr. K.H. Niemeyer**  
**203 Veterinary Medicine Building**  
**Columbia, MO 65211**

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**Veterinary Medical Review**  
**Editor**  
**W203 Veterinary Medicine Building**  
**Columbia, MO 65211**

Veterinary Diagnostic Laboratory and Teaching Hospital

# Telephone List

*(Specialty/Special Interest listed under name)*

## **Diagnostic Laboratory** .....882-6811

Dr. Keith Bailey, resident  
Pathology  
Dr. Alex J. Bermudez, assistant professor  
Avian diseases  
Dr. G. Daniel Boon, associate professor ...882-7821  
Clinical pathology  
Dr. William Fales, professor  
Bacteriology  
Dr. Harvey Gazer, professor and director  
Dr. Gal C. Johnson, assistant professor  
Pathology  
Dr. Joe D. Kendall, resident  
Toxicology  
Dr. John M. Kreeger, assistant professor  
Pathology  
Dr. Carol W. Maddox, assistant professor  
Bacteriology  
Dr. Margaret A. Miller, associate professor  
Pathology  
Dr. Lanny W. Pace, assistant professor  
Pathology  
Dr. Louis L. Pittman, resident  
Pathology  
Audrey Rottinghaus, instructor  
Virology, serology  
Dr. George E. Rottinghaus, associate professor  
Toxicology  
Dr. Robert F. Solorzano, professor  
Research  
Dr. Susan Turnquist-Kreeger, resident  
Pathology  
Dr. James R. Turk, associate professor  
Pathology

## **Equine Center** .....882-7821

Dr. Philip Johnson, assistant professor  
Equine medicine  
Dr. Kevin Keegan, assistant professor  
Equine surgery  
Dr. Nat T. Messer, associate professor and director  
Dr. David A. Wilson, assistant professor  
Equine surgery  
Dr. Cynthia Campbell-Beggs, resident  
Equine medicine

## **Food Animal Medicine and Surgery** .....882-7821

Dr. Ross Cowart, associate professor  
Swine medicine, herd health  
Dr. Robert B. Miller, associate professor  
Infectious diseases, beef cow-calf, herd health  
Dr. Laurie Mills Wallace, associate professor  
Medicine

## **Medical Services** .....882-7821

### **Anesthesiology:**

Dr. Keith R. Branson, assistant professor  
Anesthesiology  
Dr. Marjorie E. Gross, assistant professor  
Anesthesiology

### ***Radiology:***

- Dr. Everett Aronson, associate professor  
Radiology  
Dr. Louis A. Corwin, Jr., professor  
Radiation therapy, nuclear medicine  
Dr. Jimmy Lattimer, associate professor  
Radiation therapy, ultrasonography, nuclear  
medicine  
Dr. Ann Reed, resident  
Radiology

### ***Neurology:***

- Dr. Dennis O'Brien, associate professor  
Neurology  
Dr. Shirley Shelton, instructor  
Neurology

### ***Ophthalmology:***

- Dr. Linda Collier, associate professor  
Ophthalmology  
Dr. B. Keith Collins, assistant professor  
Ophthalmology  
Dr. Cecil P. Moore, associate professor  
Ophthalmology  
Dr. Lana L. Linton, resident  
Ophthalmology

### ***Small Animal Medicine:***

- Dr. C. B. Chastain, professor  
Dermatology, endocrinology, infectious diseases  
Dr. Allen W. Hahn, professor  
Cardiology  
Dr. Brent D. Jones, associate professor  
Gastroenterology, respiratory medicine, endoscopy  
Dr. Dudley McCaw, associate professor  
Cardiology, oncology  
Dr. Steven Covert, resident  
Small animal medicine  
Dr. Elizabeth Settles, resident  
Small animal medicine  
Dr. Mollyann Holland, resident  
Small animal medicine

### ***Small Animal Surgery:***

- Dr. Fred Anthony Mann, assistant professor  
Soft tissue/trauma  
Dr. John T. Payne, assistant professor  
Orthopedic  
Dr. Eric Pope, associate professor  
Soft tissue/reconstructive dentistry  
Dr. James Tomlinson, associate professor  
Orthopedic  
Dr. Mark Anderson, resident  
Small animal surgery  
Dr. Brian T. Huss, resident  
Small animal surgery  
Dr. Bradford Dixon, resident  
Small animal surgery

### ***Theriogenology:***

- Dr. William F. Braun, associate professor  
Small ruminant medicine  
Dr. V. K. Ganjam, professor  
Endocrinology  
Dr. Clif N. Murphy, clinical associate professor  
Bovine and equine embryo transfer,  
cryopreservation of embryos  
Dr. Robert S. Youngquist, professor  
Theriogenology  
Dr. Manoel Tamassia, resident  
Theriogenology  
Dr. D. Neal Brackett, Resident  
Theriogenology  
Dr. Don Peter, resident  
Theriogenology

# Patient Referral Procedures

The Veterinary Teaching Hospital welcomes referral cases from practicing veterinarians. The Hospital can provide second opinions, expertise in performing difficult surgical or diagnostic procedures and specialized equipment that is not readily available. Referrals not only help practitioners solve problems, but they also provide valuable experience for professional students, interns, resident veterinarians and faculty.

Referring veterinarians should telephone a clinician to discuss a case and its probable arrival time; a preliminary estimate of potential costs should be discussed during this initial contact. An estimate is especially important if the client has questions about the expense of treatment and hospitalization. Under no circumstances should an estimated fee be quoted to a client without prior consultation with a clinician. In addition to their primary commitment to patient care, Teaching hospital clinicians have responsibilities for didactic and laboratory teaching, continuing education, research projects, and university service; thus, referring practitioners may not always be able to contact a clinician with whom they are acquainted.

A patient referral form (see next page) should accompany the patient and its owner. A map is provided on the back of the form to assist the client in finding the Hospital. Clydesdale Hall, the College's new Teaching Hospital is scheduled to open in late 1992 and is located immediately south of the Diagnostic Laboratory on East Campus Drive. On the case history section of the form, the referring veterinarian should indicate the duration of the present disorder, clinical signs, results of any laboratory tests, previous treatment, and pertinent nutritional management of the patient. A summary of the patient's medical record is often more helpful than a complete copy of the record which may be difficult to interpret by someone who is unfamiliar with the abbreviations and notations used by an individual practice. Suggestions and comments that may assist in the management of the case are always welcome.

The referral form becomes a part of the patient's medical record. Transfer of information by telephone is helpful but verbal material does not become part of the medical record.

Referring veterinarians are admonished to be cautious in suggesting that a specific diagnostic or therapeutic procedure will be performed. Sometimes clients may be confused or disappointed if Teaching Hospital clinicians determine that a different procedure or treatment is indicated.

Once a case has been accepted, complete responsibility for management of that case shifts from the referring veterinarian to the Teaching Hospital clinician. A postcard will be mailed within 24 hours of admission indicating the clinician in charge of the case. Daily care of referred cases may be rendered by interns or first- or second-year resident veterinarians as an indispensable

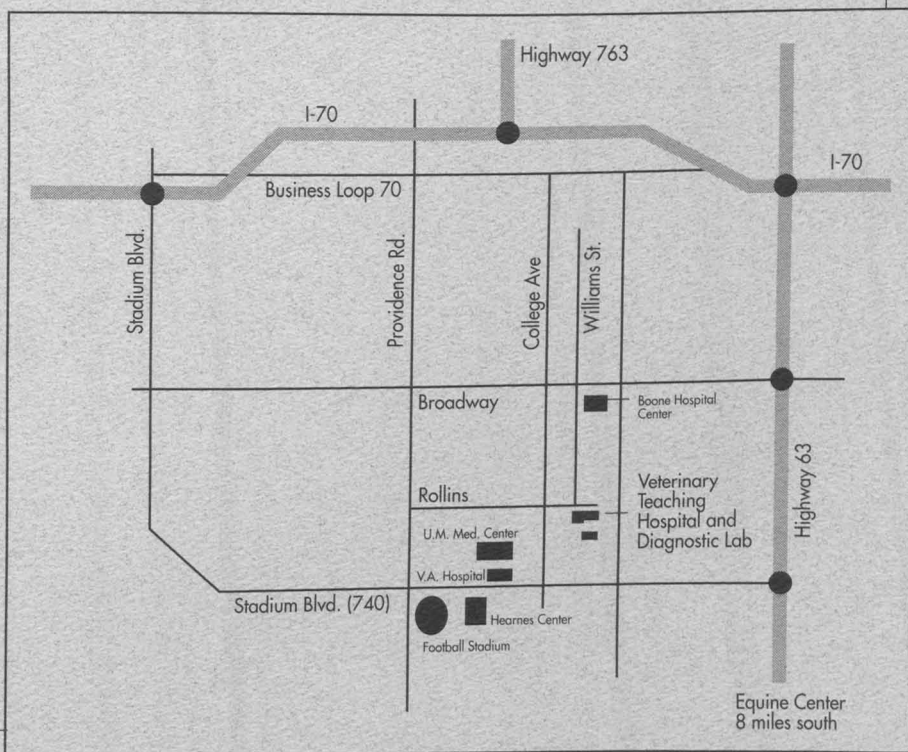
part of their training program; however, a third-year resident or faculty clinician will be responsible for each referred case.

Depending upon the anticipated length of stay, the referring veterinarian may be telephoned by the clinician during the patient's hospitalization. If the referring veterinarian wishes to insure being called, please make a request on the Patient Referral Form. Clients are usually contacted daily by veterinary students. Within a working day of the patient's dismissal from the Small Animal Hospital, a copy of the discharge summary, prepared by the attending student and reviewed by the clinician, will be forwarded to the referring veterinarian. Every attempt will be made to forward a letter and two Patient Referral Forms for subsequent use within five working days. If the patient should die and subsequently be necropsied, response time may be extended pending completion of laboratory tests associated with the post mortem examination. Should problems or questions arise with any aspect of a case, the senior clinician or department chairman should be contacted.

The Veterinary Teaching Hospital exists to teach professional students, interns, and resident veterinarians, and to serve the animal-owning public and referring veterinarians. The faculty of the College and the Department of Veterinary Medicine and Surgery appreciate every opportunity to join with referring veterinarians in providing diagnostic, medical, and surgical care.

*R. S. Youngquist*

R. S. Youngquist D.V.M.  
Professor and Interim Chairman  
Veterinary Medicine and Surgery



## PATIENT REFERRAL



UNIVERSITY OF MISSOURI-COLUMBIA

Veterinary Teaching Hospital  
Rollins & Williams  
Columbia, Mo. 65211

☐ Equine ☐ Sm.An.Med.

Date: \_\_\_\_\_ Appointment Time: \_\_\_\_\_ ☐ Food An. ☐ Sm.An.Sur. ☐ Therio.

This will introduce my client: \_\_\_\_\_  
and patient named: \_\_\_\_\_

Referred by Dr. \_\_\_\_\_

Street address: \_\_\_\_\_

City: \_\_\_\_\_

Case History: (including duration of illness, symptoms observed, laboratory results, radiographic results (include radiographs), surgical/medical treatment received, immunizations, diet, etc.)

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Suggestions and comments by Referring Veterinarian:

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Please call (314) 882-7821 for an appointment.

24-hour emergency service: (314) 882-4589

**THIS FORM IS TO BE PRESENTED BY THE CLIENT UPON ARRIVAL**

# Please gives us your opinion

of the **Veterinary Medical Review** by answering the questions below and dropping this card in mail by February 1, 1993. The results of this survey will be published in the next edition.

*How often do you read...*

The dean's column?

☐ Frequently ☐ Occasionally ☐ Never

Articles about current faculty and departmental news?

☐ Frequently ☐ Occasionally ☐ Never

Featured alumni article?

☐ Frequently ☐ Occasionally ☐ Never

Article about current students?

☐ Frequently ☐ Occasionally ☐ Never

"Around the College" section?

☐ Frequently ☐ Occasionally ☐ Never

"Alumni News" section?

☐ Frequently ☐ Occasionally ☐ Never

What other articles would interest you?

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What one thing would you change about this publication?

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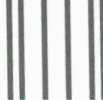
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TEAR OUT AND MAIL

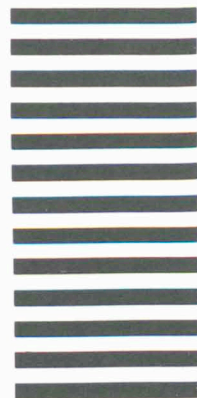
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