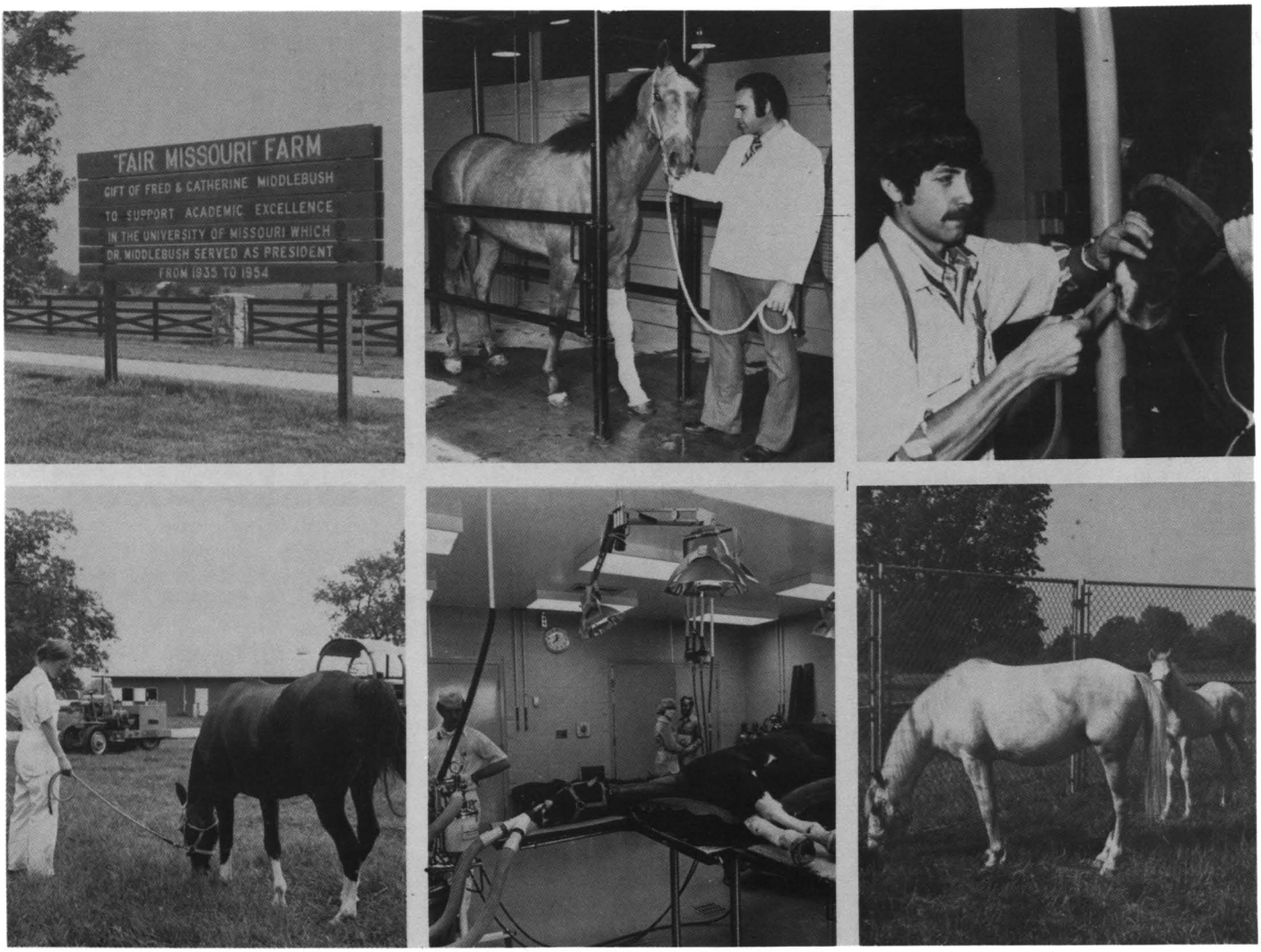
Veterinary Medical Review

College of Veterinary Medicine and UMC Extension Division



University of Missouri-Columbia

July, 1976, No. 95

Equine Center integrates research, teaching and service. See story on page 3.

Around the College. . .

OFA moves in at Equine Center

A new building to house the Orthopedic Foundation for Animals (OFA) has been completed at Middlebush Farm. Dr. James S. Larsen, Director of OFA, and his staff moved in during May from their old location on Virginia Street.

Affiliated with the College, the OFA provides a radiographic referral service in cooperation with the American College of Veterinary Radiology. The nationwide panel of veterinary radiologists evaluates pelvic radiographs of purebred dogs with respect to canine hip dysplasia. The new building houses the OFA collection of pelvic radiographs which contains films of over 120 different breeds of dogs and is the largest all-breed film collection of its kind.

The new building also provides additional office space for Equine Center faculty.

The John M. Olin Foundation, St. Louis, contributed $118,290 and OFA $29,345 for construction of the new building.

Nominations desired

Nominations are desired for the Alumni Award of Merit which is sponsored by the University of Missouri-Columbia Veterinary Medical Alumni Association in memory of Mr. Lee Rolf.

Nominations should be sent to Dr. Nelson Rolf, Box 745, Warsaw, MO 65355. It will be most difficult to give adequate consideration to those nominations received after September 1, as the award will be presented at the 52nd Annual Conference for Veterinarians to be held October 10-11, 1976.

Last year's recipient of this award was Dr. Taylor Woods, Missouri State Veterinarian.

CE year ends successfully

Continuing education programs for this year drew to a triumphant close the first of May with a surgical procedures seminar that attracted over 50 veterinarians to the College. Drs. M.J. Bojrab, K.H. Niemeyer, R.M. Bright and G.C. Lantz, all of the Department of Veterinary Medicine and Surgery, presented the seminar.

College faculty presented three additional workshops in April. Dr. A.W. Hahn, professor of veterinary medicine and surgery, and Dr. Richard H. Martin, professor of medicine, presented a workshop on interpretation of canine electrocardiograms April 23-24 which ten veterinarians attended.

Twenty-one veterinarians participated in a small animal gastroenterology workshop April 28 in which lectures were given by Dr. Brent Jones, assistant professor of veterinary medicine and surgery.

Drs. J.M. Carrillo, Ed Breitschwerdt and R.L. Burk, veterinary medicine and surgery, presented a seminar on canine and feline urology, attended by 20 veterinarians.

CE in the future

The Continuing Education and Extension Unit of the College of Veterinary Medicine is in a state of transition. Thanks to the foundation laid several years ago the Unit is showing tangible results.

At least 744 registrants were reached this past year through the 16 in-depth workshops, Annual Conference and other programs produced by the Unit.

Next year the Unit's goal is to reach not only those who can leave their practice to attend conferences, but also those who find this difficult. To this end the Unit plans to be of greater assistance in the use and production of audio-visual materials for group or individual use.

Dr. K. L. Niemeyer

College names assistant dean

Dr. Kenneth H. Niemeyer, associate professor of veterinary medicine and surgery, has been appointed Assistant Dean for Student and Alumni Affairs at the College of Veterinary Medicine, effective June 1, 1976.

Dr. Niemeyer has been with the College since 1955. He was Director of the Small Animal Clinic from 1964-1968 and Surgery Block Leader from 1971-74.

Dr. Niemeyer earned B.S., D.V.M. and M.S. degrees from the University of Missouri. He is a member of American Animal Hospital Assoc., American Veterinary Medical Assoc., Missouri Veterinary Medical Assoc., Central Veterinary Medical Assoc., Assoc. of Veterinary Clinicians and Assoc. of Veterinary Medical Educators.

Dr. Niemeyer replaced Dr. Leonard W. Dewhirst, who resigned in January to accept a position at the University of Arizona.

Humane society elects Dr. Odend'hal president

Dr. Steward Odend'hal, research associate in veterinary anatomy-physiology at the College of Veterinary Medicine, was elected president of the Central Missouri Humane Society June 2.

Missouri Division of Health offers assistance to veterinarians during encephalitis season

While the first of the mosquito-borne encephalitis viruses (also called arthropod-borne or arbovirus) were not isolated until 1930, there is evidence that these agents caused widespread illness in horses for many years prior to the virus identification.

Since the early recognition of a viral etiology, many viruses causing encephalitis in both humans and animals have been isolated. There are only a few, however, that are considered of importance in the state of Missouri. The mosquito-borne virus diseases that occur most frequently in Missouri are: 1) St. Louis encephalitis (SLE), 2) Western equine encephalomyelitis (WEE), 3) California encephalitis (CE), and 4) on rare occasions, Eastern equine encephalomyelitis (EEE). An additional member of this group, Venezuelan equine encephalitis (VEE) occurred in South Texas in 1971, but vigorous action has eliminated the epidemic strains from this country. Since 1971, no animal or human cases of VEE have occurred in the United States.

All of the diseases listed above are zoonotic. Two of them, EEE and WEE, routinely occur in the United States in both horses and man. A bivalent vaccine is available for protecting horses from WEE and EEE but no encephalitis vaccines are available for humans.

St. Louis encephalitis is primarily a disease of birds and man. Horses and other animals may be infected but do not develop clinical illness.

California encephalitis virus is primarily maintained in nature by a cycle involving small woodland rodents and mosquitoes and does not cause clinical illness in domestic animals. Almost all cases of human CE occur in children and young adults before age 20. Activity of this virus has been recognized in Missouri only since 1973.

When they occur, most encephalitis cases are reported from mid-July to mid-October. This period coincides with the period of highest incidence of vector mosquitoes. The viral agents are only transmitted through the bite of infected mosquitoes which have become infected by taking a blood meal from a viremic reservoir host and thereafter remain infective for life, which may be as long as six months.

Vectors

The mosquitoes primarily involved in carrying encephalitis virus (SLE and WEE) in Missouri are the *Culex* types. In general, they prefer to breed in polluted, stagnant water such as sewage drain pipes, sewage lagoons and stagnant pools along intermittent streams and drainage ditches. They will also breed in artificial containers such as trash cans, old tires, fish ponds, etc., around human premises. While other mosquitoes may bite during the daytime, the *Culex* type prefer to bite from one hour before sunset to an hour and a half after sunset.

Eastern equine encephalomyelitis virus is transmitted among birds by a common, swamp-breeding mosquito, *Culiseta melanura*. Apparently, this particular species of mosquito is found only infrequently in this state which may account for the very low frequency of eastern equine encephalomyelitis virus activity in Missouri. California encephalitis is transmitted by a "tree-hole" breeding mosquito, *Aedes triseriatus*.

Surveillance

In general, western equine encephalomyelitis is found in the states west of the Mississippi River. St. Louis encephalitis occurs in the same area, but may also extend eastward through the midwestern states. Eastern equine encephalomyelitis generally is found in the eastern half of the country especially along the Atlantic and Gulf Coasts. Most California encephalitis cases occur in the states immediately adjoining the Great Lakes.

The mosquito-borne encephalitides are under close surveillance during 1976 with extra efforts being made nationwide to detect early virus activity. While public health officials are concerned every year, the concern during 1976 is heightened by the fact that 1975 was the worst year on record for human arbovirus infections.

Nationwide, there were 1,367 confirmed cases of St. Louis encephalitis with 95 deaths; 120 California encephalitis cases confirmed with one death; and 119 Western equine encephalomyelitis cases confirmed in humans with four deaths. In addition, equine illness was widespread throughout the country during the summer and fall of 1975. Unfortunately, not enough is known about the complex over-wintering mechanism of the viruses or all of the factors affecting the life cycle to be able to predict the amount of virus activity to be anticipated during 1976.

During 1975 Missouri was fortunate to escape the large epidemics experienced by some of our neighboring states. Missouri recorded 21 confirmed human cases of SLE and one confirmed case of human WEE during 1975. In addition, 17 other humans exhibited some serologic evidence of SLE infection.

During 1975 there were 18 confirmed cases of WEE in horses in the state (and one human case as stated earlier). The equine cases were concentrated in the northwestern portion of the state while the human case was located in the northeastern part of Missouri. In addition to the confirmed cases, there were rumors of widespread equine illness and deaths throughout Missouri.

Prevention

The equine is a dead-end host for the viral encephalitides since they do not develop a sufficient viremic titer to infect mosquitoes. However, horses are important because they are exposed to many more mosquitoes than man; and, therefore, are apt to develop clinical illness before the population of infected vectors becomes high enough to affect the human community.

(continued next page)

Encephalitis cont.

Horses, then, along with other techniques such as trapping mosquitoes for virus isolation, maintaining sentinel flocks of birds, etc., serve to give valuable early warning of potential human problems. During 1976, the Missouri Division of Health will again accept blood samples from horses suspected of having a viral encephalitis for serological testing. Not only will this help the practicing veterinarian in his diagnosis, but it will serve the public by giving early warning of activity by the two viruses, WEE and EEE, which affect horses.

In order to be meaningful, two blood samples must be submitted for each patient. The first, an acute sample, should be obtained as early in the course of disease as possible and the second sample (convalescent) a week to 10 days after the acute. Specimens submitted to the laboratory should be accompanied by detailed information regarding the clinical aspects of the case and especially the date of onset of illness to assist in interpretation of the laboratory tests. It is recommended that only serum be submitted and that the volume be not less than 5 ml.

In the event the horse dies or cannot survive sufficiently long to obtain a convalescent serum sample, single samples may be run by the Division of Health Laboratory, but only upon special request when the circumstances precluding a convalescent sample are explained. Frequently, tests performed on single serum samples are impossible to interpret; one must demonstrate a rise in antibody titer in order to confirm the presence of a specific disease.

In addition, for those horses which cannot survive, it may be possible to attempt virus isolation from the brain. This is only feasible when the brain is removed promptly after the horse's death and shipped directly to the laboratory in an acceptable manner. Please call the Missouri Division of Health Laboratory in Jefferson City at 314 751-3334 for additional information on proper handling of brain specimens for virus isolation.

Paired sera may be sent to: Missouri Division of Health Laboratory, 6th Floor, Broadway State Office Building, Jefferson City, MO 65101. —William Raithel, D.V.M., Missouri Division of Health.

In treatment of some laminitis cases the sole of the hoof is protected by a plaster cast while weight is distributed over the frog and quarters. The first photo shows where the palmar nerves are anesthetized over the abaxial surfaces of the sesmoid bones. The next two photos show steps in the application of a plaster cast to the bearing surface of the foot. It is important to allow the horse to stand down on the hoof before the cast material sets up.

Tips from the Equine Center

Medical management of acute laminitis

For purposes of organizing treatment regimes, laminitis may be categorized as acute, refractory acute and chronic. Chronic laminitis may be subdivided into chronic remissive and refractory exacerbative laminitis.

Acute laminitis

Predisposition and etiology — while acute laminitis may occur in any horse because of grain overload, incidence is higher in well-finished and obese horses. There is considerable evidence that lactic acidosis due to dietary starch is the major cause, whether the horse is on a grain ration or lush, rapidly growing grass.

Of particular interest is the consistent observation that horses exhibiting hypothyroid tendencies develop laminitis on grass. Also therapy with thyroid extract has been effective in the majority of these horses.

Cardiovascular, hemodynamic and histopathologic data all suggest that the basic triggering mechanism of acute laminitis is a compartmental fluid shift from the intravascular compartment into the interstitial compartment and into the gut lumen. It would seem that the most common cause of this phenomenon is lactic acid (probably by decreasing capillary integrity). Other potential causes of laminitis are bruised soles, bacterial toxins associated with subsolar abscesses and thrush, and venous constriction due to histamine (since histamine causes venous constriction in the equine digit).

Therapy of acute laminitis

The cause of acute laminitis is usually alimentary in origin. Therefore it is routinely indicated to administer an oral laxative such as mineral oil.

Increased glucocorticoid output apparently occurs with Obel grade 3 laminitis, at least in the starch model. Because of this, as well as documented loss of plasma water, sodium and potassium, glucocorticoid steroid therapy is, in our opinion, contraindicated. However, the need for non-steroidal anti-inflammatory therapy (phenylbutazone, meclafenamic acid and Palosein) is apparent as evidenced by progressive edema and thrombus formation observed in histopathologic examination.

Because of the compartmental shift of plasma water into the interstitium, use of a furosemide diuretic is logical because 1) reduction of edema may be accomplished and 2) the related drop in Na and plasma water constitutes a potent stimulus of aldosterone. However, it should be emphasized that injudicious use of such drugs may prove disastrous by causing excessive and prolonged hypovolemia. Only one dose should be given and these drugs should not be used at all in the face of frank hemoconcentration.

Anesthesia of the palmar nerves has persisted as an effective adjunct to early therapy of acute laminitis along with exercise on a soft surface. This allows compression of the digital cushion and decreases blood pressure. Also, anesthesia of the palmar nerves makes application of plaster cast material (see photos above) more feasible.

However, this mode of therapy is not without hazard. Palmar nerve anesthesia and forced exercise are contraindicated in instances where degenerative changes have already occurred.

Larsson, Obel and Aberg demonstrated the role of methionine and cysteine in keratinization of hoof. While the observable effects of methionine are not remarkable it is a logical adjunct to therapy and is recommended at a dose of 5 gms per day orally.

Some horses are febrile and/or toxic during onset and broad spectrum antibiotics should be used when indicated. Antibiotics which are notorious for causing acute colitis, such as the tetracyclines, tylosine and lincomycin should be avoided.

In terms of time, acute laminitis is an urgent emergency. Serial histopathology has shown rapid degenerative changes following the onset of clinical signs.

Equine Center reaches goals

When the Equine Center of the College of Veterinary Medicine was conceived in 1973, the goal of integrating research, teaching and service was set. Today through the efforts of College faculty and staff that goal is a reality.

Dr. James Coffman, professor and Director of the Equine Center, Dr. L. G. Tritschler, associate professor and academic block leader, Dr. Jerry Johnson, associate professor and surgeon, plus Dr. Harold Garner, professor and research coordinator, comprise the full time assigned faculty at the Center.

The first Equine Medicine and Surgery Block at the Center began in September, 1973, expanding on portions of the Large Animal Medicine and Surgery Block and the Livestock Practice Block. Since that time, 178 students of veterinary medicine have passed through the eight-week course of intensive equine study and two practicing veterinarians have participated through the College's Mid-Career Program.

By combining clinical operation with teaching the center treats approximately 1900 horses a year.

In research areas over $118,000 has been awarded for study of equine diseases since the Center began.

Research in laminitis is being funded by grants from the American Quarterhorse Association (over $56,000 to date), the Morris Animal Foundation ($5,000) and Hoescht, Inc., ($27,000).

The principal investigator of the laminitis research, Dr. Garner, also heads up a project funded by Pitman-Moore ($20,000) on anesthetic comparisons.

The Grayson Foundation has contributed nearly $10,000 for the research efforts of Dr. Johnson, a diplomate of the American College of Veterinary Surgeons, involving study of epistaxis — particularly in race horses.

The Schering Company is working with Dr. Tritschler in evaluating abdominal pain in horses on a field study basis.

At the Equine Center, located on the 288-acre Middlebush farm, faculty of the College have not only succeeded in combining problem-oriented teaching and research but serve the rest of the College by alleviating crowding in large animal facilities at the Veterinary Teaching Hospital on campus.

Prognosis should be discussed at the first visit. While the outcome of treatment cannot be predicted, adverse factors should be pointed out. Probably the most common reason for poor response to therapy is time lag prior to treatment. Secondly, some cases are so severe and rapid in development that irreversible changes have already occurred, even if treatment was accomplished promptly. If serum or blood is present at the coronary band, or if the laminitis developed subsequent to intensive therapy of shock involving massive doses of glucocorticoids and $NaHCO_3$, results will be uniformly bad. Assuming prompt, appropriate therapy has been achieved, by far the most common cause of poor results is too large a horse on too small a foot. — Equine Center faculty

Self-assessment questions

1. Causation of the majority of cases of acute laminitis is
   a) starch or histamine
   b) histamine
   c) protein
   d) mold

2. Obese horses developing chronic laminitis on grass once removed from grass are best treated with
   a) corticosteroids
   b) shoeing with elevated heels
   c) thyroid extract and hoof care
   d) antihistamine

3. Therapy of acute cases is best based upon
   a) oral laxatives, corticosteroids, antihistamines
   b) oral laxatives, palmar nerve anesthesia, phenylbutazone and furosemide diuresis
   c) corticosteroids
   d) antihistamines and phenylbutazone

4. Depreciated prognosis may be caused by (mark the incorrect answer)
   a) the color of the horse
   b) time lag prior to treatment
   c) size of the horse in relation to size of its feet
   d) rate of onset of degenerative changes

Answers: a, c, b, a

Students honored at banquet

Several veterinary students received awards at the annual Honors Convocation Banquet sponsored by the College of Veterinary Medicine and the Upjohn Company and held May 8.

Basic science departmental awards went to David T. Allard (VMI), anatomy; Karen L. Campbell (VMI), physiology; Deane A. Novak (VMII), microbiology; Lewis J. Moore (VMII), pathology; and Kimberlee A. Gonterman (VMI), Kalish award in biochemistry.

Clinic proficiency awards were presented as follows: Dr. Edgar Ebert Memorial, large animal to Ronald B. Blackwell, small animal to Larry A. Nafe; English for overall proficiency in small and large animal medicine and surgery, Don N. McCormick; Harlan E. Jensen Ophthalmology, Isaac McKay III; American Animal Hospital, Larry A. Nafe; Veterinary Medicine Journal for most improvement in large animal medicine to George K. Ingram, in small animal medicine to Kenny L. Brown; Columbia Kennel Club for small animal surgical proficiency to William C. Tuthill.

Scholastic awards were presented to: Lewis J. Moore (VMII) and John C. Lewis (VMII), Phi Zeta; Ray Visco (VMIII) and Donnie E. Slone, Jr., Merck Awards; Gary Wilson (VMIII), Diamond Student Research Award; Steve Nickell (VMIII), the Pfizer Award which is a $400 scholarship; Larry A. Nafe, Gamma Sigma Delta for the highest grade point average; Kathy Ra (VMI) and Roger Borgemeyer (VMI), Curator scholarships awarded last fall; Ronald Franklin (VMI), Alpo $4000 scholarship.

The following service awards were given: West Central VMA Leadership award to Lonnie D. Shepard (VMI); Women's Auxiliary of AVMA award to Don N. McCormick; Missouri Veterinarian award to Philip J. Shanker (VMIII), for his work on publication of the annual yearbook.

Dr. Buening on leave

Dr. Gerald Buening, associate professor of veterinary microbiology, has been awarded a one-year sabbatical leave to study at Washington State University in Pullman.

Dr. Buening will be doing research in immunologic aspects of equine medicine and participating in the teaching program there. He will teach immunology to veterinary students and graduate level immunopathology.

Dr. Buening earned D.V.M. and Ph.D. degrees from Purdue University and an M.S. from Iowa State. He began his sabbatical on July 1.

Pathologists resign

Two faculty in the Department of Veterinary Pathology have recently resigned.

Dr. Robert B. Wilson, professor, who has been with the University since 1973, has accepted the chairmanship of the Department of Pathology and Microbiology at Washington State University in Pullman, Washington.

Dr. William Halliwell, associate professor, is leaving the College for Lovelace Foundation for Medical Education and Research in Albuquerque, NM.

Dr. Breazile named distinguished teacher

Dr. James E. Breazile, professor of veterinary anatomy, received the 1976 Norden Distinguished Teacher Award at the annual College of Veterinary Medicine Honors Convocation Banquet May 8.

Dr. Breazile was selected as the most outstanding teacher of the College by third and fourth-year students, students he taught anatomy to when they were freshmen.

Dr. Breazile came to the University in 1967 from Oklahoma State as an associate professor in the Department of Veterinary Anatomy. He became Department chairman in 1969 and remained in that position for five years.

Presently Dr. Breazile teaches graduate level courses in veterinary physiology, correlative neuroanatomy and works with the small animal clinicians at the Veterinary Teaching Hospital as a consultant. He is conducting research in canine epilepsy and has recently negotiated a contract with the National Institutes of Health to do research with viruses which produce hydrocephalus in primates, including man.

Dr. Breazile earned B.S. and D.V.M. degrees from the University of Missouri and a Ph.D. from the University of Minnesota.

Dr. J. E. Breazile (left) accepted handshake and plaque from Dr. E.A. Corley as he was presented the 1976 Norden Distinguished Teacher Award.

Faculty publish research results

Adldinger, H.K., Thurston, R.J., Solorzano, R.F., and Biellier, H.V.: Herpesvirus — a possible cause of low fertility in male turkeys. Arch. Gesamte Virusforsch., 46 (1974).

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Burke, J.P., Tumbleson, M.E., Burks, M.F., and Hicklin, K.W.: Plasma glucose in miniature swine infused with ethanol and fructose. J. Studies on Alcohol, 37 (1976).

Jenkins, W.L., and Davis, L.E.: A method for the *in vitro* study of drug transfer across ruminal epithelium. J.S. Afr. Vet. Assoc., 46 (1975).

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Wagner, J.E.: A fatal cytauxzoonosis-like disease in cats. J. Am. Vet. Med. Assoc., 168 (1976).

Hooper, D.G., and Hirsh, D.C.: Effect of resistance possessed by certain enteric microorganisms upon orally inoculated Salmonella. Am. J. Vet. Res., 37 (1976).

South, F.E., Luecke, R.H., Zatzman, M.L., and Shanklin, M.D.: Air temperature and direct partitional calorimetry of the California sea lion (*Zalophus californianus.)* Comp. Biochem. Physiol., 54A (1976).

Kane, K.K., Corwin, R.M., and Boever, W.J.: Impaction due to oxyurid infection in a Fiji Island iguana. Vet. Med. Small Anim. Clin., 71 (1976).

Morehouse, L.G.: "Rabies" *in* Diseases of Swine. Iowa State University Press, fourth edition, 1975.

Martin, T.D., and Berrier, H.H.: Detection and diagnosis of arsenic and mercury poisonings via the Reinsch test. Vet. Med. Small Anim. Clin., 71 (1976).

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Berg, J.N., Brown, L.N., Ennis, P.G., and Self, H.L.: Experimentally induced foot rot in feedlot cattle fed rations containing organic iodine (ethylenediamine dihydriodide) and urea. Am. J. Vet. Res., 37 (1976).

Hamdy, A.H., Kleven, S.H., McCune, E.L., Pomeroy, B.S. and Peterson, A.C.: Efficacy of linco-spectin water medication on mycoplasma synoviac airsacculitis in broilers. Avian Dis., 20 (1976).

Tumbleson, M.E., Hutcheson, D.P., and Middleton, C.C.: Serum protein concentrations and enzyme activities, as functions of age and sex, in Sinclair (S-1) miniature swine. Growth, 40 (1976).

Kinden, D.A., and Brown, M.F.: Electron microscopy of vesicular-arbuscular mycorrhizae of yellow poplar. I. Characterization of endophytic structures by scanning electron stereoscopy. Can. J. Microbiol., 21 (1975).

Kinden, D.A., and Brown, M.F.: Electron microscopy of vesicular-arbuscular mycorrhizae of yellow poplar. IV. Host-endophyte interactions during arbuscular deterioration. Can. J. Microbiol., 22 (1976).

Dr. English retires

Faculty, staff, students and clients will miss Dr. James E. English, Jr. who has retired after 22 years with the College of Veterinary Medicine. Dr. English was associate professor of veterinary medicine and surgery.

For years farmers in this area have been greeted by his familiar face, the Clinic ambulatory truck and several students when they call for veterinary service on their farms.

Some of the most memorable experiences Missouri veterinary students have had were visits to central Missouri farms with Dr. English to learn large animal medicine and other, perhaps related, subjects first hand. Certain students remember vividly when Dr. English and the ambulatory truck were washed off the road together at Twin Bridges northwest of Columbia during a spring flood a few years ago. In fact a picture of the event is immortalized in Peristalsis, the student yearbook.

Dr. English is also famous as a square dancer. He and his wife dance regularly in a local square dance club and he doesn't plan for retirement to change this. As he stated, "I was square dancing before I came to Missouri and plan to continue."

Dr. English has been a member of the Board of Directors of the Boone County Fair Association since 1972 and President of the Association in 1975 and 1976. For several years Dr. English donated his time and services as fair veterinarian. He was presented a Certificate of Appreciation in 1975 by the Hickman High School FFA Chapter for the consideration and help he gave the club in arranging their fair booth and judging their speech contest.

Dr. English was in private practice for 11 years before joining the College. He earned his D.V.M. from Colorado State in 1943 and an M.S. from the University of Missouri in 1964.

Faculty, staff and students at the College honored Dr. English at a farewell get together at the Veterinary Teaching Hospital on May 21.

Dr. English prepares for one of his last "Let's roll" ambulatory calls.

Dean Weide elected

Dr. K.D. Weide, Dean of the College of Veterinary Medicine, was elected vice-president of the Intermountain Veterinary Medical Association at a recent meeting in Las Vegas.

The Association is a 1,000-member organization comprised principally of veterinary practitioners. They meet annually in Las Vegas for 3½ days creating the fourth largest veterinary meeting in the country.

Faculty Notes

D.R. Owens, research assistant in veterinary microbiology, presented "The pathogenicity of experimental *Edwardsiella tarda* infection in baby pigs" at the American Society for Microbiology branch meeting in Columbia Apr. 2.

Dr. J.E. Wagner, professor of veterinary pathology (Vet. Med. Diag. Lab.), attended a task-force study group at NIH in Bethesda Apr. 6-8. He also attended the 11th Annual Meeting of the American Assoc. for Laboratory Animal Science in Ames and presented "Staphylococcal scalding skin syndrome (SSSS) in laboratory rats" on Apr. 23.

Dr. V.M. Miller, research assistant in veterinary anatomy-physiology, attended Federation of American Societies of Experimental Biology meeting in Anaheim, CA, and presented "Effect of arousal state and ambient temperature on spinal cord thermosensitivity in the marmot" Apr. 10-19.

Dr. M.E. Tumbleson, associate professor of veterinary anatomy-physiology, presented "Effect of intravenous infusion of ethanol and/or fructose on plasma glucose concentration" at Federation of American Societies for Experimental Biology annual meeting in Anaheim, CA Apr. 11-15. Dr. Tumbleson also presented "The relationship between social dominance and ethanol consumption in Sinclair (S-1) miniature swine" to researchers in Washington, DC May 6-8.

Dr. L.A. Selby, associate professor of veterinary microbiology, presented "A description of the responsibilities of veterinarians as they relate to human health" at the Minnesota School of Public Health in Minneapolis on Apr. 12-14. He returned to the School on May 10-11 for consultation.

Dr. M.J. Bojrab, associate professor of veterinary medicine and surgery, gave a seminar on "Selected soft tissue surgery" to the Ft. Wayne Indiana Veterinary Medical Assoc. Apr. 12-14. Dr. Bojrab also gave a seminar on "GI surgery" at the Kellogg Center in Chicago June 1-3.

Dr. R.B. Wilson, professor of veterinary pathology, attended the Federation of American Societies for Experimental Biology annual meeting in Anaheim, CA and presented "Dimethylhydrazine-induced colon tumors in rats feed beef fat or corn oil with and without wheat bran" Apr. 12-15.

Dr. F.E. South, professor of veterinary anatomy-physiology, presented a seminar at the University of Delaware on "Neuroanal models in temperature regulation" May 23-26. He also attended the Federation of American Societies for Experimental Biology annual meeting in Anaheim, CA Apr. 13-16.

Dr. J.E. Breazile, professor of veterinary anatomy-physiology, presented "Illustrated and annoted nomenclature of the avian central nervous system and autonomic nervous system" at an American Anatomists Assoc. meeting in Louisville, KY Apr. 19-20.

Dr. R.E. Brown, professor of veterinary medicine and surgery, presented "Small animal practice tips" at Southeast Missouri Veterinary Medical Assoc. meeting in Cape Girardeau Apr. 21.

Dr. A.B. Kier, research associate in veterinary pathology, attended the 11th Annual Meeting of the American Assoc. for Laboratory Animal Science in Ames and presented a paper entitled "How to operate a cat house" on Apr. 23.

Dr. C.S. Frisk, acting director of Research Animal Diagnostic and Investigative Laboratory, presented "What is your diagnosis" at the 11th annual meeting of the American Assoc. for Laboratory Animal Science in Ames Apr. 23.

Dr. R.J. Kinkler, research associate in veterinary pathology (Vet. Med. Diag. Lab.), presented "Rearing nude (nu/nu) mice" at the American Assoc. for Laboratory Animal Science meeting in Ames on Apr. 23.

Dr. H.K. Adldinger, associate professor of veterinary microbiology, was invited by the New England Regional Primate Research Center, Harvard Medical School, Boston to discuss his work on Marck's disease. He presented a lecture entitled "Marck's disease — a model of herpesvirus-induced oncogenesis" on Apr. 29.

Dr. L.R. Brown, associate professor of veterinary microbiology (Dalton Research Center), presented two papers at Aerospace and Undersea Medical Society annual meetings in Miami Beach, FL May 10-13. He presented "Inhibition of branched chain and aromatic amino acids by hyperbaric oxygen" and "Oxygen toxicity at the cellular level: Correlations among effects on membrane transport, respiration, bioenergetics and synthesis."

Dr. D.C. Blenden, professor of veterinary microbiology (Continuing Education in Veterinary Medicine), presented "Application of the biopsy diagnosis of rabies in various species" at the annual Public Health Conference for Veterinarians in St. Paul May 11-13.

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Editor: Janet Wallace, Continuing Education in Veterinary Medicine, 23 Veterinary Sciences Bldg., University of Missouri-Columbia, Columbia, MO 65201

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Notes	

Derivatives - Access copy

Compression	Tiff:compression: 1
Editing software	Adobe Photoshop CS5
Editing characteristics	
Resolution	300 dpi
Color	gray scale / color
File types	pdf
Notes	