



VERGINIA MARYLAND



Dr. Marie Suthers-McCabe tends to the medical needs of a search and rescue dog during her two-weeks of emergency service in New York City.

Human/Companion Animal Expert on Scene at WTC Disaster

The events of September 11, 2001 changed the lives of every American, suddenly and irrevocably.

For Dr. Marie Suthers-McCabe, extension specialist human/animal interaction, it meant saying goodbye to her ten-month old son and her husband and leaving almost immediately for Ground Zero in New York City.

There, as a member of Veterinary Medical Assistance Team 2, she spent almost two weeks caring for the assistance dogs that played such a critical role in the search, rescue, and recovery effort.

Suthers-McCabe, who leads the colleges Center for Animal-Human Relationships and supervises the university's Pet Loss Support Hotline, had been a member of VMAT since

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Anthrax Vaccine Development Underway in VMRCVM

As the threat of anthrax-based bioterrorism chills the American public, work continues on a new and improved anthrax vaccine in college laboratories.

There, researchers and technicians in the Center for Molecular Medicine and Infectious Diseases, are using recombinant DNA technology to develop improved vaccines and diagnostic procedures for several organisms, some of which are considered biological warfare agents.

Yet it is the anthrax work that has captured recent media

and public attention. The discovery of anthrax-contaminated mail in national media and federal government offices has resulted in several deaths and changed the way the American people look at their mail.

Bacillus anthracis is a large, gram-positive, naturally occurring spore-forming bacterium, and it enjoys a rather ignominious position in the history of microbiology.

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Top Federal Government Veterinarian Joins VMRCVM Faculty

The federal government's chief veterinarian has assumed a two-year visiting professorship in the College.

Dr. Craig Reed, administrator of the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), began work in the college's department of Large Animal Clinical Sciences in early September. Reed will technically remain a federal employee and affiliate with Virginia Tech under the Intergovernmental Personnel Act, which enables federal

Please see **Craig Reed**: page 27

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Dean's Desk



Firm Foundations and Strategic Growth Will Move Us Forward

Dean Peter Eyre

Just over ten years ago, I began one of these columns by paraphrasing English writer Charles Dickens' oft-repeated line from *A Tale of Two Cities*: "It was the best of times and it was the worst of times."

At that time, we were facing an economic recession that was bludgeoning public university budgets. Our own VMRCVM was new and fragile: we had graduated just five classes, we had not yet completed our building program and the foundations of our academic partnership with Maryland were still in doubt. It was a difficult time, but with resolve, mutual understanding and perseverance we emerged morally and constitutionally stronger.

Let's fast forward to 2002. Another contraction in the business cycle has created another round of budget challenges. Indeed, the scope and depth of the financial problems facing the Commonwealth of Virginia today are daunting by any standard. College and university leaders from across higher education are being forced to confront painful decisions about the future of their institutions. Make no mistake about it: the budget reductions we are facing in this rapidly unfolding fiscal quagmire are again going to change the way we do things.

But 2002 is not 1989. Today, the VMRCVM is a decidedly more mature institution. We have found our place in the international realm of veterinary medical education, and we are fully integrated with the Mid-Atlantic healthcare and public health communities. Our graduates are providing leadership in communities throughout the region and for organized veterinary medicine. Our hospitals are an integral part of animal healthcare throughout Virginia and Maryland, and we are focusing on much-needed research.

Virginia Tech's quest to achieve "Top 30" stature among National Science Foundation measured research universities will dominate our growth agenda during the decade ahead. And our faculty is well poised to advance on this goal. New partnerships are being established by researchers in different departments and other colleges, here at this university and at others. And these collaborations will forge a research environment that will prove an even more able resource for granting agencies from the National Institutes of Health to the Department of Defense.

As I join other university administrators in casting an eye toward the future, I am gratified to see how well our college is integrated in the initiatives that are defining the strategic growth for Virginia Tech during the decade ahead.

- VMRCVM faculty members are working with the new \$50 million Carilion Biomedical Institute on projects ranging from the genetic foundations of disease to cancer.
- The VMRCVM is working with Virginia Tech's College of Engineering and the Wake Forest Medical Center on a new School of Biomedical Engineering that represents just the first of a new alliance of university partnerships that may define higher education during the years ahead.
- The university's new multidisciplinary Food, Nutrition and Health Institute, a think-tank that will critically examine and disseminate information about the inter-relationships between food safety, nutrition and healthcare, has been located here in our college.
- Our college faculty will play an important role in the new Via College of Osteopathic Medicine which will be constructed here in Blacksburg at Virginia Tech's Corporate Research Center.

These new ventures and others like them will help one of the nation's leading land-grant universities make even greater contributions to society during the years ahead. And our regional college of veterinary medicine will play a fundamental role in that process.

Tough times are what they are. But they can also unify and build resolve. Many of my colleagues here in the college were founding faculty and staff members. They remember that this college was not built overnight, nor was it established without sacrifice.

As we grapple with the tough times ahead, I urge you all to join me in moving us forward on our proven strengths. Budget reductions can change the complexion of a college, but they cannot change its true character.

VIRGINIA MARYLAND NEWS BRIEFS



David Sampson

College Consolidates Information Technology Programs, Hires IT Director

A former information technology administrator at Appalachian State University has been named the college's new Director of Information Technology.

David Sampson was recruited to integrate, organize and oversee strategic growth for the college's broad-ranging information technology initiatives.

"Sampson is a seasoned information technology professional who brings a wealth of important experience to this position," said Dr. Grant Turnwald, associate dean for academic affairs. "He provides that expertise in a thoughtful, facilitative way and we're very pleased with the progress we're making in this area."

Prior to Sampson's arrival, IT functions like Veterinary Teaching Hospital business operations, web-based curriculum operations, web outreach and others had been located and supervised in different areas of the college.

A recently announced reorganization to serve college-wide needs now includes a Support Center with trained professionals to provide technical and user support; Applications Development, which provides support for business systems and web development; Systems Administration and Operations, which supports the infrastructure of the entire IT program; Media Services, which includes multi-media and publications support; and Reprographics, which provides copy, fax, and mail services.

Sampson and the IT group recently presented a college-wide information technology retreat which provided a planning forum for faculty and staff. Discussions held at that

event will provide the foundation for an overall strategic planning document.

"Many exciting things are happening in the information technology area for faculty, staff and students," said Sampson. "This is an exciting time for the college and one filled with opportunity. I'm pleased to be a part of it."

Prior to assuming his position at Appalachian State University, Sampson worked in system support and managed the Network Services Department at the University of Colorado at Boulder. He has also held IT applications development and systems support positions in the private sector. Sampson earned a B.S. degree from the University of Colorado in 1983.

Veterinary Informatics Researcher Lands USDA Grant

Dr. Eric M. "Rick" Mills, a research associate in the Department of Biomedical Sciences and Pathobiology, has been awarded a \$100,000 grant from the United States' Department of Agriculture's Cooperative State Research, Education and Extension Service.

The grant will support a major instructional development initiative underway in the college that is being accomplished by a team led by Dr. Holly Bender.

The Problem List Generator software technology that has been developed by the researchers challenges students to develop deductive reasoning and higher order thinking skills as they apply fact-based knowledge in making diagnostic assessments.

Mills will assist in the implementation and evaluation of the PLG instructional technology program at partner universities that include the University of California at Davis School of Veterinary Medicine, the University of Wisconsin School of Veterinary Medicine and the Ontario Veterinary College at the University of Guelph in Canada.

Mills, who formerly operated veterinary practices in the Tidewater area, was the first Ph.D. student recruited to conduct academic work in veterinary informatics by the late Dr. Richard B. Talbot.

Talbot, who served as founding dean of the VMRCVM

and later held several posts in the Food & Drug Administration's Center for Veterinary Medicine, perished in an aircraft disaster in 1994.

Talbot was considered a pioneer in the veterinary informatics field, which melds veterinary medicine with information technology.

VMRCVM, CAS Collaboration Catalyzes Fellowship

An academic collaboration between a veterinary nutritionist in the VMRCVM and a chemist in the College of Arts and Sciences will provide the academic foundation for a Ph.D. student funded with a \$100,000 fellowship from the David and Lucille Packard Foundation.

Dr. Craig Thatcher, Head Department of Clinical Sciences and Dr. Timothy Long, associate professor, Department of Chemistry, will work with Afia Karikari during her five year fellowship. The foundation supports graduates of historically black colleges and universities who are admitted to doctoral programs in the sciences and engineering at any United States university.

She will join Thatcher and Long in their work on biodegradable polymers for drug release vehicles, transdermal nutrient delivery systems, and biomedical vascular adhesives.

She is currently pursuing her Ph.D. in Chemistry, and her collaborations will involve

laboratory efforts in both the VMRCVM and the Department of Chemistry.

"I am particularly excited about fostering stronger research collaborations between the Department of Chemistry and Vet Med," said Dr. Long. "I think that the possibilities are infinite, and the synergies will lead to many new frontiers in new biomaterials."

DLACS Hires Three New Faculty

Three new faculty members have been hired in DLACS.

Dr. Antonio Garcia is an associate professor in Food Animal Production Medicine/Theriogenology. He earned a Ph.D. from the University of Utrecht and his DVM from the University of Mexico School of Veterinary Medicine.

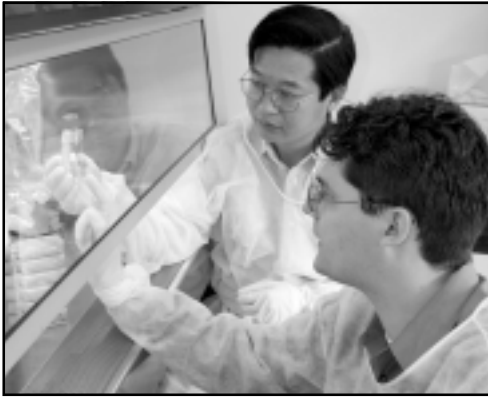
Dr. Douglas Berry is a clinical instructor in Large Animal Surgery/Critical Care. He earned his DVM from Auburn University, and a M.S. degree from Virginia Tech. He conducted a residency at the Marion duPont Scott Equine Medical Center.

Dr. Steven Craig is a research associate professor of fish nutrition. He earned a Ph.D. from Texas A & M, a M.S. from Corpus Christi State University, and a B.S. from Baylor University. Prior to this appointment, he served as operations manager at the Vollum Institute for Advanced Brain Research at Oregon Health Sciences University.



Teams of DVM students and faculty members again presented live animal birthing demonstrations at the Maryland State Fair in Timonium and the Virginia State Fair in Richmond. Here, a brand new baby calf is welcomed into the world.

Dr. X. J. Meng (left), a medical doctor and virologist, works in the Center for Molecular Medicine and Infectious Diseases. Funded with two major NIH grants, Meng is considered one of the nation's leading hepatitis researchers.



13th Annual Research Symposium Profiles Growing Program

Bioterrorism, emerging zoonotic disease problems, and food safety threats underscore the importance and need for more veterinary research in contemporary society, national Joint Institute for Food Safety Research Executive Director Dr. Jerry Gillespie told students, faculty and staff assembled for

the 13th annual research symposium.

"We are in the midst of a huge opportunity for us to step forward as a profession," said Gillespie, urging the profession to step up the production of knowledge that can improve public policy-making, public service and education.

Earlier, Dean Peter Eyre told the audience that the College will accelerate its research program during the decade ahead as a natural extension of institutional maturity and in response to Virginia Tech President Charles Steger's drive to elevate the university to national "Top 30" status.

"We need to be a part of that and we will be a part of that," said Eyre. "There is no medicine without research."

Forty-two 15 minute research presentations made by faculty and students over the day-and-a-half long symposium provided a snapshot of basic and applied research programs in species ranging from dogs to fish.

Top honors in the basic sciences category of the graduate research competition went to Rebecca I. Roche for "Regulation of Expression of sFLT-1, an Inhibitor of VEGF-Stimulated Angiogenesis." Second place went to Trevor P. E. Williams for "Identification of Sites of

Extrahepatic Replication of the Hepatitis E Virus in a Swine Model." Third place went to Jonathan H. Fox for "Down-Regulation of mRNA Transcripts of Chicken Spinal Cord t-Tubulin and an Unknown Gene in Phenyl-Saligenin Phosphate Treated Chickens."

Top honors in the clinical sciences category of the competition went to Kijona F. Key for "Genetic Characterization of the Major Envelope Gene of Acute Porcine Reproductive and Respiratory Syndrome Virus Isolates." Second place went to M. Fenaux for "Infection of Pigs by Injections with Cloned Genomic DNA of a Type-II Porcine Circovirus (PCV-2)." Third place went to Anne K. Weigt for "The Effects of Nd:YAG Laser Photocoagulation on Corneal Touch Threshold, Corneal Nerve Morphology, Aqueous Tear Production, and Intraocular Pressure in the Canine Eye."



Dr. Will Eyestone

Eyestone Appointed to National Academy of Sciences Panel Tasked with Animal Biotechnology Regulations

Dr. Will Eyestone, research associate professor in the Department of Large Animal Clinical Sciences, has been appointed a member of the National Research Council's Sub-Committee on Defining Science Based Concerns Associated with the Products of Animal Biotechnology.

During a visit to Virginia Tech earlier this year, Dr. Stephen Sundlof, director of the Food and Drug Administration's Center for Veterinary Medicine, described the enormous challenge FDA-CVM faces in developing science based regulations on the rapidly developing area of genetically modified animals.

Since the highly publicized birth of Dolly the sheep by Britain's Roslin Institute in 1997, cloning by somatic cell

nuclear transfer has been achieved in a number of species, including mice, sheep, goats, cattle, swine. Somatic cell nuclear transfer involves removing the cell nucleus from an adult animal, inserting it into the egg from another which has had the nucleus removed, and implanting that embryo into a surrogate mother that carries the organism to term.

A number of firms are deploying the technology in a variety of commercial ventures and it falls within the purview of the FDA to determine whether products like meat, milk and eggs derived from "cloned" animals are safe to consume.

In order to do that, the FDA-CVM has contracted with the National Academy of Sciences' National Research Council to conduct a study designed to evaluate the safety of cloned and animals and food products derived from them.

The Sub-Committee on Defining Science-Based Concerns Associated with the Products of Animal Biotechnology is part of the National Research Council's Committee on Agricultural Biotechnology, Health and the Environment.

The committee has been tasked with developing a report that will identify how gene therapy, germ line modifications,

knockout technologies and cloning will impact the overall areas of food safety, animal safety and environmental safety. The group will also recommend areas that require further study.

Eyestone joined the faculty of the VMRCVM in January 2000 following his tenure as Senior Research Scientist at PPL Therapeutics, Inc., located in Virginia Tech's Corporate Research Center. PPL is the US branch of PPL Therapeutics, Ltd., a UK-based company spun-out of the Roslin Institute in the late 1980's.

Eyestone earned his Ph.D from the University of Wisconsin.



Students enrolled in the veterinary technician program on Northern Virginia Community College's Loudoun Campus pose in front of the Veterinary Teaching Hospital during a recent two-day visit to Blacksburg. The students participated in a series of programs designed to familiarize them with life inside a modern veterinary medical healthcare complex. Students enrolled in the veterinary technology program at Blue Ridge Community College in Weyers Cave also participate in the annual visits.



Dr. Taranjit Kaur

Virginia Tech Names New Laboratory Animal Veterinarian

Dr. Taranjit Kaur has been named Virginia Tech's University Veterinarian and Director of the Office of Laboratory Animal Resources. She will also serve as an assistant professor in the College's Department of Biomedical Sciences and Pathobiology.

Kaur holds a V.M.D. degree from the University of Pennsylvania's School of Veterinary Medicine and a Master's of Public Health (MPH) with an emphasis on international health from The Johns Hopkins University in Baltimore.

She also earned a Humanitarian Assistance Certification from Johns Hopkins via a joint program their School of Hygiene and Public Health operates with the International Committee of the Red Cross. She is also board certified by the American College of Laboratory Animal Medicine (ACLAM).

"We're delighted to recruit a professional of Dr. Kaur's stature," said Dean Peter Eyre. "She is superbly qualified for



Dr. Marie Suthers-McCabe

CENTAUR Advancing Understanding of Human/Animal Interaction

Led by a noted expert in the human/animal bond, combining expertise from two Virginia universities and funded by a generous gift from the

National Veterinary Advancement Organization

VMRCVM Public Relations Director Jeffrey S. Douglas concludes his year as president of the national Association of Veterinary Advancement Professionals (AVAP) by passing the leadership gavel to 2002 President Kathleen McLaughlin of the University of Minnesota. AVAP is a professional association of public relations, development and alumni relations officers working at the 31 North American colleges of veterinary medicine.



Several deans participated in a panel discussion on the pivotal role academic deans play in the institutional advancement process during the recent AVAP meeting in Boston. Moderated by VMRCVM Dean Peter Eyre (second from left), the panel included Dr. Bennie Osburn (left) of the University of California, Dr. Ralph Richardson of Kansas State University (second from right), and Dr. Phil Kosch of Tufts University (right).



this job and brings depth and experience in animal resources and public health to a university that is preparing to significantly ramp up its biomedical research activities. We are very pleased to have her with us."

Most recently, Kaur served as an assistant professor in the Department of Environmental and Population Health and an adjunct professor in the Department of Family Medicine and Community Health at Tufts University in Massachusetts.

"Virginia Tech has a commendable record in the animal resources area, and our efforts to promote laboratory animal well-being will continue to be held to the highest standard," said Kaur. "We are all very

dedicated to bringing compassion and professionalism to this very important area of biomedical research."

She possesses more than a decade of experience in supervising animal resource units at some of the nation's most prestigious universities and research centers. She has served as Chief of Veterinary Surgical Resources in the Division of Comparative Medicine at the Massachusetts Institute of Technology in Cambridge, Director of the Animal Resources Center at the UCLA Medical Center in Torrance, California, and Director and Staff Scientist in the Animal Resources Department of The Salk Institute for Biological Studies in La Jolla, California.

She also served as an animal resources consultant for Ligand Pharmaceuticals, a biopharmaceutical company in La Jolla.

Kaur's academic work at Johns Hopkins and extensive travel she undertook throughout Africa and India in the late 1990's helped ignite her strong professional interest in the use of GIS (geographic information systems) to promote public and animal health through the development of disease and environmental monitoring systems. She recently received an \$80,000 grant from the National Science Foundation's Biological Databases and Informatics Program to develop a system for monitoring and forecasting environmental mercury distribution.

Dorothy A. Metcalf Foundation, the college's Center for Animal Human Relationships (CENTAUR) is defining itself as a major research and education center.

CENTAUR is the "brainchild" of Dr. Marie Suthers-McCabe, extension specialist human/animal interaction. The organization provides the academic foundation for a program which unites faculty at Virginia Commonwealth University's Medical College of Virginia and the VMRCVM in a quest to study and promote public understanding of the many different aspects of the human/animal relationship.

At the same time, it seeks to promote collaboration between the human and veterinary medical health communities through research, education and service.

Funding to support graduate education, research, equipment, outreach and programmatic development has been provided through the Dorothy A. Metcalf

Foundation of the Eastern Shore of Maryland. Half of her \$2 million gift to the college endowed a professorship in veterinary informatics, and half was invested in the Virginia Tech Foundation, where it generates annual funding for CENTAUR.

"We're extremely grateful for both the spirit of philanthropy and the foresight which is demonstrated by Mrs. Metcalf's gift," said VMRCVM Dean Peter Eyre. "The work supported by her gift will foster improved understanding of the relationship between people and animals during the years ahead."

CENTAUR has led a series of major annual symposia that have explored some of the linkages between people and animals. Topics have included the beneficial aspects of animal interaction, public health, and others.

Other areas of activity for CENTAUR include pets and

family violence, where violence against animals is often a sentinel event for other forms of domestic violence; animal assisted activities with geriatric populations, disaster management, bereavement, therapeutic horseback riding, and other areas.

Through extension-based outreach activities with social service agencies and other organizations, Suthers-McCabe works with youth and adults on a variety of projects focused at the nexus of human/animal interaction. CENTAUR also works closely with organizations like Virginia Tech's Center for Gerontology.

CENTAUR has also created a M.S. program in Human-Companion Animal Interaction which is operated through the Department of Small Animal Clinical Sciences. Efforts are underway to recruit the first clinical resident in human/companion animal interaction.



Dr. Stephen Boyle

International Symposium on Non-surgical Contraceptive Methods for Pet Population Control Scheduled

Dr. Stephen Boyle, a professor in the Department of Biomedical Sciences and Pathobiology who is currently serving as chair of the Alliance for Contraception in Cats and Dogs (ACCD), is helping organize a major international symposium which will examine immuno-contraception in dogs and cats.

ACCD will sponsor an International Symposium on non-surgical contraceptive methods for dogs and cats at Callaway Gardens in Pine Mountain, Georgia on April 19-21, 2002.

The Alliance is a newly formed group to promote the development of non-surgical methods for contraception of dogs and cats, according to Boyle. One of the specific goals of the Alliance is to sponsor an international meeting to facilitate interaction of interested individuals and to encourage the exchange of ideas and research results.

Boyle is considered a pioneer in the development of feline immuno-contraceptives.

His laboratory has been working for five years on a project to develop a genetically modified strain of salmonella that could be used as a carrier agent to deliver an immuno-contraceptive that could sterilize feral cats.

Feral cat over-population is a major problem facing cities around the world. Feral cats have been blamed for ecological disruptions of songbird populations, public health problems and other maladies.

They are themselves subject to starvation, disease and other dangers, and numerous urban groups have been created to help care for them and reduce their populations.

Fish Nutritionist Joins DLACS/Collaborates with CFAST

A noted fish nutritionist has accepted a joint appointment in the VMRCVM and the College of Natural Resources as a result of a novel funding agreement shared by Southern States and the Virginia Agricultural Experiment Station.

Dr. Steven Craig will collaborate with veterinary nutritionists and Virginia Tech researchers associated with the Commercial Fish and Shellfish Technologies program.

CFAST exists to promote the growth and development of the region's fin and shellfish industries through the development of more efficient production, marketing and distribution methods for fin and shellfish producers.

Craig earned a Ph.D. from Texas A & M University, a Master of Marine Science from Corpus Christi University, and a B.S. in biology from Baylor University. His expertise is in nutritional biochemistry and physiology of fish and seafood with special emphasis on red drum, channel catfish and hybrid striped bass.

Craig conducted a Postdoctoral Fellowship through the USDA's National Research Initiative Competitive Grants Program and served two years as operations manager for the Vollum Institute for Advanced Biomedical Research.



Work continues on the construction of a novel new waste processing facility which will eliminate the air pollution hazards associated with conventional incineration and reduce waste stream volume. During the "dry rendering" process, animal carcasses are placed in a specially designed chamber, agitated and heated by high-temperature, high-pressure steam. The liquid and solid waste components can be safely disposed of in sanitary sewer systems and landfills. The facility is expected to go on line early this Summer.



Genetic Engineering Primer Translated Into Japanese

Dr. Gordon R. Carter

"DNA, Genes and Genetic Engineering," a book published in 1998 by Dr. Stephen Boyle, a professor in the Department of Biomedical Sciences and pathobiology, and Dr. Gordon R. Carter, a microbiologist and emeritus professor, has been translated and published in Japanese.

The 146-page English version of the text is a straightforward explanation of the

terms and processes associated with the biotechnology revolution. Vast amounts of technical information are condensed into core essentials that are presented in a simple and understandable summary form.

The book is written in a way that will enable readers with only a basic understanding of chemistry and biology to be comfortable with the material presented.



A number of emeriti professors recently returned to the college to join college officials for an annual emeriti faculty luncheon. Pictured from left to right are Dr. Bob Martin, Dr. Craig Thatcher, Dr. Lud Eng, Dr. Gordon Carter, Dean Peter Eyre, Dr. Luis Melendez, Dr. Bernie Gross, Dr. Gordon MacInnis, Dr. Grant Turnwald, Mrs. Jane Talbot, Dr. Kent Roberts, Mrs. Joyce Morgan, Dr. Fred Fregin, Mrs. Donna Pitt, Dr. Bob Hammond, Dr. Gerry Colmano, Dr. Don Barber, and Dr. Carl Pfeiffer.



First-year DVM student Krista Magnifico receives her laboratory coat from Dean Peter Eyre during a welcoming ceremony conducted as part of orientation week for new veterinary students. Magnifico, a graduate of the United States Merchant Marine Academy, spent ten years as a merchant marine officer piloting ships around the world before deciding to enter veterinary school.



Annual Fall Symposium Altered by Disaster, but Prevails

Despite the fact that "Comparative Oncology," this year's version of the annual Fall symposium that brings the college and its respective state veterinary medical associations together for a continuing education event was scheduled for just three days after the September 11 atrocities in New York City and in Washington, the show went on.

The emergency shutdown of the nation's air transportation system did keep the guest speakers from flying to Blacksburg for the event, but thanks to the efforts of symposium co-organizers Drs. John Robertson and Marie Suthers-McCabe, the practitioners, students, faculty and staff that gathered for the event still heard impressive presentations concerning new approaches to cancer therapy and gained insights into the emotional implications of the disease.

"While cancer remains a leading cause of death for

people and animals, it is being diagnosed earlier and treated more effectively," said Robertson, a professor of veterinary pathology on faculty in the college's Department of Biomedical Sciences and Pathobiology (DBSP) and director of the college's emerging Center for Comparative oncology (CeCO). "Thanks to advances in molecular biology and other areas of science, progress is accelerating on all fronts."

Yet dealing with the disease takes a tremendous physical and emotional toll on both patients and those who love them, notes Dr. Marie Suthers-McCabe, extension specialist – human/animal interaction, associate professor and director of the college's Center for Animal and Human Relationships (CENTAUR).

"The serious illness or death of a pet is an extremely traumatic event for its owners," says Suthers-McCabe,

The conference also featured a briefing on the status of the development of the Center for Comparative Oncology by Robertson and the announcement and presentation of the annual Veterinary Memorial Fund Research Awards by Dr. Jack Sexton, president of the Virginia Veterinary Medical Association. A mentorship workshop for students and practitioners was held in the morning.

The cancer conference was sponsored by the Virginia and Maryland Veterinary Medical Associations, the American Cancer Society, The Gunst Foundation, Biophile and Hill's Pet Products.

New Residents and Interns Announced

Fourteen new veterinarians have been hired as residents and interns.

Internships and residencies are advanced clinical/educational programs pursued by DVM's seeking advanced training and eventual board certification by organizations like the American College of Veterinary Internal Medicine, the American College of Veterinary Radiology, or the American College of Veterinary Ophthalmology.

There are nine new residents and interns in the Department of Small Animal Clinical Sciences.

Dr. Alexander Gallagher has joined the college as a small animal intern. He completed his undergraduate work at the University of Florida in animal sciences and received his DVM from the University of Florida in 2001.

Dr. Pritti Karnik, who completed her undergraduate work and received her BS in animal science in 1997 from Virginia Tech, has joined as a small animal intern. Dr. Karnik received her DVM from Ross University in 2001.

Dr. Amy Moffatt has joined as a small animal intern. She completed her undergraduate work at Kenyon University and the University of Memphis where she earned her Bachelor of Liberal Studies. Dr. Moffatt received her DVM from the University of Tennessee in 2001.

Dr. Colin Sereda has also joined the college as a small animal intern. He completed his undergraduate work in animal science at the University of Alberta and earned his DVM from the Western College of Veterinary Medicine in 2001.

Dr. Jennifer Warnock, who earned her BA in Integrative Biology from the University of California, Berkley has joined the college as a small animal intern. She earned her DVM from the University of California at Davis in 2001.

Dr. Heidi MacLean is a new resident/graduate student in cardiology. She earned her BS in biology and her DVM from the University of Prince Edward Island. Dr. MacLean has completed a small animal internship at Virginia Tech.

Dr. Marc Rainbow is a new resident/graduate student in ophthalmology. Dr. Rainbow earned his BS in applied physics from Georgia Tech and his DVM from the University of Georgia. He has completed a small animal internship at Texas A&M University.

Dr. Johanna Heseltine-Heal, who completed her undergraduate work at the University of Saskatchewan and earned her DVM from the Western College of Veterinary Medicine, is a new resident/graduate student in small animal medicine. She completed a small animal internship at the University of Prince Edward Island and has served as a Clinical Associate at the Western College of Veterinary Medicine.

Dr. Brett Wood has joined the college as a resident/graduate student in small animal surgery. Dr. Wood earned a dual BS in biology/chemistry from St. Lawrence University, an MS in resource ecology from Duke University, and his DVM from North Carolina State University. He has completed a small animal internship at Virginia Tech. Continued next page



2001 VMRCVM Summer Fellows in Science, Technology and Public Policy Issues in Veterinary Medicine pose for a picture on the steps of the United States Capitol Building. From left, Trevor Lawson, Jennifer McFarling, Julie Zalenka, Lisa Baker, Katherine Myrna, and Jennifer Noll.

There are five new residents and interns in the Department of Large Animal Clinical Sciences.

Dr. G. Anthony Gray has joined the college as a large animal intern. Dr. Gray has worked in several private practices in Virginia. He received his DVM from the VMRCVM in 2001.

Dr. Clare Leger is a new large animal intern. She has worked as a research assistant in equine theriogenology at Atlantic Veterinary College and in veterinary parasitology at the McGill Institute of Parasitology. Dr. Leger received her DVM from Atlantic Veterinary College, University of Prince Edward Island in 2001.

Dr. Juan Pedraza, who has served as a private technical assistant on several dairy farms, is a new large animal intern. Dr. Pedraza earned his DVM from Universidad de la Salle, in Bogota, Colombia.

Dr. Uta Delling is a new resident/graduate student in Large Animal Surgery. Dr. Delling graduated from the Faculty of Veterinary Medicine at the University of Leipzig. She conducted an internship at the Department of Veterinary Internal Medicine and the Department of Large Animal Surgery at Western College of Veterinary Medicine.

Dr. Kristen Kline is a new resident/graduate student in Equine Ambulatory Medicine and Surgery. Dr. Kline earned her BS in Biopsychology from University of California at Santa Barbara, her MS in Animal Science-Equine Nutrition and Exercise Physiology and her DVM from the VMRCVM in 2000.

The Marion duPont Scott Equine Medical Center also welcomed six new residents and interns in July 2001.

Dr. Luciana Brandstetter is conducting an internship in equine medicine and surgery at the EMC. She received her DVM from the College of Veterinary Medicine, Federal University of Goias, Brazil, in March 1997. Dr. Brandstetter served an externship at Auburn University in March 2000.

Dr. Paula de Mattos Guttman is also serving as an intern in equine medicine and surgery. She received her DVM from the College of Veterinary Medicine, Universidad Federal Fluminense, Rio de Janeiro, Brazil, in September 1999. Dr. Guttman served an externship

at the EMC in September 2000.

Dr. Bettina Dunkel joined the EMC staff as an intern in equine medicine and surgery. Dr. Dunkel received her DVM from the College of Veterinary Medicine, University of Berlin, in January 2000. She served an externship at EMC in May 2000 and recently completed a three-month fellowship at Tufts University.

Dr. Richard Hepburn has joined the EMC staff as a resident in equine medicine. He received his BVS from the College of Veterinary Science, University of Liverpool, England, in July 1997. Prior to joining the EMC staff, Dr. Hepburn was employed at a five veterinarian equine practice in Hamilton, New Zealand.

Dr. Jane Lindop has joined as an intern in equine medicine and surgery. Dr. Lindop received her DVM from the Royal (Dick) School of Veterinary Studies, Edinburgh, Scotland, in June 2001. She has served an externship at the EMC in August 2000.

Dr. Julie McGhee has also joined the EMC staff as a resident in equine surgery. She earned her DVM from the VMRCVM in May of 2000. Dr. McGhee served an externship at the EMC in 1999.

Eyre Addresses NRC Workshop

Dean Peter Eyre recently made an invited presentation at a National Research Council Public Workshop entitled "Emergency Animal Diseases: Global Markets, Global Safety- Are We Protecting U.S. Agriculture and Public Health from Global Disease Threats?" which was held in Washington, D.C. at the National Academies.

Eyre's remarks concerned the educational challenges of training and preparing future generations of veterinarians to meet those needs. He also prevented an overview of the college's Center for Government and Corporate Veterinary Medicine.

AAHA Re-accredits VTH

The college's Veterinary Teaching Hospital has been re-accredited by the American Animal Hospital Association.

A quality assessment review of the hospital's facilities, medical equipment, practice methods, and pet health care management programs are all a part of the evaluation process. Only about 15 percent of all small animal veterinary hospitals in the U.S. are accredited AAHA members. The college's Veterinary Teaching Hospital must be evaluated every five years in order to maintain its AAHA accredited status.



Center for Food and Nutrition Policy Affiliates with Virginia Tech

Dr. Lester Crawford

The Washington D. C. based Center for Food and Nutrition Policy, a research and educational organization that serves senior policy makers in industry and government, has become a part of Virginia Tech, according to College of Agriculture and Life Sciences Dean Andy Swiger.

"This center brings a sharp point to many of Virginia Tech's broad research programs both domestically and internationally," Swiger said. "While the expertise of many of our researchers is sought out by policy makers, the center adds a structured policy dimension to our scientific work."

The center, which was named a center of excellence by the United Nation's Food and Agriculture Organization in 1999, has discontinued its former affiliation with Georgetown University and will relocate to the university's Northern Virginia Center.

"We felt that an affiliation with a land-grant institution would be a better fit for the center," said Lester Crawford, director of the center, and also interim executive director of the American Association of Veterinary Medical Colleges. "Being associated with the academic and research units at Virginia Tech will provide a synergy that will greatly enhance the work of the center. Becoming part of Virginia Tech will also involve the center's faculty and students in food and nutrition policy at the state level, which will benefit both the center and the state of Virginia."

Crawford said strong collaboration between the university's College of Agriculture and Life Sciences, College of Human Resources and Education, the Virginia-Maryland Regional College of Veterinary Medicine, College of Natural Resources, the Fralin Biotechnology Center, and the School of Public and International Affairs created an appealing environment for the center.

Formally structured as a part of Tech's CALS, the center's six faculty members will hold faculty appointments in the college's Department of Food Science and Technology. Merle Pierson, professor of food science and technology, played a leadership role in creating the alliance between the university and the center.

VMRCVM Dean Peter Eyre

has known and worked with Dr. Lester Crawford for almost 20 years.

"Dr. Crawford is an internationally regarded veterinarian whose work in the federal government, academia and industry has promoted scientific advancement, fostered sound public policy and increased public understanding of the important linkages between food safety, production and public health," said Dr. Eyre. "We in the college of veterinary medicine see this new affiliation as a very logical relationship and an enormous step forward for Virginia Tech. We are very excited to be playing a role in this initiative."

The mission of the center is to advance rational, science-based food and nutrition policy. The mechanisms for accomplishing the mission include research, outreach, public service, teaching and communications.

It conducts the Ceres® Forum, seminars and conferences presented globally for corporate executives and senior public policy makers on issues related to food and nutrition. It also conducts a graduate program that awards masters degrees in public policy. Graduates of the program are employed by federal agencies, Congressional offices, and major food and drug companies, as well as trade associations.

Swiger said the center's willingness to facilitate the public discussion in sometimes-contentious issues, such as agricultural biotechnology, regulatory policy, and risk analysis, impressed the university.

Crawford has been director of the center since 1997. In former positions he was executive director of the Association of American Veterinary Medical Colleges, executive vice president of the National Food Processors Association, administrator of the U.S. Department of Agriculture's Food Safety and Inspection Service, and director of the Food and Drug Administration's Center for Veterinary Medicine. He was also a faculty member at the University of Georgia. Early in his career, Crawford worked in research and development at American Cyanamid Company.

Large Animal Hospital Re-opens After Six Months of Renovations

The college has re-opened the large animal "in-hospital services" component of its Veterinary Teaching Hospital following a six-month hiatus.

The Harry T. Peters Large Animal Hospital was closed last summer in order to mount a major renovation and remedial effort designed to quell a stubborn salmonella problem that had posed a recurring infection risk for people and animals.

The primary component of the \$275,000 project includes the replacement of about 14,000 square feet of flooring with a urethane/concrete composite material that establishes a water-tight seal between the floor and its supporting infrastructure. Hospital officials and epidemiological investigators had theorized that residual moisture from routine cleaning had penetrated the surface of the original 20-year old floor through cracks and other breaches and was harboring the salmonella bacteria.

In addition to resolving the leakage issues, the new floor also possesses a rough, granular surface that provides adequate traction for both patients and hospital personnel under both wet and dry conditions. Major improvements were also made by incorporating better drainage into the new floor surface.

"The floor renovation has been completed and we have a heightened surveillance plan in place to manage our patients and monitor our facility," wrote Veterinary Teaching Hospital Director Dr. Robert Martin to area veterinarians in a letter informing them that the facility had re-opened. "We believe we can serve you better now than ever before and that is our goal and commitment."

A number of other structural enhancements were made to the Peters Hospital complex as part of the improvement efforts. Some of those include the replacement of existing wood casement and counter areas with stainless steel, the installation of new stall matting in many of the animal holding areas, and new electronic plumbing fixtures designed to foster high standards of biosecurity in the



Large Animal Intern Dr. Anthony Gray works on a patient with fourth year DVM students Patti Sura and Lisa Math in the College's newly reopened Harry T. Peters Jr. Large Animal Hospital.

hospital environment, according to Hospital Administrator Dr. Rick Hiller.

VMRCVM clinical services for large animals such as horses, cattle, sheep, goats and others had been available throughout the shut-down period on an outpatient basis, Martin said. But major clinical services had been curtailed in the facility that includes animal holding stalls for 37 patients and two large animal surgical suites. About 1100 large animal patients are treated in the Peters hospital annually.

"This has been a major project that has required the assistance, cooperation and understanding of many people in our college and among those we serve," said VMRCVM Dean Dr. Peter Eyre. "Our clients expect excellence in animal health care from us, and these steps were taken in order to ensure that we meet those expectations."

Salmonella is a zoonotic disease, or one that infects people and animals. The salmonella bacterium infects the gastrointestinal system, causing diarrhea, fever, and flu-like symptoms.

Animals suffering from salmonella infections are treated fairly frequently in the Veterinary Teaching Hospital. The organism is shed in the feces of infected animals and people and the disease is spread when salmonella contaminated fecal material is inadvertently moved from one area to another.

Salmonella infections commonly affect large animal teaching hospitals in colleges of veterinary medicine across the

country. However, this is the first time in 20 years that VMRCVM officials have had to shut down clinical services in an effort to eliminate a persistent problem.

A task force of college faculty members has worked with university facilities staff and private contractors throughout the remedial and improvement effort.

Cancer Research Conference Scheduled April 12-13, 2002

The annual American Cancer Society (ACS) Seminar of Cancer Researchers in Virginia will be held on the Virginia-Maryland Regional College of Veterinary Medicine's Virginia Tech campus April 12-13, 2002.

This meeting is expected to attract more than 120 research scientists, primarily from the medical schools at the University of Virginia, Virginia Commonwealth University's Medical College of Virginia and the Eastern Virginia Medical School in Norfolk.

A number of Virginia Tech oncology researchers will also be on hand to help showcase the university's emerging programs in cancer/cell cycle and tissue engineering, according to Dr. John Robertson, director of the new Center for Comparative Oncology.

On Friday the 12th, a reception will be held for ACS and Carilion administrators and a full-day of presentations will be offered on Saturday in college lecture halls and facilities.

For more information about the event, contact Dr. Robertson at 540-231-4643 or drbob@vt.edu.



Dr. Sharon Witonsky (left), assistant professor, Department of Large Animal Clinical Sciences, and Dr. David Lindsay, associate professor, Department of Biomedical Sciences and Pathobiology (right), look on as laboratory technician Kay Carlson works in the Parasitology Laboratory.

Parasitologist Developing New EPM Test

Work is underway in college laboratories on an improved test for Equine Protozoal Myeloencephalitis (EPM), a vexing neurological disorder caused by the parasite *Sarcosystis neurona*.

Under the leadership of Dr. David Lindsay, associate professor, Department of Biomedical Sciences and Pathobiology, a research team is attempting to perfect a direct agglutination test for the presence of the parasite that could lead to improved specificity and improved sensitivity for EPM testing.

EPM causes gait abnormalities, loss of balance, muscle wasting, weakness, paralysis, seizures and even behavioral disorders in its victims.

Initially recognized about 35 years ago, the disorder has received a great deal of attention among horse owners, veterinarians and equine researchers since a diagnostic test for *S. neurona* became available about a decade ago.

EPM is considered the most significant parasitic disease affecting horses in the Americas, according to Lindsay.

Most cases are diagnosed in the Summer and Fall, according to a major study undertaken by USDA-APHIS's "Equine '98" National Animal Health Monitoring System study.

Some seroprevalence testing in states such as California, Colorado, Florida, Kentucky, Ohio and others has suggested that as many as 30 to

60% of horses have been exposed to the parasite, yet researchers do not fully understand why some develop clinical signs of EPM and others do not.

Researchers do know that opossums are the definitive host for *S. neurona*, and that the parasite is ingested as horses graze on infected pastures. The parasite eventually moves to the horse's central nervous system.

The disease is best treated with a combination of antimicrobial/antiparasitic drugs, and anti-inflammatory drugs and nutritional supplements are often used as supportive therapy. But it is expensive to treat, can affect a horse so severely it must be euthanized, and can cause lingering problems that can impair athletic performance.

Improving the existing diagnostic tests can help veterinarians begin treatment earlier, and help them better gauge the progress of their therapeutic interventions.

Currently, the diagnostic test for EPM is a Western Blot that tests cerebrospinal fluid for the presence of antibodies to *S. neurona*.

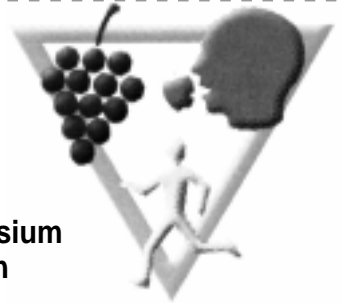
The agglutination test under development in college laboratories actually quantifies the level of antibodies present as they clump around a foreign agent.

The test promises to be more accurate, less expensive, and will not require specialized laboratory equipment. Validation testing among horses is underway with the cooperation of Drs. Anne Cook,

Sharon Witonsky and Virginia Buechner-Maxwell, all with the Department of Large Animal Clinical Sciences.

While promising, the

research will require another two years to complete, so commercial application of the new diagnostic test is likely years away.



Food & Nutrition Symposium Presented in Washington

Over 100 officials from government, education and industry gathered for the Food, Nutrition and Health Institute's "Critical and Emerging Science and Policy Issues Symposium" held recently in Falls Church, Virginia.

This was the first public event hosted by Virginia Tech's new Food, Nutrition and Health Institute, under the direction of Dr. Craig Reed; and Virginia Tech's Center for Food and Nutrition Policy, under the supervision of Dr. Lester Crawford.

The symposium provided an opportunity for experts to discuss the impact and economic value that food and nutrition research can have on health, treatment costs, and quality of life through improved disease prevention and food safety.

The symposium also provided officials with information on how improved food, nutrition and health research can enhance federal, state and corporate efforts to improve healthcare costs and efficiency.

The symposium was deemed a major success for Virginia Tech as it continues to emerge as a leading research institution for studies in the food and health industries, according to Dr. Craig Reed, director of the new Food, Nutrition and Health Institute.

"This was a timely and well-received program which was attended by a number of significant thought-leaders," said Reed, who formerly led the USDA's Animal Plant Health & Inspection Service. "I think Virginia Tech made significant progress in its efforts to establish itself as a major player in the arena of human health, nutrition, and food safety."

Featured speakers included The Honorable Louis Rossiter, Secretary of Health and Human Resources, Commonwealth of Virginia; The Honorable Claude Allen, Deputy Secretary, U.S.

Department of Health and Human Services; The Honorable Elsa Murano, Under Secretary of Agriculture for Food Safety, U.S. Department of Agriculture; Dr. Charles Steger, President, Virginia Tech; Dr. Peter Eyre, Dean, Virginia-Maryland College of Veterinary Medicine, and others.

The event was sponsored by Virginia Tech's colleges of Agriculture and Life Sciences, Human Resources and Education, Natural Resources, and the Virginia-Maryland Regional College of Veterinary Medicine. The event was also sponsored by Roche Vitamins, Southern States Cooperative, Monsanto, Tyson Foods, and Virginia's Center for Innovative Technology.

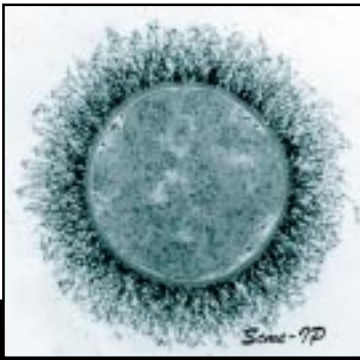
Lindsay Co-authors Feline Parasitology Text

A new parasitology book co-authored by Dr. David Lindsay, associate professor, Department of Biomedical Sciences and Pathobiology, has been published by the Iowa State University Press.

"Feline Clinical Parasitology" is a 480-page text that offers an in-depth examination of feline parasites. Topics covered include parasite identification, history, geographic distribution, pathogenesis, epizootiology, zoonosis, diagnosis, treatment, control, and prevention.

Parasites of the cat fall into four major groups, which are all covered in this text: the common cosmopolitan parasites, the parasites that are important in certain geographic areas, those that are rare and show up in large numbers in certain countries, and those that are rare where cats serve as atypical hosts.

Other co-authors include Dwight D. Bowman and Charles M. Hendrix.



ANTHRAX

continued from page 1

Dr. Nathan Sriranganathan and colleagues are working on the development of a new anthrax vaccine in Center for Molecular Medicine and Infectious Diseases laboratories.

In 1877, microbiologist Robert Koch, known for the famous “Koch’s Postulates,” cultured the organism and demonstrated for the first time that a bacterium could cause disease.

“Anthrax can be a deadly organism, but people should remember that America remains an endemic country for anthrax,” says Dr. Nammalwar Sriranganathan, a veterinarian and microbiologist who is working on the new vaccine in the college’s CIMMID. Naturally occurring cases of the zoonotic bacterial disorder are still found in some domestic livestock and in wildlife and there are occasional human exposures, Sriranganathan says.

But there are characteristics of the organism and the disease it causes which make it an ideal agent for bioterrorism, Sriranganathan says. Anthrax can be deadly, it can be produced in dangerous quantities using readily available supplies and equipment, and it can be spread in several ways, ranging from the mail system as we have seen, to crop-dusting airplanes.

One of the reasons the anthrax organism is so well suited for this craven application is because of its ability to evolve into a dormant state known as a “spore.” This highly protective capsule can withstand light, heat, and other environmental threats and is extremely durable and long lasting. One form of bacillus spore unearthed in a Utah salt mine was determined by carbon dating to be

about 300 million years old, Sriranganathan said.

Anthrax is infectious, but not contagious. That means that a person suffering from anthrax cannot pass the disease to another.

Anthrax causes three forms of disease, according to Sriranganathan. The cutaneous form causes less serious disease and is easily treated. Cutaneous anthrax can be contracted by a person through an open wound from an infected animal or a spore-contaminated piece of mail. The second, or systemic form, attacks the gastrointestinal system and might occur when an animal eats tissues or bone from another contaminated animal. Even this form is treatable in animals when antibiotic therapy is initiated early enough.

It is the pulmonary form of anthrax that poses the greatest risk to human health, according to Sriranganathan. The disease can be effectively treated with antibiotics following exposure; however, it may be difficult to detect exposure before clinical signs develop, and once clinical signs develop, antibiotics are not as effective.

Clinical signs of the diseases vary, but may include headache, swelling, fever, aches, and other signs. In the case of pulmonary anthrax, the most serious form of the disease, the lungs fill with fluid, and blood poisoning and massive internal hemorrhaging soon follow.

Scientists believe that bacterial load and a person’s immuno-competence play a role in whether or not the disease is contracted after exposure. The

scientific community remains unsure about the possibility of collateral contamination within the mail supply, but know that the amount of anthrax spores one is exposed to is a critical factor in the onset of disease. Most believe that a bacterial insult of at least 10,000 spores is required in order to cause pulmonary anthrax.

The fact that anthrax has leaped from a once vague and distant fear to an everyday threat has increased the urgency of the researchers’ work.

With more than \$1 million in funding from the U.S. Army, Drs. Sriranganathan, Gerhardt Schurig and Stephen Boyle are developing a new anthrax vaccine for people and animals. A fifteen-year effort that culminated with the development, approval and marketing of the RB-51 brucellosis vaccine (which now serves as the global standard) in 1996 has provided the foundation for the current work, which is focused on the production of multi-valent vaccines that can confer immunity to several different diseases through the administration of a single inoculation.

Anthrax has two virulent properties, an anti-phagocytic glutamic acid capsule and a tripartite toxin. The tripartite toxin includes Lethal Factor, Edema Factor, and Protective Antigen (PA), which is required in order for Lethal Factor and Edema Factor to cause disease. So far, the researchers have synthesized the portions of *Bacillus anthracis* DNA which code for protective antigen, used recombinant

DNA technologies to introduce those fragments into the RB-51 platform, and achieved successful expression of Protective Antigen.

By precisely challenging the immune system to develop a response to the Protective Antigen alone, the researchers hope to create a vaccine that confers greater immunity with fewer side effects. Work is presently focused on evaluating the efficacy of the levels of Protective Antigen that are expressed by the new vaccine.

The researchers are beginning to test the vaccine with laboratory animals. Once those trials are satisfactorily completed, the next step would be to test the vaccine with primates, most likely in conjunction with the United States Army Medical Research and Development Command at Fort Detrick in Frederick, Maryland.

Following the completion of that work, the vaccine would need to be approved by the Food & Drug Administration and the United States Department of Agriculture before it could be licensed for use.

While the work is still several years away from completion, Sriranganathan says that people should be comforted by the fact that the government and the military have been preparing to deal with this sort of problem for a long time.

Sriranganathan believes we will likely see more anthrax cases in animals in the future as a result of the recent bioterrorist incidents. Most likely, they would come as a result of collateral contamination as opposed to pure agri-bioterrorism because if a person or group wished to commit a bioterrorist act against American agriculture they would most likely use a more contagious agent, such as Foot and Mouth Disease, he said.

The entire public health and agricultural community has increased surveillance and is on high alert for suspicious clinical signs in people and animals, Sriranganathan said, which will help officials contain and cope with any disease outbreaks which may occur in the future as a result of terrorist activity.

Making the Grade on Pain Relief

By Meg Conlan

Terms like “baseline ground forces,” “vertical impulse” and “vertical peak force,” might seem like something straight out of *Consumer Reports’* latest review of sports utility vehicles.

But in the Virginia-Maryland Regional College of Veterinary Medicine’s research laboratories and teaching hospital, they’re part of the language used for evaluating the performance of four legs, not four wheels.

That’s because osteoarthritis specialist Dr. Spencer Johnston’s work with state-of-the-art force plate analysis has made Virginia-Maryland a top choice for securing reliable data on a new treatment’s level of effectiveness.

Force plate is a measuring device that records and displays the force a dog exerts when it walks. Producing information on “peak force” and “impulse,” it allows the veterinarian or researcher to attach an objective number to a dog’s response to treatment.

Compared to a healthy dog, one with joint degeneration will experience pain when it puts weight on the affected joint and consequently will try to keep weight off the limb. As the dog walks, it will be slower to put weight down and quicker to pull weight off. By measuring these reactions before and after a treatment, the force plate assures an objective analysis of the dog’s response to the treatment.

Whether the treatment is surgery, drugs, or nutritional supplements, force plate analysis provides the makers of new alternatives with a non-invasive, objective analysis that is critical for assuring their product is performing up to standard.

And that’s good news for pet owners when you consider 20 percent of all dogs suffer from some form of osteoarthritis – a degenerative joint disease causing chronic lameness.

Treatment for this disease in animals was limited for years, leaving pet-owners with few choices. That’s quickly changing as new drugs are coming onto the market, and advances are being made with less invasive surgical techniques like arthroscopy. But with each new alternative, it’s important for veterinarians and dog-

Licensed veterinary technician Colleen Smith leads a dog during an evaluation in the Force Plate Laboratory established by Dr. Spencer Johnston, associate professor, Department of Small Animal Clinical Sciences. Smith recently left the college to attend veterinary school at Ross University in St. Kitts.



owners to have some objective assurance of a treatment’s effectiveness against pain.

Johnston and other researchers believe the best way to get such a measure is by using force plate analysis.

Because of Johnston’s expertise in the field of osteoarthritis and his track record conducting clinical trials that can stand up to scrutiny, more and more companies are calling on him and the research facilities at Virginia-Maryland for help.

The makers of etodolac, for example – a new nonsteroidal anti-inflammatory drug for treating osteoarthritis in dogs – turned to Johnston, who used force plate analysis as part of a multi-institutional study to show the drug was effective at reducing a dog’s pain and improving its mobility.

Johnston has also used force plate analysis to compare the effectiveness of arthroscopy – use of a fiber-optic scope, as opposed to arthrotomy – a surgical incision into the joint. And he’ll be using the force plate to explore the use of products in a completely new class of drugs that could prove even safer to use than those currently on the market.

So while *Consumer Reports* can provide a scorecard for what comes off the assembly line, the makers of new products will continue to turn to researchers like Johnston to get a grade on their treatment’s promise as an effective alternative for consumers and their pets.

Meg Conlan is a DVM student who works periodically with the college’s Office of Research and Graduate studies.

Federal Information Technology Grant Largest in History of Veterinary College

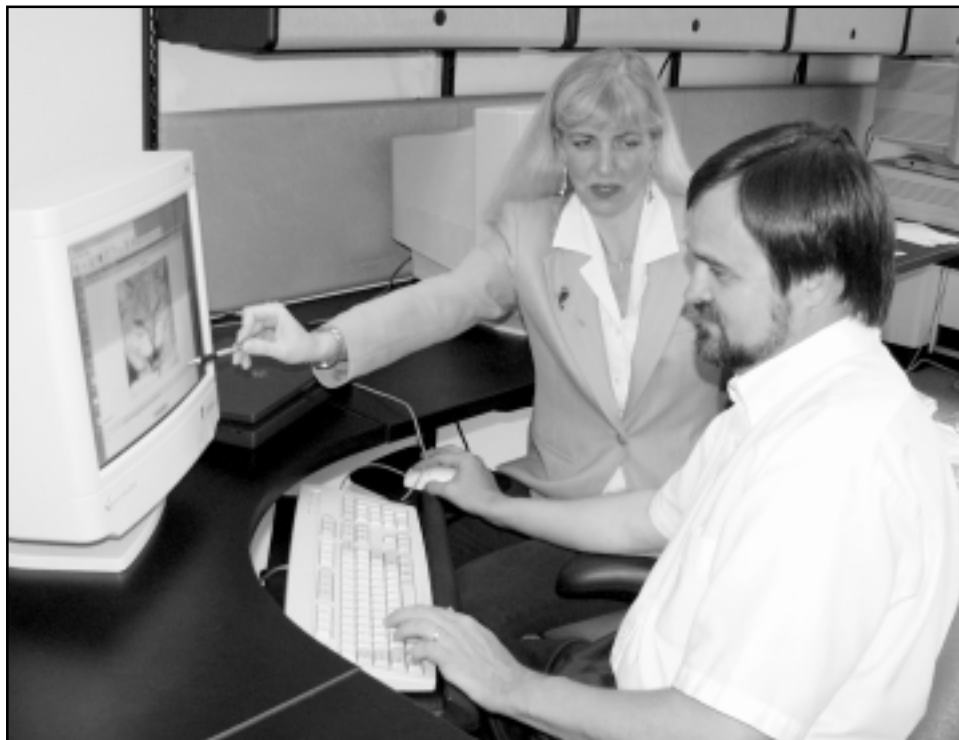
The largest research grant in the history of the College has been awarded to a group of researchers working on the development of new instructional technologies that help develop students' analytical reasoning skills.

The United States Department of Education will provide \$1.24 million dollars in funding through their "Learning Anywhere, Anytime Partnership" program to support the continued development and broader application of the researchers' "Problem List Generator" software technology, according to Dr. Holly Bender, an associate professor in the college's Department of Biomedical Sciences and leader of the group.

"We're absolutely elated by this support," said Bender, who has been collaborating for five years with researchers in Virginia Tech's Biomedical Informatics Research Group (BIRG) on the development of computer-based interactive teaching tools. "A lot of people have worked very, very hard to develop this technology to a point where a grant of this stature and magnitude is possible. Words can't capture the sense of excitement we feel about this."

The PLG software technology challenges students to develop deductive reasoning and higher order thinking skills as they apply fact-based knowledge in making diagnostic assessments. While originally developed to help train veterinary students improve their clinical pathology abilities, the software can be applied in computer science, marketing, business administration, mathematics, human medicine and other fields where problem-solving is required, according to Bender.

"Our college has made a commitment to sharpen its focus on research in every form during the decade ahead," said VMRCVM Dean Peter Eyre. "So landing a grant of this magnitude in such a burgeoning area of inquiry is very energizing for all of us. This is a significant milestone in the history of our college's research program."



Dr. Holly Bender, associate professor, Department of Biomedical Sciences and Pathobiology, and Dr. Rick Mills, research associate professor, work on their "Problem List Generator" software technology.

Among other objectives, the grant will enable the researchers to establish partnerships with the University of California at Davis School of Veterinary Medicine, the University of Wisconsin School of Veterinary Medicine and the Ontario Veterinary College at the University of Guelph in Canada. The group will also partner with the American Society of Veterinary Clinical Pathology and the Veterinary Information Network (VIN), the largest on-line veterinary continuing education company in the world.

The program enables students to work through a problem and simultaneously compare their problem-solving approaches to the way experts think through the problem. The technology actually enables the instructor and the students to "see" what the other is thinking as they work through the process. Improved problem-solving abilities in students are fostered by the immediate feedback they get from comparing their own cognitive approaches to expert approaches, according to Bender.

Bender began working on the project to improve the way veterinary students learn how to apply knowledge in a problem-solving environment. While first-year students enrolled in the DVM curriculum spend much of their time learning facts, second year students are challenged to begin developing

"higher order thinking skills" by applying their knowledge in "case-based" problems.

One of the biggest problems she saw in her students was a tendency to jump to diagnostic conclusions on the basis of pre-conceived notions without fully considering all available evidence. To counter that, the Web-based auto-tutorial forces the students to work through a process where they "arrange data abnormalities in a causal hierarchy," according to Bender.

For example, clinical pathologists routinely evaluate blood and urinary chemistry assays that provide information on blood hemoglobin, white blood cells and a range of other parameters.

By systematically identifying all available data as it relates to normative values, hypothesizing about the mechanisms responsible for the aberrations, and factoring those into a problem-solving hierarchy, the students build a deductive "argument for the complete pathogenesis of the disease," Bender said.

"It enables students to think better and account for their decisions better," she said. "They're thinking better," said Bender. "They're accounting for their decisions better."

Public Practice Program Developing

VMRCVM Alums Well Represented at FDA-CVM

Just over ten years ago, the VMRCVM established its Center for Government and Corporate Veterinary Medicine to help train a new breed of veterinarian to serve in public service and industry.

If the number of VMRCVM grads working at the Food and Drug Administration's Center for Veterinary Medicine is an indicator of success, the college should be gratified it took the steps it did. Fully 30% of the 59 veterinarians employed by FDA-CVM earned their DVM's from the VMRCVM.

One of those is Dr. Don Prater, a '96 DVM graduate who began working for FDA after completing a residency in pathology. "I think I was very well prepared by the college," says Prater, who now works as a member of the center's Aquaculture Drug Team and continues work on his Ph.D. "I think it's very important work that we do here and it's very scientifically challenging."

Day-to-day work for Prater means evaluating anti-microbials, spawning

aids, external bath treatments and other agents targeted for use in America's burgeoning aquaculture industry. FDA-CVM began to intensify its programs in that area following passage of the National Aquaculture Act in 1980, Prater said.

The Aquaculture Drug Team is led by another VMRCVM graduate, Joan Gotthardt, Class of '95. Like Prater, she credits externship experiences gained by tracking through the Government and Corporate program with illuminating her career path in government service.

"The FDA-CVM clerkship gives students a pretty good idea what CVM does and a good idea if they would fit in after they graduate," said Gotthardt, who coordinates the evaluation and testing of new animal drugs in the aquaculture industry. "I accepted the job right out of school and have never looked back. I'm very happy with what I do."

FDA administrators have also worked hard to create a valuable externship experience for DVM students, according to Dr. Steven Vaughn, who directs the Division of

Therapeutic Drugs for Food Animals in the FDA-CVM's Office of New Animal Drug Evaluation.

Since developing the FDA externship program in 1993, Vaughn has mentored almost 20 students from veterinary schools located throughout the nation.

"The students that have come here [from the VMRCVM] have been top quality," said Vaughn, who was honored with the an FDA Civilian Honor Award in 2000 for his work with the externship program. "We've hired quite a few of them and they have gone on to be our stellar employees."

Vaughn says the training VMRCVM graduates receive in pharmacology, toxicology and basic clinical veterinary medicine is an asset for the drug safety and evaluation work done in the Office of New Animal Drug Evaluation.

"I think they have a very good background in veterinary medicine," Vaughn said, "And that's very important for the work we do here."

Another VMRCVM graduate





VMRCVM alums working in the FDA-CVM took a moment to pose for a group picture. From left, Dr. John Baker ('85), Dr. Tina Burgess ('93), Dr. Neil Battaler ('88), and Dr. Don Prater ('96).



FDA administrator Dr. Steven Vaughn received a 2000 FDA Civilian Honor Award for his leadership with the externship program.

working at FDA-CVM credits her strong training in basic clinical medicine with the success she's found in government service.

"What I do here is probably much more specific than what everyone else (VMRCVM alums) does," says Dr. Tina Burgess, Class of '93. Burgess reviews adverse drug reaction reports and enters them into an FDA database and also practices clinical medicine at an Arlington animal hospital.

Dr. John Baker, Class of '85, credits a strong foundation in pharmacokinetics with his

ability to conduct the pre- and post-approval companion animal drug evaluation work he's doing for FDA-CVM.

"The college did a good job with the applied clinical information," said Baker, who adds that he also learned a lot about the regulatory aspects of the work "on the job."

Dr. Neil Battaler, Class of '88, went to work at FDA-CVM in 1993 after doing graduate work in veterinary clinical nutrition and epidemiology. Today, Battaler works as a Consumer Safety Officer in the Division of Compliance.

"Most of my duties are related to enforcement issues," says Battaler, who is working on the agency-wide effort to keep "Mad Cow Disease" (BSE) out of America, internet pharmacy compounding issues and other areas.

"Most of the employees here who trained at Virginia Tech do quite well," said Battaler, adding that the university's geographic proximity to Washington also plays a role in the agency's employment patterns.

"I'm proud that we're not just warm bodies," he said. "I think Virginia Tech people really make a difference."

VMRCVM Public Practice Veterinary Club Helps DVM Students Prepare for Government, Corporate Practice

The veterinary college that takes pride in its nationally recognized Center for Government and Corporate Veterinary Medicine now has an extra-curricular organization that helps students gain further insights into the world of non-traditional veterinary practice.

"The Public Veterinary Practice Club promotes the many facets of non-traditional veterinary medicine," says President Margaret Bowman. "We provide speakers and experiences to expose the students to public veterinary medicine."

The PVP Club has five areas of programmatic emphasis, according to Bowman: Wildlife/Zoo Medicine, Public Health, Corporate Medicine, Veterinary Policy, and International Veterinary Medicine. The group tries to annually bring in speakers that represent these five areas of interest.

During the club's first year of existence, featured speakers included representatives from the Mountain Gorilla Veterinary Project in Africa, the American Veterinary Medical Association's Government Relations Division and others.

In an effort to increase inter-cultural awareness and understanding, the Public Practice Veterinary Club arranges several dinners each semester with veterinarians from different countries, Bowman says.

The club led college efforts last year to develop a suitable business card for DVM students, Bowman said. The cards have proven to be a very useful professional tool for DVM students who are interviewing for jobs and meeting new people at conventions and seminars.

The club also organizes field trips to destinations like the National Aquarium in Baltimore, the National Zoo in Washington, D.C., and pharmaceutical corporations such as Merck, she said.

Officers for 2001-2002 include Bowman, president; Kim Arthur, Vice President; Karen Wolfe, Secretary; Betsy Challen, Public Relations; and Jody Dickey, Internal Relations. Faculty advisors include Dr. Bettye Walters, associate director of the Center for Government and Corporate Veterinary Medicine, and Dr. Bill Huckle, an assistant professor in Biomedical Sciences and Pathobiology.



Dr. Stephen Smith examines one of the adult horseshoe crabs maintained in Virginia Tech's new Horseshoe Crab Research Center.

Virginia Tech Opens New Horseshoe Crab Research Center

University researchers, government agency and industry representatives and other leaders recently gathered to dedicate Virginia Tech's new Horseshoe Crab Research Center and tour an aquacultural holding facility that contains the largest research colony of adult horseshoe crabs in the country.

Dr. Stephen Smith, associate professor, Department of Biomedical Sciences and Pathobiology, and director of the VMRCVM Aquatic Medicine Laboratory, has

co-founded the center with Dr. Jim Berkson in the College of Natural Resources, who serves as the facility's director.

Over the past several years, management of the horseshoe crab population has become increasingly controversial. Fishermen catch horseshoe crabs for use as bait in the lucrative eel and conch fishery. Biomedical companies catch and bleed horseshoe crabs to produce a valuable chemical (LAL) used in the biomedical industry to detect the presence of bacteria in injectable drugs and implantable devices.

Environmentalists are concerned about these harvests because migratory shorebirds depend on horseshoe crab eggs to fuel their migration to their arctic breeding grounds each year. The battle over this ecologically, economically, and medically essential species has become one of the most heated environmental issues on the east coast in recent years.

In the midst of this controversy, resource agencies have been forced to make critical management decisions in the absence of needed data. Virginia Tech's new Horseshoe

Crab Research Center has been established to provide information necessary to improve the management of this important species.

"We're looking at the morbidity and mortality associated with the bleeding, regeneration times associated with the blood volume, and we're also looking at *in vitro* culture of the amoebocytes," said Smith, who is co-principal investigator with Berkson on about \$320,000 worth of funded horseshoe crab related research.

Smith said other biomedical research underway in the center seeks to learn more about the immunology of horseshoe crabs as it relates to other arthropods. Although commonly viewed as a form of crab, scientists believe horseshoe crabs are more closely related to scorpions and spiders. That suggests the possibility that these other organisms might harbor substances that might function similarly in the biomedical industry.

The Horseshoe Crab Research Center combines faculty, students, facilities and expertise from Virginia Tech's Department of Fisheries and Wildlife Sciences in the College of Natural Resources, Virginia-Maryland Regional College of Veterinary Medicine, Conservation Management Institute, and the new Virginia Bioinformatics Institute.





Dr. Holly Bender

Bender Awarded 2001 Wine Award

A passion for teaching and a fascination with technology have combined to make Dr. Holly Bender one of the brightest stars in an emerging group of university faculty members dedicated to transforming the way students learn.

The clinical pathologist on faculty in the Department of Biomedical Sciences and Pathobiology has been recognized with a 2001 Wine Award, considered the most prestigious among university teaching awards.

This crowning award for instructional excellence rests on a strong foundation of earlier honors. Bender has received seven "Teacher of the Year Awards" in the VMRCVM, two Merck AgVet Awards for Innovative Teaching, two College Teaching Excellence Awards, a Virginia Tech Certificate of Teaching Excellence, and the prestigious Carl J. Norden Distinguished Teacher Award, a national award which

recognizes outstanding teaching within the profession of veterinary medicine.

Since arriving in 1980, Dr. Bender has accumulated overall student evaluations of 5.72 on a six-point scale. "I love to teach," said Bender, who earned her DVM from Michigan State and her Ph.D. degrees from Virginia Tech in conjunction with the University of Georgia. "When you see the light come on in a student's eye, it's an incredibly rewarding experience."

Bender's clinical pathology course was rated the number one veterinary educational experience among alumni surveyed as part of the college's recent "outcomes assessment" based accreditation review.

"Our veterinary students are fun to teach," she adds. "These students are incredibly motivated. You don't have to build a fire under them. They've got the fire. They just need the direction."

One way Bender is providing that direction is with creative new teaching methods that make the most of emerging instructional technologies.

Bender is the visionary behind the

university's Biomedical Informatics Research Group (BIRG) and team leader on the development of a new internet-based analytical reasoning program termed "Problem List Generator (PLG) that has attracted international attention in educational circles.

The innovative PLG program challenges students to develop deductive reasoning and higher order thinking skills as they apply fact-based knowledge in making case-based diagnostic assessments.

"I've never seen them think this well," said Bender, who has constructed a major research program based upon the PLG software platform. "The results are astonishing! Everyday I have students come in to my office and say 'Now I can see myself becoming a clinician and I never could before.'"

Principal investigator on just under a half million dollars in educational research grants for BIRG, Bender has recently been notified the group will receive \$1.24 million in new funding from the federal Department of Education.

18th Annual Student Awards Ceremony Held

Veterinary students receiving academic scholarships and donors were recognized during the college's recent 18th Annual Awards Program.

Dean Eyre discussed the

importance of private support for veterinary education, praised donor organizations and individuals, and suggested that private support will play an even more critical role in the welfare

of the college in the future during opening remarks.

Students recognized during the ceremony included:

AWARD

The Clarence and Gertrude Leach Memorial Scholarship
The American Kennel Club Scholarship
The American Veterinary Medical Foundation Scholarship
The Association for Women Veterinarians Scholarship
The AVMA PLIT SAVMA Scholarship
The Mary Kemble Barnes Memorial Scholarship
The Bil-Jac Nutrition Award
The Dr. G. Daniel Boon Memorial Scholarship for Excellence in Veterinary Clinical Pathology
The Dr. J.D. Carter Award
The Kay Daugherty Spirit Award
The John W. David Memorial Scholarship for the Study of Wildlife Diseases
The Eastern Shore Veterinary Medical Association Scholarship
The Herman Fiedler Scholarship for Students From Rural Areas
The Ruth S. Fleming Scholarship
The Greater Fredericksburg Kennel Club Scholarship
The Richard S. Howe Quest for Excellence Award in Small Animal Medicine
The International Conference on Exotics Scholarship in Memory of Dr. Pamela Slack
The Maryland Kennel Club Scholarship
The Maryland Veterinary Medical Association Past Presidents Scholarship

RECIPIENT

Scott Gustin, Nancy Johnson, Spencer Nice
Benjamin Haas, Kara Kolster
Travis Taylor
Elizabeth Challen, Matthew Stachmus
Kathryn Erswell
Robin Gwiazdowski, Melissa Miller
Peggy Booth

Kelly Anderson, Diane Gildersleeve
Kathleen Meehan
Jody Hewitt

Elizabeth Embree
Rebecca Allen
Benjamin Blankenship
Kevin Brightbill, Matthew Stachmus
Sara Chiaramonte, Elaine Kelly

Barbara Bell

Lilliam Alfaro, Debbie Gallof
John Andersen, Kelly Anderson, Michael Childress

Peggy Booth

Please see Academic Scholarships page 19

GRADUATION 2001

College Graduates 18th Class



Members of the Class of 2001 participate in the "Graduand's Ceremony." Eighty-eight DVM degrees, two Ph.D. degrees, 11 M.S. degrees and eight Certificates of Residency were awarded during the ceremonies.

Proud parents and family, a new class of veterinarians gratified by their achievements, and a satisfied faculty and staff all gathered to participate in the college's 18th annual "Graduand's Ceremony" on the campus of Virginia Tech.

Eighty-eight DVM degrees, two PhD degrees, 11 M.S. degrees and eight Certificates of Residency were awarded during the ceremony.

Featuring dignitaries from both Virginia Tech and the University of Maryland, the colorful pageant included

the administration of the "Veterinarian's Oath," the "Hooding Ceremony," and the presentation of numerous awards and honors.

Dr. Jerry R. Roberson, a former associate professor in the Department of Please see **Graduates** page 20



Withers Named VMRCVM Outstanding Senior

Timothy Withers

Timothy Tait Withers was named the Virginia-Maryland Regional College of Veterinary Medicine's Outstanding Senior for the 2001 academic year.

Withers, earned an overall quality credit average of 3.55 and was recommended for the award by college faculty members and the Scholarships and Awards Committee.

The Outstanding Senior award is awarded to that senior that has excelled academically, been involved

with extracurricular activities, held leadership positions within the university and community and has contributed to the university's advancement.

Withers' contributions to Virginia Tech began in 1996 when he relocated to the New River Valley to start preliminary work toward his DVM degree. While taking courses he worked as a research liaison and student employee for the Virginia Tech Swine Center. Upon entering veterinary school in 1997 he joined the Christian Veterinary

Fellowship and the Student Chapter of the American Veterinary Medical Association (SAVMA). In March 2000 he served as speaker hospitality and audiovisual coordinator for the national SAVMA meeting which was held at Virginia Tech.

With the Christian Veterinary Fellowship organization Withers has held the position of treasurer, vice president, and president and he also

Please see **Outstanding senior** page 20



Class members received their academic hoods during the "Hooding Ceremony," and were administered the "Veterinarian's oath" and welcomed into the profession by the presidents of the Virginia and Maryland Veterinary Medical Associations during the event. Above left, Mr. John Rocovich, Rector of Virginia Tech's Board of Visitors, participated in the ceremony. Below, Dean Eyre presents Dr. Bob Brown a 2001 John N. Dalton Society Award.



Northern Virginia Veterinarian, Businessman Honored by VMRCVM

A noted veterinarian, veterinary practice management consultant and businessman from Great Falls who has spent more than a decade providing leadership and support for the Virginia-Maryland Regional College of Veterinary Medicine was honored

during the college's 18th annual commencement ceremony.

Dr. Robert C. Brown, owner of Cherrydale Veterinary Clinic in Arlington, was inducted into the college's John N. Dalton Society in

Please see **Dr. Robert C. Brown** page 20

Academic Scholarships: Continued from page 17

AWARD

The Cecil and Shirlee Maxson Scholarship
 The Kirby McCaffrey Memorial Scholarship
 The Marie A. Moore Veterinary Scholarship
 The National Capital Kennel Club Scholarship
 The Florence A. Nocka Endowed Scholarship
 The Nutramax Laboratories Scholarship
 The Pfizer Animal Health Veterinary Scholarship Award
 The Michael Pirrung Scholarship
 The Pudgie Memorial Humane Award
 The Ralston Purina Award for Excellence in Companion Animal Nutrition
 The Roanoke Valley Horseman's Association Award
 The Dr. Jocelyn L. Rodgers Scholarship for Equine Studies
 The Pamela M. Slack Memorial Award for Excellence in Nontraditional Medicine
 The Salisbury Scholarship

The SCAVMA Scholarship
 The Schering-Plough Animal Health Scholarship
 The Second Time Around Award
 The A.C. Spotts III Scholarship
 The John T. Stanley Scholarship
 The James M. Stevens Endowed Scholarship
 The Peter L. Via Scholarship
 The Virginia Federation of Dog Clubs and Breeders Scholarship
 The Virginia Kennel Club Scholarship
 The Virginia Veterinary Medical Association Auxiliary Award
 The Washington Animal Rescue League Scholarship
 The W.R. Winslow Trust Scholarship

RECIPIENT

Peggy Booth
 Matthew Felrice
 Melanie Galanis, Colleen Kelly, Lisa Math
 Heidi Heller, Colleen Kelly, Lisa Math
 Jennifer Cochran, Pamela May
 Jennifer Kakek
 Jennifer Coble
 Marnie Head, Tiffany McCullough
 Lori Donley, Matthew Stachmus

Stephanie Reitz
 Annika Frederickson
 Jennifer Jones

Matthew Felrice
 John Andersen, Barbara Bell, Jennifer Cochran, Kathryn Erswell, Benjamin Haas, Susan Johns, Kathleen Meehan
 Jared Taylor
 Kathryn Erswell, Kimberly Goldman
 Benjamin Haas
 Diane Gildersleeve
 Jared Taylor
 Ryan Jennings
 Colleen Dutson, Annika Frederickson, Jennifer Gieg
 Elaine Kelley
 Sara Chiaramonte, Diane Gildersleeve, Kristina Skelton
 Kristina Skelton
 Ryan Jennings, Anne Van Auken
 Justin Brown, Karen Velguth
 Lisa Baker, Marie Daniels, Natalie Durrett, Shannon Etter, Justin Hill, Jennifer Loffi, Jennifer Lane, Tiffany McCullough, Jessica Myers, Dena Owings, Amy Phillippi, Lindsey Savage, Anne Van Auken



Virginia Tech Vice President for Student Affairs Dr. Lanny Cross participated in the VMRCVM's annual Graduation Ceremony.

Graduates:

continued from page 18

Large Animal Sciences who accepted a position at another university earlier this year, returned to Blacksburg to present the year 2001 address.

Dr. John N. Sexton, president of the Virginia Veterinary Medical Association, administered the "Veterinarian's Oath," and Dr. Michael D. Erskine, president of the Maryland Veterinary Medical Association, welcomed the new veterinarians on behalf of organized veterinary medicine.

The Dr. and Mrs. Dorsey Taylor Mahin Award for Clinical Excellence, an award that honors veterinarians who display skill and compassion in service to animals and people was presented to Dr. Michael Leib, a veterinary gastroenterologist and professor in the Department of Small Animal Clinical Sciences. Dr. Phillip G. Turfle, Jr., the Class of 2001 valedictorian, was presented with the Richard B. Talbot Award, and Dr. Steven R. Escobar was honored as the College's Outstanding Young Alumna for 2001.

Earlier in the day, scores of scholarship donors and student recipients were recognized during the college's annual Awards Luncheon.

Outstanding Senior:

continued from page 18

served as the theology rounds leader from 1998-2000.

In January 2001 Withers traveled with the Christian Veterinary Mission on a three-week international missionary trip to Uzbekistan in Asia. This was Withers' second missionary trip (his first was a 1996 missionary trip working with the Masai people of southern Kenya); this trip to Uzbekistan was his first focused on veterinary medicine.

It was here while Withers was working with Uzbekistan veterinarians, that he received word of receiving the award. A fellow missionary announced the award to Withers and the other missionaries during an evening gathering.

"I had no idea there was such a thing," Withers said upon hearing he had been selected for the award. "To be chosen, what an amazing honor, I can look at my classmates and see five or 10 other people that deserve it."

In addition to his missionary work Withers served as a camp counselor for the Eagle Lake Camp in Colorado Springs, Colorado. Here, during the summers of 1997 and 1998, Withers oversaw a group of nine to 16 years olds training pleasure horses and leading trail rides for other campers. He also led daily Bible studies with the group and was responsible for overseeing the feeding, treatment and medication of the horses used for the "Horse Camp."

Of the two summers spent working at the Eagle Lake Camp, Withers said that it was exciting to see how many of the campers' lives had changed after working with them over the summer months.

"Some come in with no hope," Withers said. "And we're able to share the Gospel with these kids which changes their lives for eternity. It's amazing to see how their lives change from the time they [arrive] until they leave."

In addition to his leadership positions as a missionary and a counselor, Withers also served as his class vice-president, as a member of the student chapter of the American Association of Equine Practitioners and the Food Animal Practitioner's club at Virginia Tech.

He said he has enjoyed being a part of the university, its organizations and meeting all the people he's been involved with.

"Four years have flown by," Withers said. "It's hard to believe they're almost finished. I haven't become nostalgic about my time here yet, but I'm starting to."

After graduation Withers said he's going to spend time with his family on the East Coast while pursuing a career as an associate veterinarian.

Written by Nicholas Louisos, a former intern in the Office of University Relations.

Dr Robert C. Brown:

continued from page 19

recognition of the many contributions he has made to the college. Brown has led the Virginia delegation of the college's advisory board and helped the college earn a pivotal grant from the Pew Charitable Trusts that led to the establishment of its Center for Government and Corporate Veterinary Medicine.

"Dr. Brown has distinguished himself as a forward thinking veterinary practice management specialist who creates and communicates visions of excellence for the profession of veterinary medicine," said Dean Peter Eyre, "He has brought exceptional leadership and concern for human resources to our organizational development activities and we are very grateful for his contributions."

Brown earned his DVM degree from the University of Georgia in 1971. Since then, his 30-year career in veterinary medicine has included professional service as associate of Alexandria Animal Hospital, owner of Charlottesville Animal Hospital, Owner of Great Falls Veterinary Clinic, founding partner and president of the Emergency Veterinary Clinic in Vienna, and owner of Cherrydale Veterinary Clinic in Arlington.

Brown has also established an international veterinary practice management consulting business and been active with a number of national initiatives in the profession of veterinary medicine.

He is associated with a number of veterinary professional societies, including the D.C. Academy of Veterinary Medicine, the Virginia Veterinary Medical Association, the Northern Virginia Veterinary Medical Association, Veterinary Management

Group I, the Virginia Association of the Professions, the Veterinary Hospital Manager's Association, the American Veterinary Medical Association, and the American Animal Hospital Association.

He has also served in advisory roles with the Northern Virginia Community College, the Arlington County Public Schools, the Veterinary Educational Trust, the George Mason University

Business School, the George Washington University Business School, the Arlington Rotary Club, 4-H, and other organizations.

The John N. Dalton Society of the Friends of the Virginia-Maryland Regional College of Veterinary Medicine recognizes those individuals who have performed most distinguished service to the Virginia-Maryland

Regional College of Veterinary Medicine. The society honors the late Virginia Governor John Dalton, who signed the legislation which established the regional veterinary college.

Names in the News

Dr. X.J. Meng, assistant professor, Department of Biomedical Sciences and Pathobiology, was the recipient of the 2001 Pfizer Award for Research Excellence at VMRCVM. Since July 2001, Meng has had nine articles published in peer-reviewed journals on swine, avian and human hepatitis E viruses, porcine reproductive and respiratory syndrome virus, and porcine circovirus (one published in the *Proceedings of the National Academy of Sciences USA*, two in the *Journal of Clinical Microbiology*, and one each in the *Journal of Virology*, *Journal of General Virology*, *Journal of Medical Virology*, *Archives of Virology*, *Journal of Virological Methods*, and *Veterinary Microbiology*). Meng also gave an invited seminar at the U.S. Department of Agriculture's Beltsville Animal Research Center (Beltsville, MD), and an invited symposium lecture at the American Society for Virology's Veterinary Virology Symposium (Madison, WI) on hepatitis E virus zoonosis. Meng was a senior author of four presentations at the 82nd Conference of Research Workers in Animal Diseases (St. Louis, MO) and one presentation at the 20th Annual Meeting of the American Society for Virology (Madison, WI). Meng was recently appointed to the International Committee on Taxonomy of Viruses, Vertebrate Subcommittee. Meng also served on the review panel of the 2001 U.S. Department of Defense's Military Infectious Disease Research Programs.

Dr. David S. Lindsay, professor, Department of Biomedical Sciences and Pathobiology, has recently authored several papers. Those papers were "Prevalence of antibodies to *Neospora caninum* and *Toxoplasma gondii* in gray foxes from South Carolina," "Determination of the activity of pyrantel tartrate against *Sarcocystis neurona*," and "Oocyst excretion in dogs fed mouse brains containing tissue cysts of a cloned line of *Neospora caninum*." Dr. Lindsay worked in cooperation with Alexa C. Rosypal and Anne M. Zajac in authoring "Prevalence of agglutinating antibodies to *Sarcocystis neurona* in racoons, *Procyon lotor*, from the United States." Lindsay also worked with Rosypal on "Dual *Sarcocystis neurona* and *Toxoplasma gondii* infection in a Northern sea otter from Washington State, USA."

Dr. Lindsay also gave a seminar "Recent advances in the epidemiology of *Sarcocystis neurona*" at the Gluck Equine Research Center, at the University of Kentucky in Lexington, Kentucky. Lindsay was an invited panel member on "Bovine Neosporosis (Invisible)" sponsored by Intervet, Kansas City, Missouri. The proceeding will be published in "Bovine Practitioner."

Dr. Thomas Inzana, professor, in Department of Biomedical Sciences and Pathobiology, was recently invited to give two lectures in Denmark. They were entitled, "Molecular investigations of polysaccharide antigens in virulence and pathogenesis of *Actinobacillus pleuropneumoniae*." It was given at the Symposium on Molecular taxonomy and pathogenesis of the bacterial family

Pasteurellaceae, in Copenhagen. The second lecture, "Molecular investigations of polysaccharide antigens in virulence and pathogenesis of *Haemophilus somnus*," was also given at the symposium. Dr. Inzana also published a paper entitled, "Serologic diagnosis of *Actinobacillus pleuropneumoniae* in swine by capsular polysaccharide-biotin/streptavidin-enzyme-linked immunosorbent assay," to be published in the *Journal of Clinical Microbiology*.

Dr. Blair Meldrum, professor in the Department of Biomedical Sciences and Pathobiology, recently attended the 9th International Congress of Toxicology in July in Brisbane, Australia. Dr. Meldrum presented a paper entitled: "Comparative Efficacy of Chelating Agents in the Treatment of Experimental Lead Poisoning in Young Calves."

Dr. Korinn Saker, Department of Large Animal Clinical Sciences, recently received a patent for her research entitled: "Seaweed supplement diet for enhancing immune response in mammals and poultry." Dr. Saker has several papers that she has worked in cooperation with others on that have also been published related to the patent. They are, "Tasco-Forage: II. Monocyte immune cell response and performance of beef steers grazing tall fescue," "Tasco-Forage: III. Influence on performance, monocyte immune response, and carcass characteristics in feedlot-finished steers," "Tasco: Influence of brown seaweed on antioxidants in forages and livestock – A Review," and finally, "Influence of Tasco-Forage on immune response and carcass characteristics of steers grazing endophyte-infected tall fescue – A Review." Dr. Saker also had an invited review related to her research in fatty acids and cancer published.

Dr. Robert A. Martin, professor, Small Animal Clinical Sciences and Veterinary Teaching Hospital Director chaired the Small Animal General Soft Tissue Scientific Session at the annual American College of Veterinary Surgeons' Annual ACVS Symposium in Chicago.

Dr. Marie Suthers-McCabe, extension human-companion animal interaction specialist, has been appointed a board member of the American Association of Human Animal Bond Veterinarians. The AAHABV is an organization devoted to increasing veterinary knowledge and the application of the human/animal bond, according to AAHABV President Dr. Guy Hancock. Suthers-McCabe will serve a one-year term.

Suthers-McCabe also made a presentation on "Animals and the Elderly: The Animal-Human Relationship to Promote Successful Aging" at the Governor's Conference on Aging in Williamsburg. The meeting, themed "Touching Lives with Creative Solutions," was sponsored by the Commonwealth of Virginia's Department for the Aging and Virginia Tech/Virginia Cooperative Extension.

Suthers-McCabe also authored an article entitled "Take One Pet and Call Me in the Morning" which was published in *Generations*, the official publication of the American Society on Aging. The article focused on the therapeutic value of animal interaction.

Suthers-McCabe also presented the keynote

address at a Virginia Cooperative Extension Service sponsored meeting entitled "Hippotherapy: What You Should Know About Therapeutic Horseback Riding" in Clintwood.

She also made presentations on "Animal/Human Violence" and "Animal/Human Interaction" at the Virginia Department of Social Services Adult Services Program meeting in Richmond.

Dr. Ansar Ahmed, professor, Department of Biomedical Sciences and Pathobiology, was a keynote speaker during a conference on "Sex Differences in Immunology and Autoimmunity" sponsored by Harvard University in Boston. Ahmed has also served on a scientific advisory panel co-sponsored by the Harvard Medical School and the Society for Women's Health. The panel's objective was to discuss current research in gender differences of the immune system that affect human health and identify key areas of research.

Dr. Larry Freeman, associate professor, Department of Biomedical Sciences and Pathobiology, presided over the Summer meeting of the American Association of Veterinary Anatomists, at the College of Veterinary Medicine at Tufts University in Boston, Massachusetts. As president, Freeman organized the program session which was themed "Issues in Teaching Veterinary Anatomy." He also co-authored a paper entitled "Conduits Between Anatomical Hierarchies in SNOMED" with Drs. Jeff Wilcke and Penny Livesay. That paper was presented at the meeting by Wilcke.

Dr. David S. Lindsay, has co-authored a textbook on "Feline Clinical Parasitology." Published by the Iowa State University Press, the book provides comprehensive information on all feline parasites, including identification, history, geographic distribution, pathogenesis, epizootiology, zoonosis, diagnosis, treatment, control and prevention.

Dr. Thomas Inzana, professor, Department of Biomedical Sciences and Pathobiology and director of the Center for Molecular Medicine and Infectious Diseases, presented two papers at an international scientific meeting entitled "Molecular taxonomy and pathogenesis of the bacterial family Pasteurellaceae" at the Royal Veterinary and Agricultural University in Copenhagen, Denmark. The papers were "Molecular investigations of polysaccharide antigens in virulence and pathogenesis of *Actinobacillus pleuropneumoniae*" and "Molecular investigations of polysaccharide antigens in virulence and pathogenesis of *Haemophilus somnus*."

An electronic book discussing diseases of cats has been published by **Dr. Gordon R. Carter**, a microbiologist and emeriti professor in the college. "A Concise Guide to Infectious and Parasitic Diseases of Dogs and Cats," which was sponsored by the International Veterinary Information Service (IVIS), can be accessed at http://www.ivis.org/special_books/carter/toc.asp

Dr. Carter has also had a book published by the Iowa State University Press. "Immunology: A Comprehensive Review," was written by Carter and Darla J. Wise, a former Ph.D. student in the college who is now an assistant professor at Concord College in West Virginia.



Lynn Young
Assistant Director
Alumni Relations

ALUMNI NEWS

College of Veterinary Medicine Alumni Events . . .

The College of Veterinary Medicine's first Spring alumni reception and second annual regional alumni event was held in College Park on May 20 at the Avrum Gudelsky Center with around 25 alumni and friends in attendance. About 80 alumni and friends attended the American Veterinary Medical Association Alumni Reception in Boston on July 17.

Please check out the newly revamped ALUMNI link to the VMRCVM web-site. Many of you may see yourselves in the pictures. Also, we have added a link of veterinary hospitals. This link will be helpful for self-initiated student visits for seniors who are on rotation. Please contact Lynn Young if you would like for your hospital to be included.

The next VMRCVM alumni reunion (targeting the Classes of '86, '91, '96) will be held at Hotel Roanoke in February 2002 in conjunction with the VVMA Conference. The NAVC alumni reception was held on January 13 at the Marriott World Center in Orlando and attracted over 80 alumni and friends. (see photo below)

Dr. Doug Graham '98, an Alumni Society Board Member and newly appointed board member of the Virginia Tech Alumni Association talks with Dr. Larry Giebel at the NAVC alumni reception. Dr. Giebel's daughters Erin ('04) and Megan ('05) attend the VMRCVM.



Dr. Mike Erskine (right foreground), a member of the Class of '88, was the first VMRCVM alumnus to ever serve as president of either the Virginia or Maryland Veterinary Medical Association. Here, Erskine visits with colleagues at the 2001 annual meeting of the Maryland Veterinary Medical Association in Ocean City.

Alums Assuming Leadership Roles

When the Virginia Veterinary Medical Association convenes its 108th annual meeting at the historic Hotel Roanoke in February, history will be made in one other way besides the presentation of the organization's inaugural "Virginia Veterinary Conference."

The association will swear in a new slate of officers that will include VMRCVM alumni in the three most senior positions. That means VMRCVM alumni will lead one of the oldest and most distinguished organized veterinary medical associations in the nation for the next three years.

Dr. Lisa Miller, who assumes the presidency at the meeting, earned her DVM degree from the college in 1987 and operates a small animal practice at Augusta Animal Hospital in Staunton.

Dr. Richard "Chip" Godine becomes president-elect. Godine earned his DVM in 1987, serves on the college's new Alumni Society Board, and works at The Animal Hospital of Waynesboro.

Dr. Steve Escobar earned his DVM degree in 1990, was awarded the college's prestigious "Outstanding Young Alumnus Award" in 2000, and owns and practices at the Springfield Veterinary Center in Glen Allen, Virginia.

Last year, Dr. Mike Erskine (Class of '88), became the first VMRCVM alumnus to lead a state veterinary medical association when he spent a year serving as president of the Maryland Veterinary Medical Association. Erskine operates Damascus Equine Associates in Damascus, Maryland.

VMRCVM alumni reunion at Hotel Roanoke

Thursday, February 7

- 6:30-7:30 p.m. President's Reception VVMA/VMRCVM Mentor-Mentees Heavy Hors d'oeuvres Reception
- 7:30-9 p.m. Presentation and discussion on the work of the National Commission on Veterinarian Economic Issues (NCVEI) Howard Rubin, CEO, NCVEI

Friday, February 8

- 4:30-7:30 p.m. Exhibitors - Alumni Society Booth - Silent Auction
- 5:30-7:30 p.m. Job Fair Social
- 7:45 p.m. Announce Winners of Silent Auction
- 8-9 p.m. Comedian
- 9-11 p.m. Alumni Reunion—Hotel Roanoke—Dessert Reception - Shenandoah A Room

Saturday, February 9

- 8:30 a.m. - 5:30 p.m. Job Fair follow-up interviews throughout day
- 9:30 - 11 p.m. Alumni Get Together (On Your Own) - Downtown Roanoke

If you are interested in participating in the Job Fair on Friday, February 8, please contact Lynn Young at youngl@vt.edu or call 540-231-5809.

2002 schedule of events

The 2002 schedule of events for alumni and friends is as follows:

January 12-16	North American Veterinary Conference and VMRCVM Alumni Reception; Orlando, FL – http://flycapers.com/navc.htm
February 8-10	Virginia Veterinary Medical Association and VMRCVM Alumni Reception; Roanoke, VA – http://vavvma.org
February 11-14	Western Veterinary Conference; Las Vegas, NV – http://www.wvc.org
March 27	Colleges of Agriculture and Life Sciences, Natural Resources, and Veterinary Medicine Alumni Reception at 6:00 p.m. at the Alson H. Smith, Jr. Agricultural Research & Extension Center (AREC) in Winchester.
March 28	Colleges of Agriculture and Life Sciences, Natural Resources, and Veterinary Medicine Alumni Reception at 6:00 p.m. at the Natural Resources Building in the Fontaine Research Park in Charlottesville.
April 6	VMRCVM Open House
May 10	VMRCVM Graduation
May 22	3 rd Annual New Student & Alumni Reception in College Park, Maryland
June 21-23	Virginia Veterinary Medical Association; Virginia Beach, VA http://www.vavvma.org
June 23-26	Maryland Veterinary Medical Association; Ocean City, MD http://www.mdvma.org
July 13-17	American Veterinary Medical Association Convention and VMRCVM Alumni Reception; Nashville, TN – http://www.avma.org
December 8-11	American Association Equine Practitioners; Orlando, FL http://www.aaep.org

Each of these events will provide you with the opportunity to interact with other alumni. You will be receiving specific information regarding the times and venues of these events prior to the event.

If you have any questions or comments, contact Assistant Director of Alumni Relations Lynn Young at youngl@vt.edu or 540-231-5809.

Message from the president....



Julie Holland

Thanks to some hardworking alumni and our wonderful assistant director, Lynn Young, the alumni society is continuing to gain momentum. If you have not attended any events, mark your calendar! We are focusing our exposure on the national meetings, especially those in the east, as well as working closely with the MVMA and VVMA to integrate alumni activities with their functions. Some other events, such as the mentor program at the vet school, are also supported. Fresh ideas are welcome, as we grow into our role as a social, educational, and networking group. I am enjoying working with a very bright, busy, and dedicated board of directors. Anyone interested in serving on the board should contact Lynn. I encourage you all to drop in on an alumni event. We are building for the future!

Julie Holland, Alumni Society President

Young Earns Virginia Tech Alumni Association Promotion

Lynn Young, former College Alumni Coordinator, has been promoted to Assistant Director of Alumni Relations for the Colleges of Agriculture and Life Sciences, Natural Resources, and Veterinary Medicine. Lynn recently implemented a student ambassador program within the Colleges of Agriculture and Life Sciences and Natural Resources. She hopes to bring the student ambassador program to the VMRCVM. She recently hired an assistant, Jebbie Crowe, to assist her with her responsibilities for the three colleges.

Country Veterinarian Bill Truban Has Served Clients, Commonwealth, and Profession

Dr. Bill Truban looks as natural gazing through a veterinary ophthalmoscope as he does sitting in his stately office, surrounded by keepsakes gleaned from his political career as one of the most powerful figures in Virginia government.

Today, almost a half-century from the day he earned his VMD degree from the University of Pennsylvania, Dr. William Truban still looks after the livestock and the pets and people of the Northern Shenandoah Valley, just as he has since he started Shenandoah Animal Hospital in 1953.



(Above) Dr. Bill Truban takes a reflective moment in front of his Woodstock-based Shenandoah Animal Hospital. (Far left) Dr. Truban evaluates a patient while technicians assist. (left) The license plate framed on a wall in his office speaks of the role he played as a political leader in the Commonwealth of Virginia.

He still takes the occasional call from political leaders seeking his advice and counsel, and he still keeps his eye on the viability of the state's veterinary medical system and healthcare system, though he no longer serves on the Virginia State Board of Veterinary Medicine or the Board of Health Professions.

But he has reached a point in his career where he can reflect with pride on a life well-lived. He is especially proud that two of his children have followed him into the profession of veterinary medicine. Dr. David Truban, Class of '84, practices in North Carolina. Dr. Tom Truban, Class of '86, has taken over the Shenandoah Animal Hospital.

He is warmed inside, as parents are, by the love and accomplishments of all of his children, and is comforted to know that he has established trusts to finance the college education of every one of his 25 grandchildren.

That sprawling family tree is showcased in a framed document that rests on a wall not far from mementos that speak of his "second" career in Virginia politics. There is the Virginia license plate adorned with the prestigious numeral "3", a group portrait of the 1971 Virginia Senate, the year he was elected, and dozens of commemorative plaques from grateful organizations that commend him for the political leadership he brought to the Commonwealth.

The son of an Italian immigrant whose early death left him fatherless at ten, Truban grew up on a small farm in Garrett County, Maryland. He got where he today through hard work, personal discipline, and a concern for others.

He decided to pursue a career in veterinary medicine while talking with a friend as they returned home after service in World War II, where he served with the U.S. Air Force in the China-Burma-India theatre. That led him first to West Virginia Wesleyan College in

Buchanan, where he met his beloved wife Millie, a nurse whom he married in 1949, and then to veterinary school at the University of Pennsylvania, where

Like a country doctor going off with a black satchel in the middle of the night to deliver a baby, he maintains an abiding concern for his clients.

he graduated in 1953. Following an internship he conducted with a fellow Penn grad on the Eastern Shore, he moved to Woodstock.

"I came here because I liked the

country, I liked the people,” Truban said, recalling a local county agent’s admonishment that no veterinarian yet had been able to make a go of it there. “So I came in and said I’ll try it and I’ve never looked back.”

He remembers the days when veterinarians were paid a quarter to castrate a pig and fifty cents to castrate a calf. “I worked and worked and worked,” he recalled. “That’s just how I got started.”

He remembers dealing with infectious diseases like vesicular stomatitis and hog cholera and bovine tuberculosis. But his veterinary practice has changed with the times, and they now do a lot of companion animal care.

Truban has dealt with generations of clients over the years. Like a country doctor going off with a black satchel in the middle of the night to deliver a baby, he maintains an abiding concern for his clients. He found a benevolent balance between compassion and business a long time ago. “You’ve always got to remember that the little girl whose got the \$300 horse,” he says. “That horse is as important to her as the \$20,000 horse [is to someone else].”

Truban assumed a natural leadership role in community affairs, and in 1970, he was elected to the Virginia Senate where he served for 21 years, including 15 years as Minority Leader and service on the powerful Senate Finance Committee. “The offer only comes once, and I thought it was time for me to do something,” he said of his foray into political life. “It was the greatest experience you could ever have.”

Senator Truban played an important role in organizing the political support that eventually led to the Commonwealth of Virginia’s decision to establish the Virginia-Maryland Regional College of Veterinary Medicine. As a veterinarian, Senator Truban keenly understood the role veterinarians play in a healthy society, and realized that a nationally prominent state like Virginia could not continue to rely on the tenuous availability of educational contracts with other states to meet such an important need. Working closely with the late Virginia Governor John Dalton, former General Assembly Delegate Richard Bagley and others, they laid the political foundations of the school.

In 1994, Truban was honored as one of the first inductees of the college’s “John N. Dalton Society.” Today, Truban is proud of what the VMRCVM has accomplished and sees a bright future ahead. “The school will do all right,” he says. “It will just take some foresight and figuring out what the public needs and what the public wants.”

Truban remains a strong advocate for organized veterinary medicine, and has served as president of the Virginia Veterinary Medical Association and been named their “Virginia Veterinarian of the Year.” He credits organized veterinary medicine with helping the

profession assume the stature it claims today and appreciates the advancements that have been made in the profession over the past fifty years.

Though he frets sometimes that the “soul” of the profession might get lost in the complicated business of modern practice management, he looks back over 50 years of practice with a sense of deep satisfaction. His contact with clients and patients is a kind of touchstone that reminds him of generations of pets and friends, his large and loving family, and life lived in service to others.

WTC Disaster: continued from page 1

1999. Like Disaster Medical Assistance Teams (DMATS) and Disaster Mortuary Operational Response Teams (DMORTs), the VMATs are part of the National Disaster Medical System, which is coordinated by the Department of Health and Human Services.

Helping care for the search-and-rescue dogs at the WTC site was Suthers-McCabe’s first assignment. “I was figuring my first deployment would be a hurricane or a flood,” she muses, “not this. You can’t imagine how difficult this was psychologically. You don’t know unless you’ve been there. It’s all around you—in your peripheral vision, everywhere.”

It was also disorienting, she notes. When team members were trying to locate a dog on the American Express Building site to administer fluids to it, “we were using a map of New York City saying, ‘Where is this building *supposed* to be?’”

For a dozen 12-hour days, Suthers-McCabe and her team tended to the dogs, which had to be examined and washed each time they came off the rubble pile. She also helped look after the mental health of the dogs’ handlers. “I was chosen because of my background on the human-animal bond,” she explains. “They wanted me to be able to lend a listening ear to the dog handlers.” The handlers, she says, usually came directly to them from working the pile and wanted to talk about what they’d seen.

The depressing aura of the site threatened to overwhelm the workers, and Suthers-McCabe says she and her

colleagues worked hard to maintain as much of an upbeat mood as possible. “We put red, white, and blue bandannas on the dogs, and [gave them] a few toys that came in a box of dog supplies. The

Suthers-McCabe says she was glad to be able to use her skills at a time when help was so desperately needed. “It’s something that changes you. It makes you realize, ‘let’s get our priorities straight.’”

handlers loved the toys so much that I sent an e-mail request for more. A box of toys came through a few days later—with a police escort!”

This was just one example McCabe saw of Americans’ generosity. When someone at the site put out a call for booties for the dogs’ paws, she says, “Everyone in the nation, I think, sent booties! We had a mountain of booties. Some were homemade; it was amazing.”

Suthers-McCabe says she was glad to be able to use her skills at a time when help was so desperately needed. “It’s something that changes you. It makes you realize, ‘let’s get our priorities straight.’”

Special thanks to Virginia Tech Magazine Editor Sherri Bithell for her contributions.



DEVELOPMENT

Development Report from the Blacksburg Campus

by E. Frank Pearsall, II, DVM '84

We stand now at the crossroads of incredible change at Virginia Tech and by extension, here in the College. As you know, President Steger has challenged us to become a top 30 Research University by 2010. That means the College needs to set its sights on being a top 10 Veterinary College. That is a big vision, but we have already begun in a very big way. Our College is in the middle of four huge new initiatives, which you have, or will be, reading more about:

1. Carilion Health systems has partnered with the university with a gift of \$50 million to create the Carilion Biomedical Institute.

2. An agreement has just been signed with Wake Forest Medical Center (formerly known as Bowman Gray), the Va Tech College of Engineering, and the VMRCVM to create a School of Biomedical Engineering.

3. The university Food, Nutrition & Health Institute will be located here in the College and headed by Dr. Craig Reed, former head of USDA-APHIS on loan to us for two years.

4. A new private College of Osteopathic Medicine is being built in the university's Corporate Research Center and our college will be providing some of the faculty.

As you can see a lot is happening at your alma mater and we are making an impact. The events of the past year have highlighted, painfully, how inter-related is human health and well being with veterinary medicine. FMD, BSE, Anthrax, and a host of bio-terrorism possibilities, in addition to all of the positive research opportunities in cancer, restorative therapy, and vaccine development have been in the news. Ours is a discipline at the center of much that is defining the future. We will continue to strive to make you, our friends, alumni, and supporters, proud. We thank you for your generous support that has made this all possible.

Gifts of \$10,000 or More Received or Pledged July 1, 2000 – June 30, 2001

Dorothy A. Metcalf – an additional \$348,000 to support the operating accounts and endowments for the Metcalf Professorship in Informatics and the Human-Animal Interaction Fund.

Estate of Florence A. Nocka – final distribution of \$8,087 added to the original bequest of \$60,000 which created an endowment to support advances in feline medicine.

William F. Morrisette – a gift and pledge totaling \$50,000 to establish the Nancy P. Morrisette Memorial Scholarship.

Frances Farr Young – an additional \$50,000 to support the endowment started by Dr. Tyler Young and Mrs. Young providing student support.

Anonymous - \$47,550 from a good friend in Richmond to support a variety of research programs benefiting dogs and cats.

Richard D. Robertson – a \$40,000 match from Philip Morris Companies, Inc. to further support the Roseanne Robertson Memorial Fund for ophthalmology.

W. R. Winslow Residuary Trust – an additional \$35,696 to support student scholarships.

Frank and Helen Spurr – an additional \$25,412 with a \$10,000 Verizon Foundation match to support their research endowment.

Estate of Estelle B. Lewis - \$141,539 to create an endowment for unrestricted support of the College.

James M. and Eleonore E. Stevens – an additional \$105,000 to create a new endowment with an operating fund to assist owners and Good Samaritan animals with Teaching Hospital costs for their pets.

Mildred Corder Trust – an initial distribution of \$102,894 to support the Corder's generous student support endowment.

The Maryland Kennel Club, Inc. – a gift and pledges for a total of \$81,000 to create a student awards and an endowed scholarship.

Development News

The Virginia-Maryland Regional College of Veterinary Medicine at Virginia Tech has an ongoing need for short-term housing near the town bus route for international visitors coming to the college for training and collaboration. If anyone has a townhouse, apartment or condo and would be willing to donate usage or ownership of it, please contact Director of Development Dr. Frank Pearsall at 540-231-4259 or pearsall@vt.edu

National Capital Kennel Club – a gift and pledge totaling \$30,000 to provide student support.

Estate of Patricia B. Stuart – \$29,113 distribution added to the previous bequest of \$1,319,622 for an endowment supporting Equine Studies at the College.

Virginia Beach Kennel Club - \$25,000 to create a research endowment to address canine medical problems.

Samuel H. & Sara L. McGhee - \$24,275 to create the Julie D. McGhee, DVM '00 Equine Endowment.

Robert Lee Beeman - \$24,075 to endow the Carolyn Beeman Memorial Veterinary Scholarship Fund.

Estate of Ellen Clodfelter - \$16,429 for unrestricted support of the College.

Anonymous – a distribution of \$15,000 support for the Molecular Tool Equine Research program.

Marion Bradley Via Foundation – an additional \$12,000 to continue the Peter L. Via scholarship.

Pfizer, Inc. - \$10,900 primarily to support research, but also to support the Alumni Society.

Mary Leach – an additional \$10,262 to add to the Clarence and Gertrude Leach Memorial Scholarship endowment.

Kindy French – an additional \$10,000 to support small animal research by Teaching Hospital faculty.

Craig Reed: continued from page 1

employees to accept temporary appointments with other government and public agencies.

He will assist the university in the establishment of a new Joint Institute for Food, Nutrition and Health. That emerging initiative is designed to unite faculty members in the VMRCVM, the College of Agriculture and Life Sciences, the College of Natural

resources in the food and public health arena in a way which helps our nation deal with the major challenges which lie ahead.”

Reed will also work with the VMRCVM’s Center for Government and Corporate Veterinary Medicine on the campus of the University of Maryland at College Park. He will help train and advise DVM students in the government and corporate veterinary medicine curriculum and help coordinate student training experiences with a variety of federal agencies.

Reed will also work closely with Dr. Lester Crawford, head of the university’s new Center for Food Policy and Nutrition. That northern Virginia-based “think-tank” helps senior government and corporate policy-makers develop rational, science-based food and nutrition policy through research, outreach, public service, teaching and communications. The center was named a “Center of Excellence” in 1999 by the United Nations’ Food & Agriculture Organization.

“As the senior administrator of APHIS, Dr. Reed brings a great deal of stature and credibility to this new role in our organization,” said VMRCVM Dean Peter Eyre. “The leadership, insight and wisdom he brings will enrich the educational opportunities we provide for our students and help us elevate the contributions our college and university is making in food safety, nutrition and public health. We’re tremendously excited about his arrival on campus.”

Administrator of USDA-APHIS since 1998, Reed supervised more than 7500 employees and a billion dollar budget on programs designed to protect American livestock from disease, and plants and crops from biological pests. He was also responsible for regulations

concerning the movement of food, animal and forestry products into foreign markets, and animal welfare laws that pertained to both non-agricultural animals and laboratory animals used in biological research.

Prior to assuming the top post at APHIS, Reed held a dozen other positions in USDA-APHIS, in the USDA’s Food Safety & Inspection Service, and in the USDA’s Agricultural Marketing Service. Most recently, they included Associate Administrator-APHIS; Deputy Administrator, Field Operations, FSIS; and Director, Science Division, Agricultural Marketing Service. His career in federal government has spanned almost three decades.

Earlier in his career, he directed the veterinary technician training program at Macomb Community College in Mt. Clemens, Michigan and established a veterinary technician training program at Wayne State University in Detroit.

Raised on a Michigan farm, Reed earned his BS and DVM degrees from Michigan State University. He conducted a Senior Executive Fellowship at Harvard University’s John F. Kennedy School of Government, and has been awarded a series of commendations for superior performance in government, including the Presidential Rank Award.

Reed is a member of the American Veterinary Medical Association, the Michigan Veterinary Medical Association, the National Association of Federal Veterinarians and many other professional organizations.

“I’m looking forward to helping the university leverage its broad intellectual and programmatic resources in the food and public health arena in a way which helps our nation deal with the major challenges which lie ahead.”

- Dr Craig Reed

Resources and the College of Human Resources and Education in a collaborative center that will conduct research and undertake other programs designed to improve our nation’s food supply and promote public health.

“I’m very excited about this opportunity to affiliate with a university like Virginia Tech and a regional college of veterinary medicine that is respected nationally for its contributions in government and corporate veterinary medicine,” said Reed. “I’m looking forward to helping the university leverage its broad intellectual and programmatic

NEWS FROM THE LEESBURG CAMPUS

Equine Medical Center Dedicates New Equine Treadmill Facility

A dream was realized Friday night when the "James P. Mills Diagnostic Treadmill Building" was recently dedicated at the Marion duPont Scott Equine Medical Center in Leesburg.

In unveiling the 2800 square foot-facility, the EMC took a major step forward in its life as a biomedical research institution and formally introduced exciting new diagnostic capabilities to the regional horse community it serves.

"This is a magnificent facility," said Dr. Peter Eyre, dean of the Virginia-Maryland Regional College of Veterinary Medicine during his keynote address. "Many people have been responsible for getting us to this point."

Money used to construct the new facility was donated by the private sector. The building is named in honor of founding Council Member James P. Mills, a noted horseman and breeder, who was a leader in achieving early diagnostic advances at the Center.



J. William Abel-Smith, son-in-law of the late James P. Mills, who was a founding member of the EMC Council, joins VMRCVM Dean Peter Eyre in unveiling a commemorative plaque denoting the "James P. Mills Diagnostic Treadmill Building" at the Marion duPont Scott Equine Medical Center. Below, Abel-Smith throws the switch to activate the treadmill during its inaugural demonstration.

donors who had helped in the cause to develop "this fabulous new state-of-the-art treadmill."

Similar in concept if not in scale to a human treadmill, the high-speed equine diagnostic unit, capable of operating at speeds up to 60 miles per hour, will be used to evaluate a horse's cardiopulmonary and musculoskeletal functions under vigorous exercise in a controlled environment.

A video endoscope will be used to visually examine a horse's upper airways to diagnose respiratory problems not evident at rest. One of the distinctive features of the James P. Mills Diagnostic Treadmill Building will be the five video cameras positioned on each side, front, back and overhead. The cameras will be used to document and analyze subtle gait problems. Information related to heart, respiration, and gait also will provide useful data for clinical research projects.

"A lot of people have worked very hard to make this new facility a reality, and I think they are going to be very pleased with the opportunities it will create," said Dr. G. Frederick Fregin, the Jean Ellen duPont Shehan Professor and Director of the EMC in comments made after the event. "Opening this facility represents a major step forward for the EMC, the college of veterinary medicine, Virginia Tech, and of course the entire industry we serve."

Mrs. Jean Ellen duPont Shehan,

niece of the center's founding patron, family of the late James P. Mills, and members of the EMC Council joined dozens of others in a festive event that included a reception, formal remarks,

In unveiling the 2800 square foot-facility, the EMC took a major step forward in its life as a biomedical research institution and formally introduced exciting new diagnostic capabilities to the regional horse community it serves.

and a special video presentation which documented the development and construction of the new facility.

During his keynote remarks, Eyre praised Fregin as a great "champion" of the EMC whose special style of leadership has made the partnership between a land-grant university and the private sector so successful.

"That partnership is going to be even more important in the future than it has been in the past," said Eyre, adding that the addition of the treadmill facility will help the EMC emerge as an even more important biomedical research facility during the decade ahead.



Several fund-raising initiatives have been undertaken over the past several years to support the treadmill project.

"I know that as horse owners you know how fortunate we are to have this in our area," Mrs. Shelley Duke, chair of the Equine Medical Center Council, told about 100 donors, friends and staff who gathered for the ceremony. Duke thanked all of the



About 250 guests stopped by to greet friends and colleagues at the Marion duPont Scott Equine Medical Center's hospitality tent during the annual running of the Morven Park Steeplechase Races in October. Under azure blue skies on a crisp and glorious autumn afternoon, guests watched the races, greeted friends and colleagues, and enjoyed fine hospitality in the corporate tents overlooking the racetrack. Left, Work My Nine (#5) jumps a hurdle during the second race, the Dulles Motorcars Steeplechase.

A Splendid Afternoon at the Races.....



(Above) EMC and VMRCVM guests enjoy good food and drink in the EMC tent. (Left) EMC Director of Development Ann Nadjar (right foreground), her husband Jean Pierre (right background) and EMC Surgical Resident Dr. Julie D. McGhee (center background) chat with guest Robert Ladd (right foreground) at the entrance to the EMC tent. In the background, Great Falls residents Susan Reynolds and her son Cameron prepare to visit with guests in the EMC tent.

News and Notables from Leesburg

Dr. Ken Sullins, associate professor of equine surgery, Marion duPont Scott Equine Medical Center, presented "Carbon Dioxide Laser Treatment of Ocular Squamous Cell Carcinoma in 16 Horses," at the annual meeting for the American Society for Lasers in Medicine and Surgery held in New Orleans. He also conducted a one-day course in equine endoscopy at the American Veterinary Medical Association meeting in Boston, and presented "Endoscopically-Guided Laser Debridement of Arytenoid Chondritis In Five Standing Horses" at the World Equine Airway Symposium in Edinburgh, Scotland.

Dr. Nathaniel A. White II, Theodora Ayer Randolph Professor of Surgery, made three presentations at the Maryland Veterinary Medical Association Annual Meeting: "Imaging in Equine Diagnosis;" "Treatment of tendon and ligament injuries;" and "Epidemiology and prognosis for colic." At the Central Veterinary Conference in Kansas City, he was a presenter on seven topics: "Intestinal injury;" "Decision for surgery;" "Intestinal motility;" "Treatment of shock;" "Treatment of medical colic;" "Monitoring horses with colic;" and "Epidemiology of colic."

Dr. G. Frederick Fregin, the Jean Ellen duPont Shehan Professor and director of the Center, has been appointed by the Loudoun County Board of Supervisors to serve a two-year term as the equine industry representative to the Rural Economic Development Council. The council advises local government on planning and development issues.

EMC Welcomes Residents and Interns

The Marion duPont Scott Equine Medical Center welcomed two residents and four interns in July 2001.

Luciana Brandstetter, DVM is completing an internship in equine medicine and surgery at the EMC. She received her DVM from the College of Veterinary Medicine, Federal University of Goias, Brazil, March 1997. She served an externship at Auburn University in March 2000.

Paula de Mattos Guttman, DVM is an intern in equine medicine and surgery. Dr. Guttman received her DVM from the College of Veterinary Medicine, Universidade Federal Fluminense, Rio de Janeiro, Brazil, September 1999. She served an externship at the EMC in September of 2000.

Bettina Dunkel, DVM joined the EMC staff as an intern in equine medicine and surgery. She received her DVM from the College of Veterinary Medicine, University of Berlin, January 2000. She served an externship at EMC in May 2000 and recently completed a three month fellowship at Tufts University.

Richard Hepburn, BVSc, MRCVS joined the EMC staff as a resident in equine medicine. He received his Bachelor of Veterinary Science from the College of Veterinary Science, University of Liverpool, England, July 1997. Prior to joining the EMC staff, he was employed at a five veterinarian equine practice in Hamilton, New Zealand.

Jane Lindop, DVM, an intern in equine medicine and surgery, received her BVMS from the Royal (Dick) School of Veterinary Studies, Edinburgh, Scotland, June, 2001 and served an externship at the EMC in August 2000.

Julie McGhee, DVM has joined the EMC staff as a resident in equine surgery. She received her DVM from Virginia-Maryland Regional College of Veterinary Medicine, May of 2000 and served an externship at the EMC in 1999.



Founding faculty members at the Equine Medical Center were recently honored during a reception and dinner held at the home of EMC Council Chair Shelley Duke. From left, Dr. G. Frederick Fregin, the Jean Ellen duPont Shehan Professor and Director; Dr. Michael Murray, the Adelaide C. Riggs Professor of Equine Medicine; Dr. Martin Furr, associate professor, internal medicine; Dr. Ken Sullins, associate professor, surgery; VMRCVM Dean Peter Eyre; Mr. Richard Gargagliano, hospital administrator; and Dr. Nat White, Theodora Ayer Randolph Professor of Equine Surgery.

EMC Continues “Tuesday Talks” Community Education Series

The Equine Medical Center will host four “Tuesday Talk” sessions this winter during its annual community education series. At each session, a VMRCVM faculty member makes a presentation to horse owners, trainers, managers and veterinarians invited to gather at the Leesburg campus on relevant topics in veterinary medicine.

This year’s topics will include: “The Human-Equine Bond” by Dr.

Marie Suthers-McCabe; “Equine Laser Surgery” by Dr. Ken Sullins; “Foal Pneumonia: *Rhodococcus equi*” by Dr. Mike Murray, and “Advances in Treatment of Colic” by Dr. Nat White.

Additional information on the Tuesday Talks sessions is posted on the Equine Medical Center’s web page at www.equinemedicalcenter.net under the link “Educational Opportunities.”



Students come from all over the world to train at the Marion duPont Scott Equine Medical Center. Below, several interns and residents observe as Dr. Michael Murray, the Adelaide C. Riggs Professor of Equine Medicine, evaluates a patient during morning rounds at the Equine Medical Center. (Left to right) Murray, EMC Resident Dr. Richard Hepburn (England); EMC Intern Dr. Bettina Dunkel (Germany); and visiting international student Theresa Timmer from Murdoch University in Perth, Western Australia.



Dr. Ken Sullins, associate professor, conducts an endoscopic laser procedure on a patient in the Equine Medical Center.

Laser Surgery is Increasingly Popular Alternative at Equine Medical Center

Laser surgery has been in use for equine patients at the Equine Medical Center since 1991, and in the past year new techniques have come into use for bladder stone removal and arytenoid cartilage surgery. Dr. Kenneth E. Sullins has pioneered the laser program at the Equine Medical Center, and for the past decade he has been developing improved laser techniques through his research.

The word laser stands for Light Amplification by Stimulated Emission of Radiation. Lasers create light beams of varied wavelengths and concentrations. Depending on their focus, the light beams can be used to make incisions and evaporate or cauterize tissue.

As in human medicine, many surgeries that previously required large incisions and general anesthesia now can be done endoscopically with the use of lasers while an equine patient is sedated and standing. One of the newest procedures in use at the

EMC employs a recently-acquired pulsed dye laser to endoscopically disintegrate bladder stones via endoscopy through the horse's urethra. Laser lithotripsy shortens recovery time to two to five days rather than four to six weeks' time required to heal an incision following conventional surgery on the bladder or a urethrostomy. The pulsed dye laser that is used poses little danger to surrounding tissue and is effective at breaking up the calcium carbonate stones so that they may be flushed out of the horse's bladder through the urethra. This procedure is done most efficiently while the horse is under general anesthesia.

Another recently developed technique treats early-stage arytenoid chondritis (inflammation of the arytenoid cartilage in the throat) which interferes with the horse's airflow and breathing during exercise. The arytenoid opens as a horse inhales but does not open properly if inflamed. In later stages of the disease, a granulating

mass may form and completely obstruct breathing. With traditional surgery, the patient faces a long recovery and often is unable to resume a career where maximum airflow is essential to doing his job as a race or performance horse. Dr. Sullins' laser procedure is done while the horse is standing. A videoendoscope inserted through the patient's nose allows the surgeon to view the throat while a small incision is made in the throat for a diode laser. The diode laser then vaporizes any mass and infected areas, but leaves the underlying structure of the cartilage intact so that the horse retains the possibility of resuming his career.

In the future, Dr. Sullins would like to see the hospital acquire use of a holmium YAG laser for orthopedic procedures such as arthrodysis of the distal tarsal joints for horses with bone spavin. A research project is being considered that would compare the responses (outcomes) to such procedures done by various lasers.

Sullins also looks forward to using the Equine Medical Center's new high-speed treadmill to conduct research on varying upper airway procedures. "Currently there are several ways to remove the vocal fold if it obstructs maximal respiration," he said. "Using the treadmill allows research to be done in a controlled environment to evaluate which procedures are most effective."

Laser use in veterinary medicine is expanding. In 2000, 2001 and 2002, Dr. Sullins served as chairman for laser programs for the American College of Veterinary Surgeons. He presented laser surgery short courses at each of the ACVS annual meetings for equine and small animal veterinarians.

EMC, Havemeyer Foundation Present Equine Infectious Disease Symposium

About 50 veterinarians, horse owners, and farm managers, attended a two-day symposium on equine infectious diseases held at the Loudoun Hospital Center in Leesburg.

"We were very pleased to work with the Havemeyer Foundation on this symposium," said Dr. G. Frederick Fregin, the Jean Ellen duPont Shehan Professor and Director of the EMC. "Providing useful information about equine disease conditions to practitioners

and horse owners is an important part of our outreach efforts."

The Dorothy Russell Havemeyer Foundation and the EMC collaborated on the two-day symposium, which focused on Equine Herpesvirus, *Streptococcus Equi*, *Rhodococcus Equi*, and Influenza.

Speakers included Dr. Melissa Hines of Washington State University in Pullman, Washington; Dr. Rob Holland of Lexington, Kentucky; and Drs. Jenny Mumford and Richard Newton, both members of the Epidemiology Unit of

the Animal Health Trust in the United Kingdom.

Speakers shared current information concerning the description of the diseases, clinical signs, epidemiology and vaccinations.

A scientific presentation was offered during the first day for equine practitioners. The topics were treated in a more general way for horse owners and farm managers, which attended the second day.

EMC Council Member Beverly R. Steinman; Dr. Nat White, Theodora Ayer Randolph Professor of Surgery; and EMC Council Chairperson Shelley Duke were among the group gathered at the Equine Medical Center's hospitality tent at Glenwood Park for the Middleburg Spring Races.



Emergency Caseload at Equine Medical Center Has Tripled Since 1996

The Marion duPont Scott Equine Medical Center is a referral hospital offering 24-hour emergency service to ill and injured horses throughout the mid-Atlantic region. Since 1996, the number of emergency cases admitted at the Center has tripled. From July 2000 through June 2001, 741 horses were admitted as emergency cases compared to 249 during that time six years ago, accounting for an increase of 198% over six years. The majority of these patients were received after regular hospital hours, during the evening or weekend, accounting for 63% of the emergency caseload.

"Our staff gives more than 100% to provide compassionate quality care to all our patients," said EMC Director Dr. Fred Fregin. "They work grueling hours, sometimes in the middle of the night, to save the lives of critically ill or injured horses. As our caseload has climbed continuously over the past six years, I applaud our staff for their hard work. It is vital that we increase staffing to accommodate the needs of the region's equine community."

Encouraging Others to Give, Irwin Uran Makes Generous Contribution to the Equine Medical Center

Mr. Irwin W. Uran generously made a donation of \$250,000 to the Marion duPont Scott Equine Medical Center in April 2001. Mr. Uran specified that his gift was given "for further development, improvement, upgrading, and training at the Equine Medical Center."

A former Leesburg resident, Mr. Uran has provided significant programmatic support to the Equine Medical Center over the past several years. In making recent contributions, he has asked that his gifts receive publicity in order to encourage others to support the hospital's endeavors.

"The impact of Mr. Uran's gifts has touched many lives," said Dr. Fred Fregin, Jean Ellen Shehan Professor and Director of the Equine Medical Center. "In the past, his contributions have helped us provide 24-hour-a-day service to thousands of sick and injured horses and helped support the hospital's dramatic 198% increase in emergency caseload over the past six years. We are deeply appreciative of Mr. Uran's most recent gift which already has enabled us

to provide our staff with additional advanced on-site training in the use of our new computed radiography system."

Young New Clinical Instructor

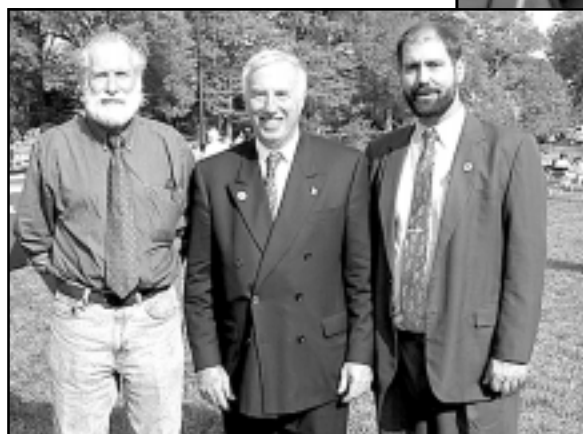
Dr. Byron Young has joined the EMC staff as a full-time clinical instructor in emergency care and equine surgery.

Dr. Young earned his DVM degree from Auburn University School of Veterinary Medicine in 1981.

Dr. Young worked in private practice in southwest Virginia from 1981-1985, worked with the VMRCVM's Veterinary Teaching Hospital in Blacksburg from 1985-1986, and worked in private practice in southern Maryland from 1986-1998. He completed a surgery residency program at the EMC in June 2001.

NEWS FROM THE MARYLAND CAMPUS

Hats off to Drs. Allen Ingling and Guy Hohenhaus



A bizarre and deadly meteorological event brought tragedy and extensive damage to the University of Maryland on September 24th. The unusual tornado caused extensive damage to the Avrum Gudelsky Veterinary Center, which serves as the college's Maryland Campus. During a ceremony held a few weeks later, University of Maryland President Dr. C. D. Mote recognized Drs. Allen Ingling (left) and Guy Hohenhaus (right) for their special contributions during the event and in its aftermath. Mote also thanked and acknowledged the entire campus community during the observance.

photos by A.S. Kane

Congressional Insight Political Education Program

Students interested in pursuing careers in government and corporate veterinary practice recently participated in a workshop designed to help them walk a mile in a politician's shoes.

Thanks to the efforts of Center for Government and Corporate Veterinary Medicine Associate Director Dr. Ted Mashima, the students participated in the American Veterinary Medical Association's "Congressional Insight" program,

Part of the AVMA's Congressional Action Network training program, the CI program is an interactive computer model that simulates a Congressman's two-year term of office.

Teams of up to eight people representing a newly elected member of Congress wrestle with a variety of public policy issues, public appearances, media and fund-raising events, and votes during a simulation designed to illustrate the demands which are placed upon elected

officials who function under intense public scrutiny.

At the end of the simulation, the "composite" congressman faces reelection, which is predicated on the outcomes of the decisions which are made along the two-year term of service.

The workshop was presented by Pamela Abney, Director of the AVMA Congressional Action Network, which is a program administered by the AVMA's Government Relations Division in Washington.

Formalized CGCVM Clerkship Begins

The inaugural CGCVM Clerkship, now required of DVM students who are tracking in Government and Corporate Veterinary Medicine, formally got underway with the class of 2002.

The three-week clerkship provides students with hands-on involvement in the public practice of veterinary medicine, for the purpose of skill building, networking, and understanding/celebrating diversity.

CGCVM faculty serve as mentors, structure opportunities, and provide

debriefing following experiences.

Government/corporate veterinarians in the Washington D. C. metropolitan region, individually selected to match the career focus of the students, serve as advisors and consultants.

Each student is required to complete a "project" during their three-week clerkship, according to Dr. Ted Mashima, associate director of the CGCVM.

For example, Christiana Grim and Elizabeth Embree Schmidt drafted a position statement on "Private Exotic Pet Ownership" for the American Association of Zoo Veterinarians. Their draft is currently being considered by the AAZV's Animal Welfare and Legislative Committee as an official policy statement.

Another student, Nikki Hackendahl made a presentation on "Euthanasia of Aquatic Invertebrates" at the Smithsonian's National Zoo. She examined the policy implications for agencies dealing with animal welfare, including the National Institutes of Health. Hackendahl will make a similar presentation at the annual meeting of the American Association of Zoo Veterinarians in 2002.



On Monday, July 9th, 2001, a celebration was held at the Avrum Guldelsky Veterinary Center for the program and new facilities of the VMRCVM's new Aquatic Pathobiology Center on the UMCP campus. Andrew S. Kane, Center director, led a tour of the wet lab facilities for participants including (below, l to r): J. Glenn Morris, Chair, Epidemiology and Preventive Medicine, UM Baltimore; Gerhardt Schurig, Associate Dean for Research and Graduate Studies, VMRCVM; Renate Reimschuessel, US Food and Drug Administration, Center for Veterinary Medicine; James Wade, Associate Dean, UM College of Agriculture and Natural Resources; Dan Mote, President, UMCP; Robert Summers, Director of Water Management Administration, Maryland Department of the Environment; and Thomas Fretz, Dean, College of Agriculture and Natural Resources, UMCP. At right is Kane with son Collin, age two. The Center's partnerships with the Food and Drug Administration, the VMRCVM, and the Maryland Department of the Environment support ongoing research in the Center.

College Park Dedicates New Aquatic Pathobiology Center

Researchers at the Aquatic Pathobiology Center have a new home at the Avrum Guldelsky Veterinary Center in College Park, which serves as the VMRCVM's Maryland campus. Their focus: environmental toxicology, pathology, and the husbandry of fish and other aquatic and marine organisms.

The center's focus on fish is an obvious one, considering the center's proximity to the Chesapeake Bay. Crabs, rockfish, and other bay residents support a local community of watermen and draw thousands of tourists to Maryland beaches each year.

Other aquatic species provide good human disease models for medical research. And many, like the tiny killifish, serve as environmental "sentinels" in the bay and elsewhere, responding to even the slightest changes in their habitat.

"The Aquatic Pathobiology Center provides students and faculty with a unique opportunity to conduct a wide array of basic and applied research on aquatic animals in state-of-the-art

facilities," says director Dr. Andrew Kane.

The 4,000-square-foot center, which receives support from the College of Agriculture and Natural Resources, the University of Maryland School of Medicine, and the VMRCVM, relocated from the medical school in 2000 and became fully functional last year.

Current research projects focus on such diverse subjects as the effects of nutrient runoff on the presence, growth, and virulence of fish pathogens; the relationship between fish skin ulcers and such microorganisms as bacteria, fungi, viruses, and *Pfiesteria*; quantification of behavioral changes due to various environmental stressors; and the metabolism and analysis of antimicrobial drugs for aquaculture species.

What makes this work different from much other animal research, according to Kane, is its focus on endpoints that involve an integration of cellular, tissue-level, and whole-animal responses. "The relationship between molecular changes and the animal as a whole is often unclear," he explains. "And the effects

seen in the laboratory rarely mimic real-world field events. We're trying to clarify and quantify these links."

To this end, faculty and students collaborate with and receive support from numerous federal, state, and private organizations, including the U.S. Environmental Protection Agency; U.S. Food and Drug Administration; Smithsonian Institution; Maryland Departments of Agriculture, Natural Resources, and the Environment; and National Aquarium in Baltimore.

In addition, researchers from the Blacksburg campus, including noted aquatic veterinarian Dr. Stephen Smith, who operates a major aquatic research program on the VMRCVM's Virginia Tech campus, make the VMRCVM a winning aquatic/environmental research team.

They and other center partners are united by an underlying goal: to conduct research that supports the health of fish—especially aquacultured species and fauna of the Chesapeake Bay.

Pam Townsend/UMCP



Dr. Todd Henderson

Henderson, Nutramax Support Key for CGCVM

Dr. Todd Henderson is committed to advancing the profession of veterinary medicine.

One of the ways that Henderson, Vice President of Nutramax Laboratories in Edgewood, Maryland, is doing that is through his work with the VMRCVM's

Center for Government and Corporate Veterinary Medicine (CGCVM). Henderson serves as an adjunct professor on the VMRCVM-College Park campus.

Creating relationships between the business sector and academia is one of the ways in which the CGCVM seeks to train veterinarians for 21st century service, according to Dr. Ted Mashima, associate director for the CGCVM.

Henderson has lectured in "Veterinary Medicine: Options and Opportunities at the University of Maryland," a pre-veterinary class Mashima teaches at UMCP.

He also hosted a tour of Nutramax Laboratories for students enrolled in the VMRCVM Summer Fellowship Program in Science Technology and Public Policy Issues in Veterinary Medicine. Those

students and several others also had an opportunity to watch a Baltimore Orioles baseball game in the Nutramax corporate skybox, thanks to Henderson.

Henderson also hosted a clerkship opportunity at Nutramax for fourth-year student Jen Kakel and will serve on the interview team which evaluates Maryland-based DVM candidates for admission.

"We're extremely grateful to Dr. Henderson and to Nutramax for the support they are providing for our programs," said Dr. Mashima. "The opportunities they bring to the table really help us provide excellence in our programs."

Henderson earned an undergraduate degree from UMCP and earned his DVM from Mississippi State University.

Charter EPI-resident Getting it Done, Creating Opportunities

The first veterinarian to complete the applied veterinary epidemiology residency on the VMRCVM's College Park Campus is making important contributions to the profession and creating educational opportunities for others.

Dr. Dominic Travis, who serves as Veterinary Epidemiologist at Chicago's noted Lincoln Park Zoo, was honored with a "Presidential Service Award" at the annual meeting of the American Association of Zoo Veterinarians in Orlando.

In conjunction with the Centers for Disease Control in Atlanta, Travis set up a West Nile Virus Surveillance project in zoos.

Travis is also working with Dr. Daniela Gera, a first-year applied veterinary epidemiology resident on the College Park campus, on an exciting project in Africa.

Working through the Lincoln Park Zoo's Davee Center for Veterinary Epidemiology, Gera will do her master's thesis in conjunction with the famed Mountain Gorilla Veterinary Project (MGVP).

Founded in 1985 by Dr. Dian Fossey and made famous through the movie "Gorillas in the Mist," the MGVP seeks to provide care for the mountain gorillas of Uganda, Rwanda, and the Democratic Republic of the Congo.

The Davee Center's work will involve doing a retrospective study of MGVP medical records in order to identify risk factors for disease and mortality, serve on the emergency response team that would be flown to

Africa to fight serious disease outbreaks, and help develop a preventive health program for people and livestock in villages surrounding the gorilla habitat. People and livestock are believed to play a role in passing diseases on to the gorillas.

Enhanced Pre-Vet Course Offered at UMCP

The profile of veterinary medicine and the Virginia-Maryland Regional College of Veterinary Medicine is being raised among undergraduates at the University of Maryland at College Park.

A pre-veterinary course, "Veterinary Medicine: Options and Opportunities at the University of Maryland" is being offered to undergraduates.

Led by Dr. Ted Mashima, 20 veterinarians, two veterinary students, and three support professionals addressed the students, providing exposure to the many different ways in which contemporary veterinary medicine serves society.

The one-class elective capped at 30 undergraduates is designed to introduce them to available career options in veterinary medicine and assist them with the veterinary admissions process.

The course is divided into three sections, according to Mashima. One provides an overview of the veterinary school application process. A second section explores career opportunities for people possessing a DVM degree. The remaining section focuses on helping students strengthen their skills in interviewing and documenting their interest and experience in veterinary medicine.

Educational requirements, salaries, necessary skills, and job outlook are also discussed.

News and Notables From College Park

Dr. Siba Samal has received a two-year \$228,000 grant from USDA's National Research Initiative Competitive Grants Program. The grant will support work designed to develop a recombinant Newcastle Disease Virus vaccine which is also protective against Infectious Bronchitis Virus in poultry. Newcastle disease is one of the most infectious poultry diseases in the world and Infectious Bronchitis Virus is the most common respiratory disease affecting poultry in the United States in recent years. Dr. Samal also made two presentations on the Newcastle Disease Virus at the Conference of Research Workers in Animal Diseases meeting recently held in St. Louis, Missouri.

Dr. Bettie K. Walters attended the "Preparing the Veterinary Profession for Corporate and Trade issues in the Americas: Proceedings of a Conference on Syngenerism and Globalization" in Santiago, Chile. This conference was attended by government officials, academicians, and industry representatives from North and South America. The purpose was to discuss strategies for assuring that veterinary students are prepared both academically and socially to be participants in international and global veterinary medicine. This meeting helped to set the agenda for the International Veterinary Medicine course Dr. Walters is teaching to third year veterinary students during Spring 2002.

Dr. Ted Mashima received a \$24,300 grant from the Morris Animal Foundation to support a project entitled, "Maximizing the Value of Population Health Monitoring Data Collected by the Mountain Gorilla Veterinary Project." This is a joint project with Lincoln Park Zoo, the Baltimore Zoo, and the VMRCVM. Dominic Travis, DVM, MS, Veterinary Epidemiologist, Lincoln Park Zoo, who conducted a residency in epidemiology in the VMRCVM, is the principle investigator. Some of the resources will be used to support Dr. Daniela Gera, an epidemiology resident currently working with the program at College Park.

Dr. Nathaniel Tablante has developed a "Web-Based Biosecurity Training Program for the Poultry Industry" in collaboration with colleagues at the University of Maryland at College Park. The poultry biosecurity program is designed to serve as a quick, convenient, timely, and practical biosecurity training module for poultry industry personnel through a web-based distance learning environment.

Dr. Robert Heckert has been seconded by the University of Maryland at College Park to work with the United States Department of Agriculture's Agriculture Research Services as the National Program Leader for Animal Health. In that position, Heckert will oversee animal health related research activities at various ARS laboratories and installations. He will still spend about 10% of his time at the University of Maryland advising students, overseeing sponsored research, and linking the department to USDA research activities.

Dr. Sarah A. Lister, director of Congressional Affairs for the Washington D.C. based American Public Health Association, has been named an adjunct professor in the Virginia-Maryland Regional College of Veterinary Medicine's College Park campus. Lister, who has worked with the college's Summer Fellowship Program in Science, Technology, and Public Policy Issues in Veterinary Medicine, will work with the college's Center for Government and Corporate Veterinary Medicine.

DVM students Christiana Grim and Elizabeth Embree-Schmidt were on Capitol Hill with Center for Government and Corporate Veterinary Medicine Associate Director Dr. Ted Mashima as part of a fourth-year clerkship when they spotted Senator Ted Kennedy walking his Portuguese Water Dog "Splash" on the steps of the Capitol. Mashima took the opportunity to introduce the students as "a couple of the veterinary profession's future leaders." Kennedy, who spoke during the AVMA meeting in Boston last Summer, took some time to speak with the group about the importance of the veterinary profession helping protect the United States from bio-terrorism.





Dr. Andy Kane, who directs the new Aquatic Pathobiology Center at the Avrum Gudelsky Veterinary Center, observes some moles swimming in an aquarium. The 4,000 square foot center was recently dedicated during a ceremony at the University of Maryland at College Park. See story on page 34.

Maryland Resident Earns Conservation Scholarship

Third-year Epidemiology Resident Patricia R. Bright was named one of ten national winners in the first annual Budweiser Conservation Scholarship Program, a new program sponsored by Anheuser-Busch and the National Fish and Wildlife Foundation.

The Budweiser Conservation Scholarship Program, which carries a \$10,000 prize, is a competitive scholarship program designed to support and promote innovative research or study that responds to significant challenges in fish, wildlife, and plant conservation in the United States.

“The Budweiser Conservation Scholarship Program was created to help prepare the next generation of serious conservationists, and the individuals selected this year are working towards making a difference by carrying on the work that we feel is so vital for all generations to come,” said John Berry, Executive Director of the National Fish and Wildlife Foundation.

Over 200 applications were received from over 90 different colleges and universities in 41 states. The funding will help Bright pursue her work in the development a “Disease Model for Integration into Population Viability Analysis (PVA).”

Wildlife populations are vulnerable to multiple demographic, environmental, genetic and disease threats. Bright proposes to develop an improved methodology for modeling threats to wildlife by combining aspects of epidemiological and population biology modeling with Population Viability Analysis.

Creating a better understanding of how disease affects wildlife populations can help officials development better regulatory procedures.

Winners were featured in a full-page ad which ran nationally in USA Today.



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