VIRGINIA MARYLAND
Virginia-Maryland Regional College of Veterinary Medicine
Winter - Spring 2003

Dr. X. J. Meng (left), assistant professor, Department of Biomedical Sciences and Pathobiology, and Ph.D. student Martijn Fenaux evaluate a cultured virus in a laboratory in the college's Center for Molecular Medicine and Infectious Diseases. Meng, a physician and Ph.D. virologist, has been awarded three National Institutes of Health grants and a total of about $2 million in funding since establishing his lab at the college in 1999. Meng and colleagues are probing the molecular pathogenesis of human, swine and avian Hepatitis E Virus as well as some other economically significant porcine viruses.

Research Agenda Surging Ahead

Soon after being inaugurated as Virginia Tech's 15th president, Dr. Charles Steger presented his "Top 30" vision to those gathered at the college's 12th Annual Research Conference.

Citing the vast federal research resources available through the National Institutes of Health, Steger challenged VMRCVM faculty members to "turn up the Bunson burners" and earn more federally funded research contracts.

Just two years later, three major NIH grants totaling almost $3 million have been awarded to college scientists. And those NIH grants have anchored impressive overall growth in the college's research program.

Research expenditures grew 22% from 2001 to 2002, according to Dr. Gerhardt Schurig, associate dean for research and graduate studies. The college now has 245 active projects and $14 million of funded research underway in college laboratories.

"Most people know veterinary medicine for clinical care," said VMRCVM Dean Peter Eyre. "But the profession plays an enormous role in public health and biomedical research. And since 9/11, that role is growing exponentially."

Please see **Agenda:** page 35

INSIDE

VMRCVM's Eyre Elected President of North American Association of Veterinary Colleges

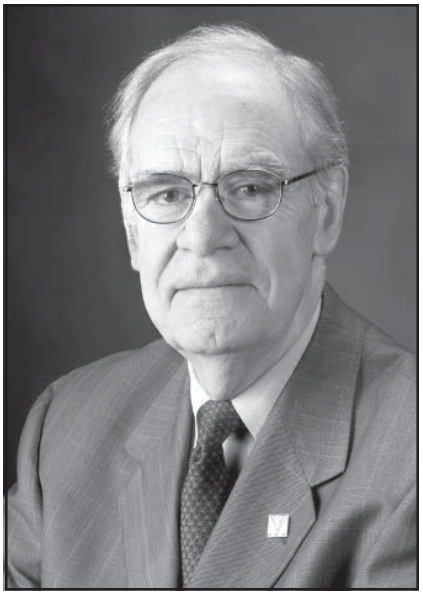
Dean Peter Eyre has been elected president of the Association of American Veterinary Medical Colleges (AAVMC).

He is currently serving one year as president-elect, then will assume leadership of the Washington D.C. based professional association for all North American colleges of veterinary medicine in July, 2003.

"I'm pleased by this honor, and very excited about serving," said Eyre. "This election reflects well upon our college and our university. More important, it positions our college to play an even larger role at the national level than we are already playing."

The AAVMC, the American Veterinary Medical Association and the American Animal Hospital Association have been collaborating for the past five years on programs designed to address the economic challenges facing the veterinary profession.

Please see **Eyre:** page 34



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Dean's Desk

Meandering. The River's Edge

Peter Eyre

Meander: A winding path or course;
a turn or winding of a stream.
Webster's New Collegiate Dictionary

People don't meander any more. Life is over-structured and society is obsessed with "efficiency". Why do we have to be mainstream all the time? No new territory was ever claimed by staying in the boat and being swept along with the current.

The most significant cause of physical and emotional illness is stress. When we travel, we must get from A to B in the straightest possible line and in the shortest possible time. The fastest growing vehicular misdemeanor is "road rage"!

In education, students are required to produce precise, flawless answers to complex and perplexing questions. Students are grade-obsessed; small wonder one of the fastest growing university services is student counseling. Intellectual diversity and personal well-being are being sacrificed in the name of perfection. Someone once said "…for every complex problem there is a simple, easily understood answer, and it's usually wrong!"

We seem unable to exist without instant replay, drive-thru banks, fast-lane grocery checkouts, on-line pharmacies! Think of some of the other expressions that have become part of our everyday vocabulary – deadline, strategic plan, connectivity, high-speed network, focus group, fast food, "must see". We demand continuous communication - fax machines, Email, voice mail. People talk everywhere on their cell phones – in restaurants, theaters, churches, classrooms…and at 70 MPH in their cars. Students chat with each other in class using their laptops or hand-held devices. We cannot survive without continuous gratification.

We seem unable to exist without instant replay, drive-thru banks, fast-lane grocery checkouts, on-line pharmacies! Think of some of the other expressions that have become part of our everyday vocabulary – deadline, strategic plan, connectivity, high-speed network, focus group, fast food, "must see".

The late Charles Kuralt (T.V. Travel Channel personality) said that, because of the interstate highways, we can now travel across the nation, coast to coast, without seeing anything! We are missing life itself. And, we feel guilty if we meander. People think we are laggards!

Yet, life will continue unabated at an ever-increasing pace, and there is no escape until our demise. So, it becomes very important to meander…meditate; sit on the porch; play a game; walk the dog; play with the kids. We are so inured with efficiency that we have almost forgotten to smell the flowers, and the costs to our well-being are staggering. Think about it.

VIRGINIA MARYLAND NEWS BRIEFS

European Economic Community Endorses RB-51

The European Economic Community (ECC) has officially endorsed the RB-51 brucellosis vaccine as the official brucellosis control vaccine.

The vaccine was developed by Associate Dean for Research and Graduate Studies Dr. Gerhardt Schurig and colleagues working in the college's Center for Molecular Medicine and Infectious Diseases.

"EU approval is one of the toughest things to get because of their multi-country research review and political complexity," said Schurig. "We are very pleased about this."

The RB-51 is a genetically modified vaccine that confers immunity while minimizing side effects. The vaccine has become the global "gold standard" in bovine brucellosis control and played a major role in the virtual eradication of the cattle disease in the United States.

Bovine brucellosis, a bacterial disorder caused by the Brucella abortus organism, is largely controlled in the United States and western Europe, yet it remains a significant threat in Africa, the Middle East, Central and South America and other developing areas of the world.

Dr. David Lindsey

Lindsey Earns Pfizer Award

Dr. David Lindsey, professor, Department of Biomedical Sciences and Pathobiology, has been awarded the 2002 Pfizer Animal Health Award for Research Excellence.

The award recognizes veterinary researchers whose work has elevated the scientific stature of veterinary medicine.

Lindsay is a major figure in international parasitology research. Much of his work has involved the examination of the protozoal parasites causing diseases like cryptosporidiosis, coccidiosis infection in pigs, and toxoplasmosis.

More recently, he has been recognized for his work as part of a USDA funded team that made a major breakthrough in the understanding of an economically significant parasitic disease afflicting cattle.

Working in the college's Center for Molecular Medicine and Infectious Disease, Lindsay and colleagues demonstrated that the dog is a "definitive host" for Neospora caninum, a single-celled parasitic organism which causes pregnant cows to abort their fetuses.

He is also working on an improved diagnostic test for Equine Protozoal Myelitis (EPM), a recently identified neurological disorder in horses.

Lindsay worked at Auburn University and the American Parasitology Institute at Beltsville, Maryland prior to joining the Virginia Tech faculty in 1997.

Dr. Ansar Ahmed

New CMMID Director Named

Dr. Ansar Ahmed has been named director of the Center for Molecular Medicine and Infectious Diseases. Ahmed, a molecular immunologist, joined the VMRCVM in 1994.

Ahmed earned a B. Sc. In Chemistry, Botany and Zoology from the Bangalore University in India. He also earned a B.V.Sc. from the University of Agricultural Sciences in Bangalore. Ahmed earned his Ph.D. in Immunology and Immunopathology from the School of Veterinary Studies at Murdoch University in Australia.

Ahmed's research is examining how estrogenic compounds affect immune system function at the cellular and molecular level, and possible connections with the development of autoimmune disorders such as lupus. He also serves on a number of NIH and national review boards.

Veterinary Informatics Laboratory Developing Antimicrobial Drug Resource

The use of antimicrobials in food animal veterinary medicine is widely believed to play a role in the growing antimicrobial resistance problem.

Now, a web-based interactive program designed to help food animal veterinarians select the best antimicrobials in clinical situations is being developed in the college's Veterinary Informatics Laboratory under the leadership of Dr. Jeff Wilcke, who holds the Dorothy A. and Richard G. Metcalf Endowed Professorship in Veterinary Medical Informatics.

The site is designed to provide a readily available and comprehensive source of information for food animal practitioners, said Wilcke.

The program is being operated in conjunction with the Iowa State University and Mississippi State University Colleges of Veterinary Medicine.

Support for the project has been provided by the Academy of Veterinary Consultants, the American Association of Bovine Practitioners, the National Cattleman's Beef Association, the American Association of Swine Veterinarians, the National Pork Board, the American Veterinary Medical Association, and the Food and Drug Administration Center for Veterinary Medicine.

Dr. Tom Inzana

CMMID Scientists to Sequence Bovine Pathogen

Scientists working in the Virginia-Maryland Regional College of Veterinary Medicine's Center for Molecular Medicine and Infectious Diseases have been awarded a $650,000 grant to undertake the first whole bacterial genome sequencing project to be completed at Virginia Tech.

Funded by the United States Department of Agriculture and the National Science Foundation, Dr. Thomas Inzana, Professor, Department of Biomedical Sciences and Pathobiology, Research Scientist Dr. Jane Duncan and graduate student Swamy Siddararamappa will sequence to completion the genome of the bovine pathogen Haemophilus somnus. This sequencing project is being done in collaboration with scientists at The University of Oklahoma Health Science Center's Laboratory for Microbial Genomics, where the initial sequencing was done.

Species of Haemophilus bacteria are very host specific and reside in the upper respiratory tract of many animals and in people. Stress or previous infection seems to play a role in causing the pathogens to invade the lower part of the respiratory tract where they can cause pneumonia or invade the bloodstream and cause systemic disease.

H. somnus is one of the agents that causes the highly infectious respiratory ailment of cattle often referred to as "shipping fever." That disorder is responsible for millions of dollars in lost agricultural productivity, according to Inzana, who led the college's Center for Molecular Medicine and Infectious Diseases from 1998 to 2002.

The work also has important implications from the standpoint of comparative genomics, Inzana said. At the genetic and structural level H. somnus is similar to H. influenzae, a common and important pathogen that affects humans. Comparing the sequence of the H. somnus genome to that of H. influenzae will likely yield information that will help scientists and physicians understand more about the species that infect people.

Once the project is completed and the researchers have a clear understanding of its genetic structure, gene expression in the host can be investigated with the aim of designing more effective vaccines.


Dr. Otto Lanz

Lanz Honored by Auburn

Dr. Otto Lanz, assistant professor, Department of Small Animal Clinical Sciences, has been honored with a Young Achievers award from Auburn University's College of Veterinary Medicine.

The award, based on professional achievement and contributions to society, is presented to select members of the graduating class from 10 years ago.

Lanz supervises the VTH Intensive Care Unit and is the advisor for the Emergency Critical Care Club.

He joined the college in 1998 after performing a residency in small animal surgery with the University of Florida and an internship with Michigan State University.

He is board certified by the American College of Veterinary Surgeons and is a member of the American Association of Veterinary Clinicians and the Veterinary Wound Healing Association.

Waste Processing Project Wrapping Up

Final testing is underway on the establishment of a novel 4,000 square foot organic waste processing facility at Virginia Tech that eliminates the air pollution hazards associated with incineration and minimizes wastestream volume.

Housed at the VMRCVM, the university facility will use an innovative new "dry rendering" technology that has not been used anywhere else in the country.

During the dry rendering process, animal carcasses and bedding are placed in a specially designed chamber, agitated and heated by high temperature, high-pressure steam. Dry rendering transforms the material into sterile liquid and solid components that can be safely disposed of in the sanitary sewer system and in landfills.

Microorganisms naturally present in the animal carcasses are destroyed by the extremely high temperature steam and pressure, thereby "sterilizing " the material in much the same way a medical autoclave is used to purify surgical instruments.

The process is termed "dry rendering" because no additional water beyond that which is naturally present in the carcasses is used during the process. By eliminating the 40-60% water that most animals are comprised of, the wastestream is reduced by approximately half.

The dry rendering process is similar to that which is regularly used in hundreds of rendering facilities across the nation. However, this would be the first time dry rendering has been used to dispose of this type of waste by a laboratory or university. Agriculture Canada, the Canadian ministry equivalent to the United States Department of Agriculture, is currently using the technology at an agricultural facility in Winnipeg, Canada.

Most of the animal carcasses that must be disposed of are cows, horses, sheep, and pigs derived from the university's agricultural herds, as well as mortalities from the VMRCVM's Veterinary Teaching Hospital.

Laboratory animals used in support of university research programs which do not require special medical handling are also included.

University generated regulated medical wastes will not be included in the rendering system; they will continue to be disposed of through licensed waste disposal contractors in accordance with federal guidelines.

A team of four Japanese journalists working for a Japanese lifestyle magazine called "Dancyu" recently visited the Virginia-Maryland Regional College of Veterinary Medicine. The group interviewed Dr. Craig Thatcher, an internationally recognized authority on veterinary nutrition and Head, Department of Large Animal Clinical Sciences. They also interviewed Dr. Marie Suthers-McCabe, extension specialist human/animal interaction about her experiences caring for search & rescue dogs at Ground Zero following the September 11 tragedy. The group was in the United States as guests of the Washington D.C. based Pet Food Institute. Below, the journalists (second, third, fourth and fifth from the right) interview Dr. Thatcher (right foreground). Also pictured, clockwise from right, VMRCVM Dean Peter Eyre, Dr. Suthers-McCabe, and Dale Walden, administrator of the Pet Food Institute's Export Marketing Program.

Genome of Potential Bioterror Agent Sequenced

Scientists in the college's Center for Molecular Medicine and Infectious Diseases have played a key role in a major project undertaken by the Institute for Genomic Research (TIGR) that resulted in the genomic sequencing of *Brucella suis*, a bacterial pathogen and potential bioterrorism agent that could be targeted against humans or livestock.

As part of the research project, TIGR scientists compared *Brucella suis* with the genome of *Brucella mellitensis*, a related species that causes similar "brucellosis" disease in goats rather than swine. Both species also affect humans.

The CIMMID based research team of Drs. Gerhardt Schurig, Stephen Boyle and Nathan Sriranganathan have operated a 20-year old brucellosis research effort that has resulted in the production of a new vaccine against brucellosis, caused by *Brucella abortus*. The researchers are now developing a similar vaccine against *Brucella mellitensis* and *suis*.

Dr. Claire M. Fraser, president and director of TIGR, said: "The *Brucella suis* sequencing project provides important new information about this infectious agent. Genomics has helped us understand more about this pathogen and its closest relatives and defines a new starting point for development of novel methods to diagnose and treat the disease it causes."

Brucella suis is considered to be a potential bioweapon/ bioterror agent. It was selected for "weaponization" in the 1950s because it is highly infectious, debilitates people without usually killing them, and is not transmitted from human to human. Its flu-like disease symptoms make early diagnosis difficult and treating the disease requires prolonged antibiotic therapy.

During the 1950's and 1960's, the U.S. Army had developed artillery shells and bombs armed with *Brucella suis*. But that stockpile was destroyed after the U.S. government halted its biowarfare program in 1969. Other countries also developed Brucella weapons during the Cold War.

Other organizations working with TIGR on the project included the U.S. Department of Agriculture's National Animal Disease Center and the Walter Reed Army Institute of Research.

The *Brucella suis* project was supported by the Defense Advanced Research Projects Agency (DARPA) and by the National Institute of Allergy and Infectious Diseases (NIAID).


Dr. Carl J. Pfeiffer

Pfeiffer Edits Marine Mammal Textbook

Dr. Carl J. Pfeiffer, professor emeritus, Department of Biomedical Sciences and Pathobiology, has edited a textbook entitled "Molecular and Cell Biology of Marine Mammals."

With contributions from 75 authors, the 425-page book is organized into sections on Cetacean Molecular Genetics, Pinniped and Sirenian Molecular Genetics, Advances in the Detection of Marine Mammal diseases, Cellular and Molecular Immunology, and Cell Biology and Ultrastructure.

The text is the first to consolidate current knowledge at both the cellular and molecular level of marine mammals.

"In spite of greatly diminished commercial whaling worldwide, and success in increasing the population of some marine animals such as the California gray whale, the present instability of this moratorium on whaling, the overfishing and pollution of our seas and rivers, huge bycatches of dolphins in fishing gill nets, the collision of boats with whales and manatees, and periodic crises with disease takes a disastrous toll," writes Pfeiffer.

"Thus, there is an urgency as never before in learning more about the biology, disease, and behavior of marine mammals," he said.

Dr. Marion Ehrich

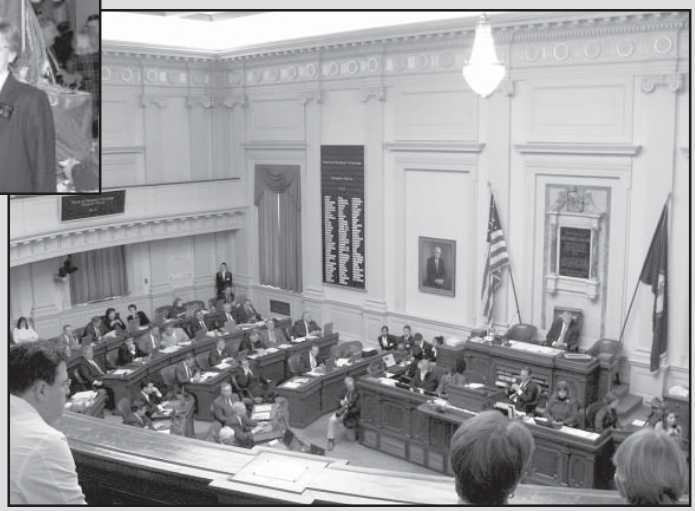
Ehrich to Lead Society of Toxicology

Dr. Marion Ehrich has been elected president of the largest professional association in the world for toxicologists.

Ehrich, a professor of toxicology in the Department of Biomedical Sciences and Pathobiology, begins leading the 5,200 member Society for Toxicology in May, 2003. Toxicology involves the study of the adverse affects of chemicals on living organisms.

"I feel very honored by this," said Ehrich, who co-leads the college's Laboratory for Neurotoxicity Studies. "I also feel a strong sense of responsibility, especially during these times when the threats of bioterrorism and chemical warfare are so real."

The Society for Toxicology includes scientists from academia, government and industry. It operates an array of programs designed to maximize the benefit and the safety of chemicals in society. The society fosters research, develops risk assessment strategies and promotes the development of responsible regulations.



VMRCVM public relations director Jeffrey S. Douglas (left), Virginia Commissioner of Agriculture J. Carlton Courter (center) and Virginia Veterinary Medical Association President Dr. Lisa Miller (Class of '87) pause during a legislative reception sponsored by the VVMA, the Virginia Horse Council and the college at the Old City Hall complex adjacent to the Virginia General Assembly.

Forrester Wins Norden Award

Dr. S. Dru Forrester

Dr. S. Dru Forrester, professor, Department of Small Animal Clinical Sciences, has won the 2002 Carl J. Norden Distinguished Teaching Award.

Forrester, who joined the college in 1990, earned her DVM degree from the Auburn University College of Veterinary Medicine. She conducted internship and residency programs at the Texas A&M University College of Veterinary Medicine.

The Norden award is presented to educators in recognition of their characer and leadership qualities as well as their teaching abilities.

This is the second time Forrester has been honored with the Norden Award. She was also presented with the award for teaching excellence in 1993.

Adoptathon Held

A Family Pet Adoption Day held on the college campus in November was a big success, according to organizers.

More than 40 animals in the custody and care of a variety of area shelter and adoption organizations were up for adoption. Participating organizations included Pound Pals of Radford, Giles Animal Rescue, Floyd County Humane Society, Virginia PAWS (Virginia Partnership for Animal Welfare and Support), Dalmation Rescue of Southwest Virginia, Pulaski County Humane Society and Vet Students with Fosters.

DVM students evaluated the health and condition of participating animals, interviewed prospective owners in an effort to match family lifestyles with animal characteristics, and did microchip ID implants.

Ehrich Presents at Anti-Terrorism Workshop

Dr. Marion Ehrich, professor, Department of Biomedical Sciences and Pathobiology, participated in an Anti-Terrorism Workshop sponsored by the United States Civilian Research and Development Foundation in Washington, D.C.

Ehrich joined a half-dozen colleagues from research centers around the nation on a program entitled "Organophosphate-Induced Delayed Neurotoxicity: Assessment of Human Exposure to Neuropathic Organophosphates."

Ehrich and Dr. Bernie Jortner co-lead the college's Laboratory for Neurotoxicity Studies, considered one of the nation's leading research centers in organophosphates. Widely used in insecticides and agriculture, these compounds are also

Continue next page

Former associate professor Dr. Brian Perry was recently awarded the OBE (Officer of the Order of the British Empire) by Queen Elizabeth for "services to veterinary science in developing countries". Perry and his family pose at Buckingham Palace in London after he was presented the OBE by Prince Charles. Perry left the college to work with the International Laboratory for Research and Development in Nairobi, Kenya.

considered a viable instrument of chemical warfare.

The CRDF was established in 1995 by the U.S. government to assist weapons scientists in the former Soviet Union in finding civilian employment and to help establish relationships with the West.

The organization also seeks to preserve the former Soviet Union's scientific and technological infrastructure.

The CRDF has awarded about $45 million in support through an estimated 1200 different programs, about half of which went to former Soviet weapons researchers.

Dr. Craig Reed (left), visiting professor and head of the university's Food & Nutrition Institute, and Dr. Tom Caruso (right), program development manager for the Corporate Research Center, attended the Fifth Annual Food and Agricultural Science Exhibition" on Capitol Hill in Washington. The theme of the conference was "Agriculture and Food Science in the 21st Century: The Government and University Partnership at Work."

New Interns and Residents Join the College

Seventeen new veterinarians have been hired as residents and interns.

Internships and residencies are advanced clinical/educational programs pursued by DVM's who seek advanced training and eventual board certification by organizations such as the American College of Veterinary Internal Medicine, the American College of Veterinary Surgeons, the American College of Veterinary Radiology, or the American College of Veterinary Ophthalmology and others.

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

Dr. Mark Bobofchak has joined the college as a small animal intern. He received his BA in Biology from Illinois Wesleyan University and his DVM from the University of Illinois in 2002.

Dr. Armando Burgos-Rodriguez, who did undergraduate work at the University of Puerto Rico, received his BS in Agriculture-Animal Science from the University of Tennessee. Dr. Burgos-Rodriguez received his DVM from the University of Missouri in 2002 and is a small animal intern.

Dr. Michael King has joined the college as a small animal intern. He did undergraduate work and received his BVSc from Massey University of New Zealand in 2000. Dr. King completed an internship in private practice and has been in private practice in Auckland, New Zealand.

Dr. Laura Snyder, who received her BS in Molecular Biology from Simmons College in Boston, has joined the college as a small animal intern. Dr. Snyder received her DVM from Tufts University in 2002.

Dr. Patricia Sura will be joining the college as a small animal intern. She received her BS in Biology from Fairfield University in Connecticut and an MS in Medical Microbiology and Immunology from Georgetown University. Dr. Sura earned her DVM from the VMRCVM in 2002.

Dr. Terri Dudis is a new resident/graduate student in the field of human-companion animal interaction. She earned her DVM from the VMRCVM in 2000 and has been in private practice in northern Virginia.

Dr. Robert Hancock has joined the college as a new resident/graduate student in small animal surgery. He received his DVM from Mississippi State University and has completed a small animal internship at the University of Missouri.

Dr. Priti Karnik, who earned her BS in Animal Science from Virginia Tech, had entered the college as a new resident/graduate student in small animal surgery. She received her DVM from Ross University and has completed a small animal internship at the VMRCVM.

Dr. Kathleen Sennello is a new resident/graduate student in small animal medicine. She received her BS in Animal Science and her DVM from the University of Illinois. Dr. Sennello spent two years in private practice and has completed a small animal internship at the University of Illinois.

Dr. Tonya Tromblee has joined the college as a new resident/graduate student in radiology. She received her BS in Physiology, did graduate work, and received her DVM from Oklahoma State University. Dr. Tromblee has completed a small animal internship at Texas A&M University.

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

Dr. Ondrej Becvar has joined the college as a Food Animal Production Management Medicine intern. He received his DVM from the University of Veterinary and Pharmaceutical Science, Brno, Czech Republic.

Dr. Joanne Isakow has joined the college as a Large Animal Medicine – Equine Production Management Medicine intern. She attended the University of Saskatchewan as an undergraduate with a major in Physiology and received her DVM from Western College of Veterinary Medicine in 2002.

Dr. Katherine Wilson has joined the college as a Large Animal Medicine – Equine Production Management Medicine intern. She received her Bachelor of Philosophy, Interdisciplinary Studies from Miami University and earned her DVM from Ohio State University in 2002.

Dr. Jeff Aguillard, who received his BS and MS from McNeese State University, has joined the college as a new resident/graduate student in Theriogenology. He earned his DVM from Louisiana State University School of Veterinary Medicine.

Dr. Sabine Ladd is a resident/graduate student in Large Animal Medicine. She received her BA in Biology/Chemistry from Whitman College and her DVM from Iowa State University.

Dr. Flavia Monteiro is a new resident/graduate student in Food Animal Production Management Medicine. She received her DVM from the Universidade Federal Fluminense and has completed an internship at Rochester Equine.

Dr. Juan Pedraza has joined the college as a new resident/graduate student in Food Animal Production Management Medicine. He received his DVM from Universidade de la Salle, Bogota, Colombia and has completed an internship at the VMRCVM.

Nationally recognized practice management consultant Fritz Wood presented morning and afternoon programs on the business and economics of the veterinary profession during the annual Fall meeting of the Virginia Veterinary Medical Association held at the college. The day's events got underway with a Mentor-Mentee Breakfast that paired veterinary students with practitioner mentors.

Tech Presents Major Immunology Conference at Swiss Facility

Dignitaries gathered in front of Tech's Riva San Vitale Center include, from left, Antonio Lanzavecchia, director of the Institute for Research and Biomedicine; Marco Baggiolini, President of the University of Lugano (USY); Virginia Tech Provost Dr. Mark McNamee; Athanasios Moulakis, director of the Tech center, and Dr. Gerhardt Schurig, associate dean for research and graduate studies in the VMRCVM.

Leading medical researchers from Virginia Tech, Johns Hopkins, Georgetown, and Wake Forest Universities recently convened in Switzerland to meet with European scientists during a three-day immunology conference that was also designed to serve as a blueprint for future international collaborations.

The conference, entitled "Vaccine Technology and Immune Responses," was held at Virginia Tech's Center for European Studies and Architecture at Riva San Vitale on the shores of Lake Lugano.

Scientists from the Center for Molecular Medicine and Infectious Diseases, the Virginia Tech Bioinformatics Institute and senior university officials spent three days sharing scientific presentations and exchanging ideas about ways in which they might forge enduring research partnerships with the Swiss Italian University (USI), the Institute for Research and Biomedicine (IRB) and the biotechnology powerhouse Chiron.

"We now have a situation where Virginia Tech, working through its European facilities, can leverage its biomedical expertise in partnership with other major American universities in a rapidly emerging global research effort."

- Dr. Gerhardt Schurig

"This was truly an event of lasting significance for Virginia Tech," said University Provost and Vice President for Academic Affairs Dr. Mark McNamee. "Not only did this conference illustrate the global significance of what we are doing in the biomedical sciences, it demonstrated the value and the promise of the research relationships we are forging with schools like Johns Hopkins, Wake Forest and Georgetown. I think everyone was impressed with the quality of the scholarship and with the robust platform for future collaboration which began to take shape."

Both the timing and the environment are ripe for such collaboration, according to Dr. Gerhardt Schurig, associate dean for research and graduate studies, and architect of the meeting held at the celebrated Virginia Tech facility in the Italian-speaking Swiss Canton of Ticino.

Under the leadership of Dr. Marco Baggiolini, a famed immunologist who made historic advances in understanding the role chemokines play in the immune system, the region known as "The Italian Switzerland" is experiencing something of an academic "renaissance," according to Schurig. Baggiolini helped convince the privately-funded Institute for Research and Biomedicine (IRB) to locate at Bellinzona, just 40 kilometers from Riva San Vitale. Immunologist Antonio Lanzavecchia, who formerly led the prestigious Basel Institute for Immunology and now heads the IRB, worked closely with Schurig in organizing the conference.

"This is a region of Switzerland that is gaining momentum in the biomedical sciences, and in particular, immunology," said Schurig. "We now have a situation where Virginia Tech, working through its European facilities, can leverage its biomedical expertise in partnership with other major American universities in a rapidly emerging global research effort," said Schurig.

After introductory remarks from Baggiolini, Lanzavecchia and Schurig, the three-day conference featured about 20 presentations in the general areas of "Induction of the Immune Response," "Cell Signaling," "Host-Pathogen Interactions," "Vaccine Design," and "Bio-Informatics and Bio-Engineering."

The three-day meeting also included a variety of social events and planning sessions designed to foster strategies for future collaboration. Swiss print and broadcast media covered the conference. Provost McNamee presented summary remarks regarding the future of the emerging collaborations at the conclusion of the meeting.

In addition to University Provost McNamee, several other university officials who are helping lead Virginia Tech's major initiatives in human health research served as members of the Tech delegation. Dr. James Bohland, senior fellow for biomedical engineering and health related projects and director, School for Public and International Affairs; Dr. James Blair, associate provost for research and interdisciplinary programs; and Dr. Neil Castagnoli, the Harvey W. Peters Professor of Chemistry, all participated in the conference. Athanasios Moulakis, who directs the Virginia Tech Center for European Studies in Architecture, also

Please see **Immunology:** page 35

Center for Comparative Oncology

Carol Loughead, regional director of the American Cancer Society, presented Dr. Robertson with the American Cancer Society's "Regional Award of Merit" during their annual recognition program. Robertson also accepted a "Regional "Collaboration Award" on behalf of Virginia Tech.

Cancer Research Center Created in Veterinary College

Virginia Tech's march into life sciences research has taken a major step forward with the establishment of a new cancer research center on the VMRCVM's Blacksburg campus.

Led by veterinary pathologist Dr. John Robertson, the Center for Comparative Oncology (CeCO) will serve as a unifying resource for the 40 Virginia Tech professors that are currently engaged in some form of cancer research.

"We need to identify new financial resources to fund the Center, and attract the people who are dedicated to fighting this horrendous disease."

- Dr. John Robertson

Animals, like people, are living longer these days as a result of advancements in health care, Robertson said, and cancer more commonly affects elderly populations. He noted that significant improvements in cancer diagnostics have increased the oncology caseload in many community veterinary practices.

"We are now beginning to appreciate just how common cancer is in our pets," said Robertson, noting that studies indicate about half of animals older than ten will develop a tumor and have clinical problems associated with it. "Looking at all diseases that affect dogs and cats, about 25% of all pets will die from cancer."

Comparative oncology is a promising foray into organized cancer research at Tech because of similarities in the way tumors occur and develop in both people and animals, Robertson said. Information developed through cancer research in one species is often useful in diagnosing and treating the disease in another.

"We now understand that cancer is fundamentally caused by the mutation of critical genes that control cell growth, division and differentiation," said Robertson, director of CeCO and a professor in the Department of Biomedical Sciences and Pathobiology. "When cells express these mutations, they begin to proliferate in an uncontrolled manner, which is the hallmark of cancer."

A number of researchers on the Virginia Tech campus already are investigating novel methods for the detection of cancer using lasers, quantifying fundamental genetic changes in normal and neoplastic cells, studying effects of diet on the development of breast cancer, and seeking an understanding of how tumors grow new blood vessels, Robertson said.

Several VMRCVM investigators have recently begun a study of malignant lymphoma in dogs, which may develop insights for the human form of the disease, he said.

For the past several years, Robertson has been working to establish working partnerships with the Carilion Cancer Center of Western Virginia, the Carilion Biomedical Institute, the American Cancer Society and cancer centers at Wake Forest, the University of Virginia, the Medical College of Virginia and Georgetown University.

"The major goal we have right now is the identification of new resources to build this program," said Robertson. While funding to support major initiatives in the short term remains unidentified, he said, future goals include expanding clinical facilities and recruiting a team of clinical oncologists to accommodate an expected increase in companion animal cancer patients.

"We know that it will take five to 10 years for us to realize the full potential of the Center for Comparative Oncology," said Robertson, who spent 13 years in corporate pharmaceutical research prior to joining the faculty in 1989. "We need to identify new financial resources to fund the Center, and attract the people who are dedicated to fighting this horrendous disease. I'm very committed to making this happen."

VMRCVM Dean Peter Eyre said that the creation of the Center is a natural step for the College to take in light of Virginia Tech's new goal of achieving Research 30 status by the year 2010 and its emerging initiatives in the biomedical sciences.

"Science has made a lot of progress in understanding the molecular foundations of disease, and cancer remains one of our most vexing disease threats," said VMRCVM Dean Peter Eyre. "We believe this center will help us leverage our existing strengths in a way that will accelerate our activities in this critical area of human and animal health."

CeCO Aquires New Biophile Tumor Storage System

One of the first pieces of major equipment acquired by the Center for Comparative Oncology is an -80°C ultra-low temperature automated storage and retrieval system that has been invented and produced by BIOPHILE, a company spun off the new Carilion Biomedical Institute.

Dr. John Robertson, V.M.D., Director of the CeCO, and his team of researchers will be using the fully-automated BIOPHILE storage system for defining the clinical presentation, staging, grading, and differentiation of canine and feline malignant lymphoma and equine melanoma.

"The BIOPHILE unit is the centerpiece of our tumor tissue repository. This collection of tumors will be used for genomic and proteomic studies," said Dr. Robertson. "We are committed to developing the protocols needed for long term storage of tumors and clinical samples."

The BIOPHILE system will serve as the master automated storage system for the lab's tumor samples. Samples will be stored at -80∞C. BIOPHILE's advanced technology allows its sample storage area to remain sealed and accessible only through a secure airlock system with no frost build-up.

"When you look at the difference between BIOPHILE's automated system and a freezer that you open up and throw things into, the difference is really incomparable," said Dr. Robertson. "Like most research centers, we were having a problem with organization and segregation of samples. None of the storage units we presently have allow rapid and precise specimen storage and retrieval. The BIOPHILE system overcomes all of these common research headaches."

American Cancer Society Recognizes VMRCVM, Tech

A college faculty member was honored individually and Virginia Tech was honored institutionally by the Mid-Atlantic Region of the American Cancer Society during it 5th Annual Regional Awards Celebration.

Dr. John Robertson, professor, Department of Biomedical Sciences and Pathobiology, was awarded a "Regional Award of Merit" for his leadership in establishing several collaborative research, educational, and development programs between the college, the university, and the American Cancer Society.

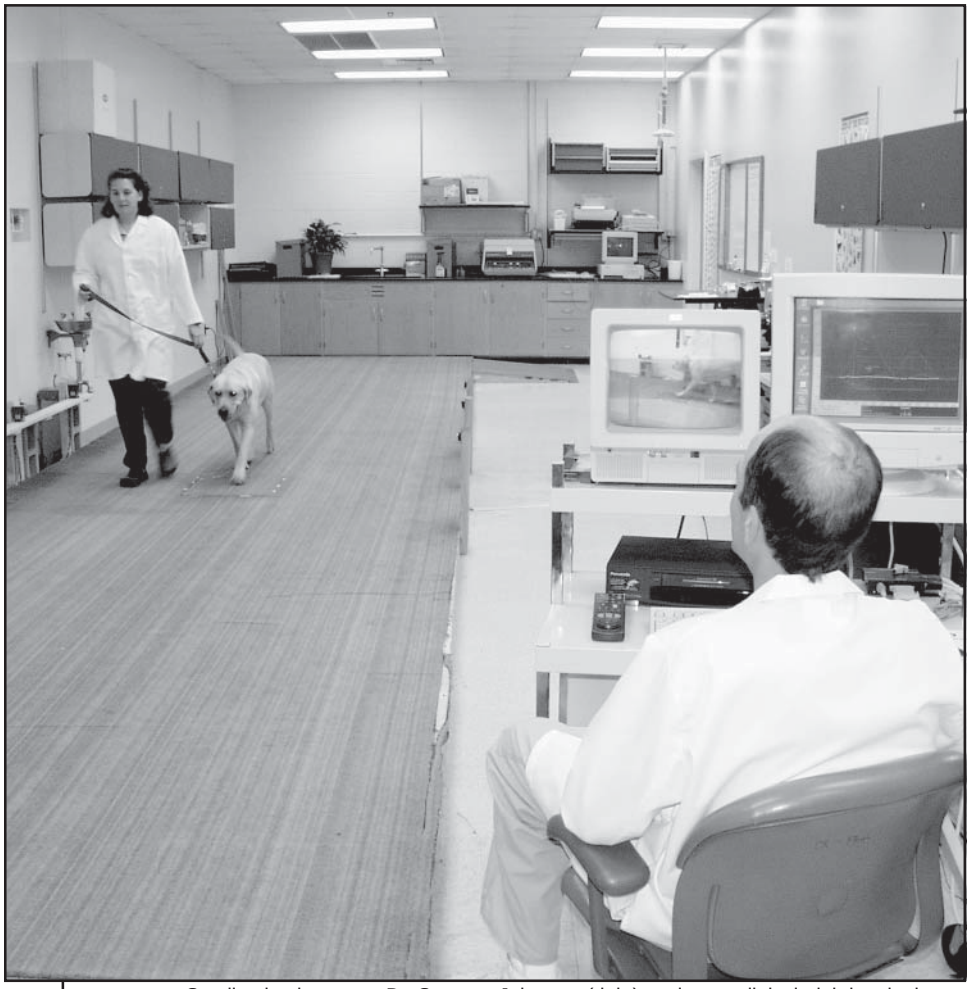
Robertson has made numerous presentations on cancer to various committees and organizations within the ACS and led efforts to create a more productive research and development relationship between the American Cancer Society and Virginia Tech. He organized a "Student Cancer Day" for veterinary students in the VMRCVM that was co-hosted by the ACS and he also organized the 22nd Annual American Cancer Society Seminar for Cancer Researchers in Virginia. He has also been very active with the ACS's "Relay for Life" program.

Virginia Tech was also honored with a regional "Collaboration Award" for helping advance the mission of the American Cancer Society. That award was made in recognition of an Institutional Research Grant in the area of comparative oncology that the ACS has funded in the VMRCVM for the past three years.

The award also recognizes work conducted by Dr. Charles Baffi, associate professor, Department of Teaching and Learning, and his graduate students for collaborating with the American Cancer Society and the National Collaborative Evaluation Fellows Project to critically examine and recommend improvements for ACS programs like "Active for Life," "Reach to Recovery," and "Road to Recovery" programs.

Finally, the award recognized the immensely successful "Relay for Life" program that was recently presented for the first time at Virginia Tech. Led by Brian Montgomery and Virginia Tech's Student Government Association, the program raised $50,000 for the ACS.

Robertson and a BioPhile team have worked together to implement a new automated tumor storage and retrieval system which is based upon the new BioPhile product.



Small animal surgeon Dr. Spencer Johnston (right) evaluates clinical trial data in the college's Force Plate Laboratory while a laboratory technician guides a dog through a trial. The laboratory is evaluating the effectiveness of new animal forms of pain-relieving medications called non-steroidal anti-inflammatory drugs (NSAIDS).

Animal Pain Receiving More Human Attention

Dr. Richard Broadstone

Pain. Whether it's the low-grade agony of arthritis, an accidental burn from a hot kitchen stove, or just a throbbing headache from too much screen time, we all know it and seek to avoid it.

Pain is clinically defined as "an unpleasant sensory and emotional experience with actual or potential tissue damage."

Thirty million Americans suffer from chronic pain, and experts estimate it costs us more than $100 billion a year in lost productivity. No wonder the U.S. Congress has declared this the decade of pain research.

Physicians now evaluate and measure human pain along with pulse, temperature, blood pressure and respiration as a fifth vital sign in assessing health and patient condition. We are asked "where it hurts" and urged to describe its "sharpness" or its "dullness" and its "frequency" before being dosed from a burgeoning assortment of over-the-counter and/or controlled medications.

But that isn't quite the case with animals, of course.

"It takes a little bit more effort to assess pain in animals," said Dr. Richard Broadstone, an associate professor and veterinary anesthesiologist in the college's Department of Small Animal Clinical Sciences. "But we have to recognize that animals do have pain. The pain pathways in animals are similar and the receptors are there."

Because of difficulties associated with assessing pain in animals, a historic lack of effective drugs and medications to treat it, and some economic and regulatory issues, the veterinary profession may not have done as good a job as it could have in dealing with animal pain, according to some experts. But that is changing fast.

Broadstone is part of a 50-member national task force of veterinarians from universities and the Food and Drug Administration that met in 2001 at the University of Tennessee to develop a common syllabus for teaching veterinary students about animal pain.

The 80-page document they produced systematically details procedures for assessing and managing acute and chronic pain in animals.

Evaluating animal pain requires keen observation of changes in animal behavior, as well as detailed discussions with animal owners.

Not all animals show pain the same way, Broadstone says. For example, cats, dogs, and horses may all show different changes in posture, temperament, vocalization and locomotion in response to pain. Similarly, there are variations in the way a wide array of analgesics and other medications are used with each.

Sponsored by Pfizer Corporation's Companion Animal Pain Management Consortium, the document produced by the group is emerging as a major manifesto for change.

Broadstone is part of a 50-member national task force of veterinarians from universities and the Food and Drug Administration that met in 2001 at the University of Tennessee to develop a common syllabus for teaching veterinary students about animal pain.

"This is a very dynamic thing," said Broadstone, who is board certified by the American College of Veterinary Anesthesiologists (ACVA). "It's not just a piece of paper."

The movement to more fully address the issue of animal pain has been fully embraced by veterinary specialty colleges that certify advanced practitioners and professional organizations like the American Animal Hospital Association and the American Veterinary Medical Association. Veterinary

medicine may adopt profession-wide standards for dealing with animal pain in 2003, Broadstone said.

Dr. Charles Short, Emeritus Professor of Anesthesiology and Pain Management at Cornell University and chair of the University of Tennessee's Center for the Management of Animal Pain, recently spent two days at the college presenting the syllabus and seeking input from VMRCVM faculty, residents, interns and students.

"The current upswing of interest in the management of animal pain by our profession and animal owners provides an excellent opportunity to expand primary patient care," said Short.

Dr. Charles Short

Statue at Veterinary College Honors Veterinary Memorial Fund

"This is an elegant symbol of a special program and a special relationship."

- Dean Peter Eyre

VMRCVM Veterinary Teaching Hospital Director Dr. Robert Martin (right) unveiled a new statue symbolizing the Veterinary Memorial Fund during the recent meeting of the Virginia Veterinary Medical Association (VVMA) on campus. The statue, which depicts a young girl and a dog, will be installed in the lobby of the teaching hospital. Looking on is Dr. Jack Sexton, immediate past-president of the VVMA.

A bronze statue depicting the relationship between pets and people was unveiled during recent ceremonies at the Virginia-Maryland Regional College of Veterinary Medicine.

The statue, which will be installed in the public entrance lobby of the college's Veterinary Teaching Hospital, was unveiled during the annual Fall Meeting of the Virginia Veterinary Medical Association and the college. The statue will symbolize the "Veterinary Memorial Fund," a memorial fund/research program jointly operated by the state professional association and the college.

Founded in 1984 and considered one of the oldest such funds in the nation, the Veterinary Memorial Fund is a program designed to soften the pet bereavement process and develop funding to support clinical research programs that promote animal health and well-being.

Since the program was created, about $646,000 has been raised and 88 different clinical research programs have been funded.

Created by Seattle-based sculptor Georgia Gerber, the life-size cast bronze statue depicts a young girl and a dog. A Hokie-stone base will be constructed in the hospital lobby for the permanent installation.

"This is an elegant symbol of a special program and a special relationship," said Dean Peter Eyre. "The statue will be a reminder of the power of the human/animal bond, and the importance of veterinary research."

The VMF program is a collaborative program between the college and the state's organized veterinary medical association. Participating veterinarians make a memorial contribution to the fund in honor of animals that have passed away in their practice. In turn, the dean of the VMRCVM sends an expression of condolence to the bereaved that informs them of the gift and its implications for improved animal healthcare in the future.

Veterinarians around the state convened in Blacksburg for the two-day meeting, which was initiated in the early 1980's to help introduce the state's new veterinary college to the state-wide community of practitioners.

The day got underway with the annual "Mentor/Mentee Breakfast," which pairs veterinary students with practicing veterinarians. Designed to provide veterinary students with direct access to the "real-world," the program seeks to help students prepare for the business and communication challenges of modern veterinary practice while fostering a broadened relationship between organized veterinary medicine and academia.

Fritz Wood, a leading expert on practice management and the economic climate of modern veterinary medicine, presented two seminars throughout the day. "Life After Debt: Wealth Building Fundamentals for Veterinary Professionals" focused on core personal and professional finance issues and "Outstanding Business Opportunities in Veterinary Medicine Today" illuminated strategies for achieving high-performance results from companion animal practices.

A Very Driven Doctor: Taranjit Kaur

By Ashley Tyler, (VT '03)

Dr. Taranjit Kaur

Using geographic information systems to promote public and animal health through the development of disease and environmental monitoring systems is as much a part of Dr. Kaur's day as teaching Kundalini Yoga. Here she is pictured with Virginia Tech student Jessica Hagerman (left) and third year VMRCVM student Kari Velguth (right)

Dr. Taranjit Kaur lives her life as an individual who has been profoundly influenced by a blend of eastern and western cultures.

She describes both her career and her other life passions as "an ideal blend of east and west. I love the beauty of nature, simplicity in life and walking a spiritual path, while at the same time I can engage in hi-tech and other aspects of western cultures."

Well before bioterrorism was a household word, Dr. Kaur chose to make it her research focus because she recognized the lack of literature in the area, and was able to envision the destructive magnitude of a self-perpetuating weapon.

Professionally, Dr. Kaur's interests lie within a field that is shaping global culture in these early days of the 21st century: weapons of mass destruction. In 1998 she completed an accelerated program at John Hopkins University and graduated with a Masters in Public Health, with her final focus on rapid identification of biological weapons.

Well before bioterrorism was a household word, Dr. Kaur chose to make it her research focus because she recognized the lack of literature in the area, and was able to envision the destructive magnitude of a self-perpetuating weapon.

After serving at MIT, UCLA, the Salk Institute and Tufts University in various capacities, she received an $80,000 grant from the National Science Foundation to create a system that will integrate geographic information systems with databases to track environmental toxins that enter the human food chain.

Kaur joined Tech in June 2001 as Director of Laboratory Animal Resources. Additionally, she teaches in both the DVM and graduate student programs.

She is also completing the research on her NSF grant, which got underway when she began working at Virginia Tech, and plans to submit her final report in the spring 2003.

While a truly remarkable individual in her professional career, some of the most interesting parts of Dr. Kaur's day begin to occur after normal work hours.

Simply saying that Taranjit Kaur is a humanitarian is an understatement. She bases her life around what she terms "the public health triad, the dynamic interaction between the key dimensions of life: humans, animals and their environment." She utilizes technology to integrate and study the three segments of the triad in her work, and focuses her personal life around the principle as well.

Traveling to Africa and India for three months to expand her personal horizons, she showed her true humanitarian nature. Throughout her travels, Taranjit's goal was to learn about life in its purest sense, "without materialistic complications." Visiting families after the apartheid and helping them transition, visiting tribal cultures to see how they live, studying African drumming and dance, and partaking on many safaris, she chose to view Africa not as a tourist, but as a pupil.

Taranjit's enjoyment of the "beauty, honor, and dignity that each person had and the tremendous poverty, disease, hunger, mental and emotional hardships experienced" served as catalyst for her decision to attend John's Hopkins and pursue her degree there, and since her original journey, she has returned three times.

Her unique outlook on the way to live life can be seen in her daily activities and passions as well. Taranjit practices and teaches Kundalini Yoga and vegetarian Indian cooking along with her husband. In addition to practicing Kundalini Yoga, the most powerful form of yoga through its complete integration of body, mind and spirit, she is a certified Level 2 Practitioner in an alternative form of healing called Reiki. This blend of spirituality and daily activity is rooted in her faith as a practicing Sikh. The Sikh faith focuses on the equality of all people and the integration of spirituality into daily life.

Working to be "as warm, friendly and compassionate to others as possible, and being attentive to how the things I eat and what I do impacts my life and my path" Dr. Taranjit Kaur's distinctive way of experiencing life is incredible to learn about.

Perhaps the best way to summarize her view of life is with her own description, "it is the opportunity to achieve balance and contribute to all aspects of my being." Dr. Kaur is a truly remarkable individual whose impact on the world and those around her is incalculable.

National Institutes of Health Awards Fellowship to Tech Veterinary Informatics Researcher

A veterinarian and Ph.D. candidate working in the college's Informatics Laboratory has been awarded a prestigious postdoctoral fellowship in medical informatics by the National Institutes of Health.

Funded by the National Library of Medicine, veterinary clinical pathologist Dr. Kurt Zimmerman will spend two years exploring the application of an internationally recognized medical nomenclature system in a computerized decision support system for clinical pathology.

"Virginia Tech is one of the few universities to offer both a residency training program in veterinary clinical pathology and graduate training in veterinary informatics. The disciplines complement each other well, with clinical pathology providing a data-rich environment and medical informatics providing the tools for data aggregation and analysis."

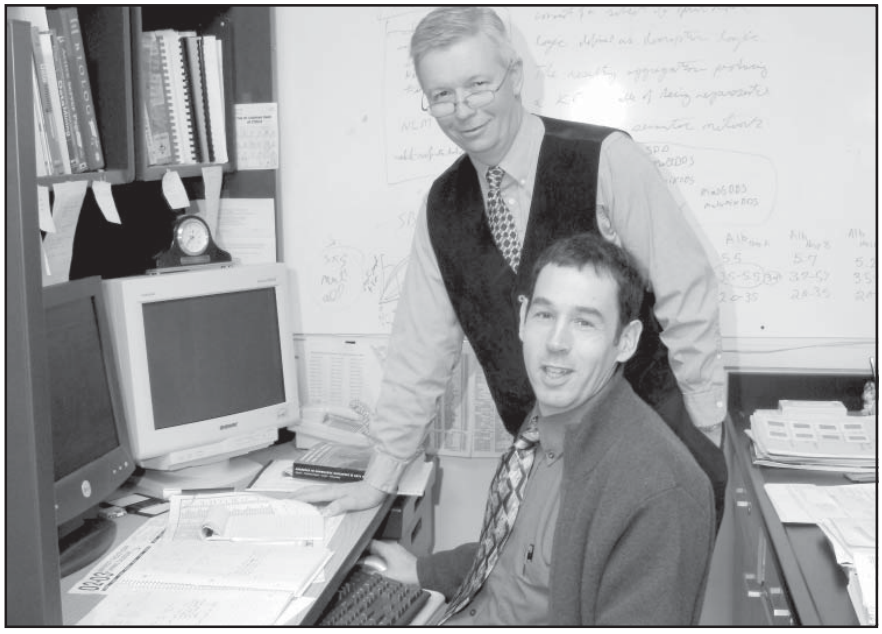
- Dr. Kurt Zimmerman

Clinical pathology is a branch of medicine that diagnoses disease by analyzing fluctuations in a person or animal's serum blood chemistry.

"Decision support systems are typically comprised of an interface for data input and output, a knowledge base for the storage of facts, and an inference engine for deriving new information," said Zimmerman, who completed a residency in veterinary clinical pathology and is board certified by the American College of Veterinary Pathology.

Zimmerman will examine the ability of a semantic network known as the Systemized Nomenclature of Medicine (SNOMED) to reliably function as a suitable knowledge base in the development of the medical decision support system. The ability of nomenclature systems to precisely model specific concepts is a critical component in computer-based information management systems.

Working with Dr. Jeff Wilcke, the Metcalf Professor of Veterinary Medical Informatics and the director of the American Veterinary Medical Association's Secretariat to SNOMED International, Zimmerman will examine SNOMED's suitability, establish a method for adapting SNOMED to a Baysian analytic network, and finally, evaluate the performance of the resulting decision support system using retrospective clinical chemistry data from drug toxicity studies.



Dr. Jeff Wilcke, the Metcalf Professor of Veterinary Medical Informatics (background), works with Dr. Kurt Zimmerman in the Veterinary Informatics Laboratory. Zimmerman is developing a computerized decision support system for clinical pathology while conducting a NIH post-doctoral fellowship.

If SNOMED is determined to function well as a knowledge base in this analytic environment, Zimmerman explains, it could pave the way for its application in a number of other domain specific decision support systems such as in oncology treatment.

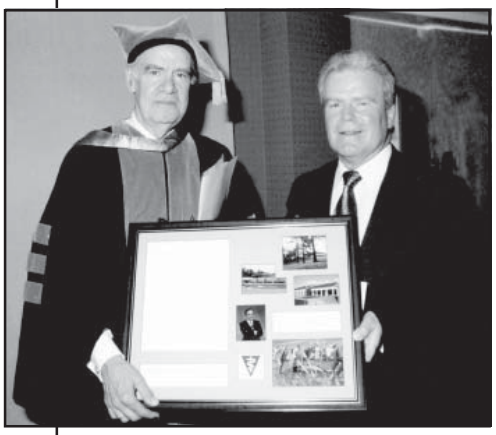
"Virginia Tech is one of the few universities to offer both a residency training program in veterinary clinical pathology and graduate training in veterinary informatics," notes Zimmerman. "The disciplines complement each other well, with clinical pathology providing a data-rich environment and medical informatics providing the tools for data aggregation and analysis."

In addition to Wilcke, Zimmerman will work closely with two others on the project. Dr. Kent Spackman, an associate professor of pathology and medical informatics at the Oregon Health Sciences University in Portland who serves as chairman of the SNOMED Editorial Board, will provide additional expertise in adapting SNOMED to the project. Dr. Loren P. Rees, Arthur Andersen Alumni Professor of Management Science and Information Technology in the Pamplin College of Business at Virginia Tech, will provide expertise in machine learning, artificial intelligence and the creation of decision support systems.

The quality of that team played a significant role in his receipt of the postdoctoral fellowship award, according to Zimmerman. Other criteria evaluated by the National Library of Medicine in making the award included the academic performance and potential of the candidate to become an important contributor in the biomedical, behavioral and clinical sciences, the specific merit of the work itself, and the project's value as a training experience.

The National Library of Medicine is funding the work as part of a larger effort to encourage the training and production of health care professionals who are capable of using health informatics to manage biomedical information management problems, thus improving the nation's overall healthcare system. Medical informatics involves the use of computers and telecommunications to manage and distribute information.

Brown Humanizing Veterinary Medicine



Brown was inducted into the college's prestigious John N. Dalton Society during the college's 2001 commencement ceremonies.

Like a force of nature, veterinarian, management consultant and business entrepreneur Dr. Bob Brown is working inexorably to change the culture of veterinary medicine.

Driven to help the profession achieve its greatest potential, Brown, the owner of Arlington, Virginia's Cherrydale Veterinary Clinic and an internationally regarded practice management specialist, has been traveling the world and making presentations on the "human" side of the profession—that facet of veterinary medicine that deals with clients, staff and professional colleagues— for years.

Brown's contention is that veterinary academia has been too sterile in its approach, too clinical in its outlook, as it packs the brains of each successive generation of veterinary practitioners with facts and figures and data. He posits the need for greater human relations training and leadership skills development in the profession.

And for more than a decade, Brown has been working to instill those skills in the students of the Virginia-Maryland Regional College of Veterinary Medicine. Since beginning his association with the regional college in the late 1980's as part of the Pew Charitable Trusts' veterinary education program, he has remained a continuous and frequent presence on the Blacksburg Campus.

Brown has presented workshops for the students in which he administered the Myers-Briggs Personality Inventory and helped them understand the implications different personality characteristics have on interpersonal relations.

He has provided debt and financial management advice through programs sponsored by major corporations and organized veterinary medical associations like the American Animal Hospital Association.

He was a major advocate and architect of the college's new one-week orientation program for first-year DVM students, a program that, among other things, works to foster team-work concepts with a ropes course in the nearby Allegheny Mountains.

"Bob Brown has been the driving force behind the development of career and life skills activities in both our curricular and para-curricular activities," said Dr. Grant Turnwald, associate dean for academic affairs. "In many ways, he has been years ahead of his time."

Brown has backed up his convictions about the need for change with his own resources. Over the years he has helped create and fund a variety of student development programs.

"I really think we've got to do something to create the leaders for the profession of veterinary medicine," observes Brown, in his characteristically calm and steady manner of speech, "instead of waiting around in the hopes that they will develop by chance."

Most recently, he has funded a recognition program among the VMRCVM student body that recognizes 16 students – one from each class –for excellence in leadership, entrepreneurship, communication, and cooperation/collaboration. Each class selects its own winners.

Additionally, the leadership award for the student honored for leadership in the second-year class will receive a fully paid scholarship to attend a week-long "Outward Bound" leadership experience in North Carolina.

The inaugural winner of the "Outward Bound" experience for the 2001-2002 award cycle was rising third-year student Jody Hewitt.

Veterinary Student Values Outward Bound Scholarship

Rising third-year student Jody Hewitt is not quite the same person she was prior to her "Outward Bound" experience in the western North Carolina mountains near Asheville.

Selected as the inaugural recipient of the "Outward Bound" leadership development scholarship funded by Dr. Bob Brown, Hewitt spent five days backpacking and three days doing "pretty vertical" rock-climbing as part of the famed nature-based character and leadership development program.

"It was a unique adventure," said Hewitt, a third-year student. "I learned my limits and how to push myself one step further."

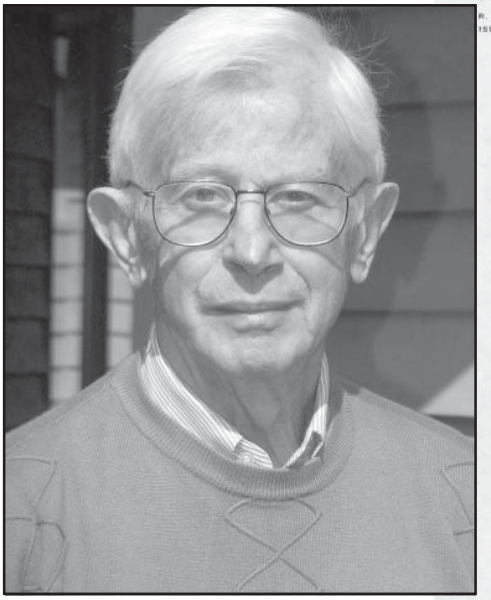
Hewitt says she also learned a lot about herself and a lot about working with others as she and ten other students back-packed, camped and climbed through the wilderness adventure.

Focused on daily themes such as service to self, service to others and service to the environment, the participants were challenged to develop self-reliance and trust in others while exerting minimal impact on the environment.

She says she also learned a lot about decision-making as she and her colleagues were forced to manage time and resources during their eight-day trek.

Hewitt (center) and friends pause during a rock-climbing trek in the North Carolina mountains that was part of her Outward Bound program.

Beller Reflects on Satisfying Career



This 53-year old correspondence attests to the varied tasks that veterinarians performed during the middle of the 20th century. Nowadays, meat inspection is conducted by full-time veterinarians employed by federal and state governments. Beller also did meat inspection work for the City of Norfolk.

The Board of Supervisors of Isle of Wight County
MEETS FIRST THURSDAY IN EACH MONTH
ISLE OF WIGHT, VIRGINIA

W. D. JOYNER, CHAIRMAN
R. F. D.
WINDSOR, VA.
S. A. WHITLEY
R.F.D.
SMITHFIELD, VA.
JOHN M. BALLARD
WALTERS, VA.
R. A. EDWARDS, CLERK
ISLE OF WIGHT, VA.

March 6 1950

Mr. W. W. Carr,
Walters, Va.

Dear Mr. Carr:

At a meeting of the Board of Supervisors of this county, held on Thursday, March 2nd the matter of approving a stamp to be used by you on certain meat products packed by you was discussed.

The Board has agreed that Isle of Wight County approves that a stamp marked "Isle of Wight County" be stamped on all meat and meat products packed by W. W. Carr, which have been inspected and passed by a licensed veterinarian in Isle of Wight County.

Very truly yours,

R. A. Edwards, Clerk
R. E. Holland D. C.

CC: Dr. Jerome Beller D.V.M.
Courtland, Va.

A Copy.
R. A. Edwards Clerk
R. E. Holland DC

Dr. Jerry Beller remembers when "quacks" would treat cow's suffering from "wolf in the tail" by splitting the tail and wrapping it with a greasy dish-rag.

The man who was granted the 375th license to practice veterinary medicine also remembers the founding of the VMRCVM in a very unique way.

Returning from a social engagement in Atlanta in 1974, he found himself seated next to the late Dr. Richard B. Talbot, founding dean of the school, on the plane. Talbot, then dean of the University of Georgia College of Veterinary Medicine, was on his way to speak to the Virginia General Assembly about creating a veterinary college in Virginia.

Those are just two of many unique memories the mixed animal practitioner who earned his DVM from the former Middlesex University in Waltham, Massachusetts in 1946 can recall.

Just after World War II, he took a job out of Newport News tending to livestock being shipped on "Victory" and "Liberty" ships to replenish European herds.

After seeing the world through that endeavor, Beller settled back in the Tidewater area. The Courtland, Virginia Chamber of Commerce was searching for a veterinarian, and Beller took the job.

What began as something he thought he would try for a while turned into a 12 year commitment where he practiced about 80% large animal and 20% small animal. But social unrest as well as economic conditions soon prompted another move.

"Tidewater at that time, if the Navy was in, everything was prosperous," recalled Beller. "If the Navy was out there was gloom. So we decided to come to the Richmond area."

After working briefly at the Animal Medical Center in New York City and doing infectious disease testing for the state of Virginia, Beller established the Stratford Hills Veterinary Center in 1960, a practice he operated until he sold it in 2000.

"The area was just developing and I came there at the right time," said Beller. "I consider that the 'Golden Age' of veterinary medicine. If you did your work the way you were supposed to, you could make out very well."

Now happily retired in a beautiful home overlooking a scenic lake in Chesterfield County, Beller looks back with satisfaction at a career that has seen veterinary medicine move visibly from an art to a science.

Beller has been active in organized veterinary medicine throughout his career, including a term as president of the Central Virginia Veterinary Medical Association and service on the statewide board of directors. He still attends many VVMA events.

Similarly, Beller has always been a strong supporter of the veterinary college. He recalls attending the college groundbreaking ceremonies on April 16, 1979. In fact, he can be seen standing over the shoulder of the late Virginia Governor John Dalton in a famous photograph that depicts Founding Dean Talbot, Dalton, and former Virginia Tech President William Lavery guiding a plow pulled by a mighty Belgian during ceremonies.

"I thought that was a historic time for Virginia veterinary medicine," he recalled. "I think the college has elevated the quality of veterinary medicine available for the people of Virginia."

Names in the News from the Blacksburg Campus

Dr. Marie Suthers-McCabe, extension specialist human animal relationships, made a presentation on the Human-Animal Bond" and "9/11/01 Tragedy, Response, Recovery" at the VMAT 2 Team meeting held at the Penn Vet Supply in Lancaster, Pennsylvania.

Veterinary medical Assistance Teams (VMAT) are part of the National Disaster Medical System, which is coordinated by the U.S. Government's Department of Health and Human Services.

Suthers-McCabe spent two weeks in New York City immediately following the 9/11 disaster helping out with rescue operations.

Suthers-McCabe also made presentations on "Animals and the Elderly: Using Animal/Human Relationships to Promote Successful Aging" and "Link Between Cruelty to Animals and Human Violence" at the 20th Anniversary "Seminar on Older Persons" sponsored by the Southwest Virginia Training Consortium, the Town of Abingdon, and the Virginia Department of Social Services in Abingdon.

She also delivered the keynote presentation at a meeting called "Horse Power" in Temple, New Hampshire which focused on "Therapy Horse Wellness: A Team Approach." Suthers-McCabe presented a lecture on multidisciplinary approaches to keeping horses well and happy and shared an electronic presentation entitled "Horses and Humans in Relationship Through the Ages." She also made a presentation entitled "Stressors and the Therapy Horse during the meeting.

Suthers-McCabe also made a presentation entitled "Veterinary Medical Assistance Team at Ground Zero" following the Faculty-Council Dinner component of the Virginia Tech Department of Chemistry Advisory Council's spring meeting.

Suthers-McCabe also made presentations on animal assisted therapy and the human/animal bond at the annual Tufts Animal Expo in Boston.

Martijn Fenaux and **Fang-Fang Huang**, graduate students working with Dr. X.J. Meng in the Center for Molecular Medicine and Infectious Diseases, won the first place and second place awards, respectively, in the Agricultural and Biological Sciences category of the 18th Annual Graduate Research Symposium at Virginia Tech.

Dr. Michael Leib, professor, Department of Small Animal Clinical Sciences, presented 12 hours of lectures at the annual meeting of the American Animal Hospital Association in Boston. Leib's presentation's included "Acute pancreatitis in dogs: a diagnostic dilemma," Chronic vomiting – the role of Helicobacter," "Giardia infection in dogs and cats," "Large bowel diarrhea in dogs – what's new?" "Treatment of inflammatory bowel disease," and others.

Leib also presented lectures on chronic vomiting, large bowel diarrhea in dogs, acute pancreatis in dogs and giardia infection in dogs and cats at the 74th annual Western Veterinary Conference in Las Vegas. He also served as topic coordinator of the Gastroenterology section at the meeting.

Leib also presented a similar set of lectures at a meeting of the North Carolina Veterinary Medical Association in Research Triangle Park, North Carolina.

Dr. Rene Prater, who recently completed Ph.D. studies in conjunction with **Dr. Steven Holladay**, won the "Outstanding Research Award for Virginia Tech Ph.D students from the Alpha Psi Chapter of Phi Sigma Biological Honor Society. Prater has accepted a faculty position with the Edward Via Virginia College of Osteopathic Medicine and will continue to conduct research in the VMRCVM.

Dr. John Dascanio, associate professor, Department of Small Animal Clinical Sciences, authored an article on "Equine Fungal Endometritis" that was published in the Journal of Equine Veterinary Education.

Dascanio also co-chaired a "Sunrise Session" discussion group on mare reproduction at the annual meeting of the American Association of Equine Practitioners.

An overview of **Dr. Ansar Ahmed's** recent work examining a possible connection between estrogen and autoimmune disorders was published in an article which appeared in "Trends in Immunology." Ahmed, associate professor, Department of Biomedical Sciences and Pathobiology, directs the college's Center for Molecular Medicine and Infectious Disease.

Ahmed also co-chaired the "Sex Hormones and the Connective Tissue Diseases" program at the Third International Conference on Sex Hormones, Pregnancy, and Rheumatic Diseases and presented an invited lecture entitled "Estrogenic compounds regulate interferon-gamma: Implications to autoimmune diseases" at the Third International Conference on Sex Hormones, Pregnancy and Rheumatic Diseases in New Orleans.

Ahmed also made a presentation on the role of sex hormones in autoimmune diseases before a meeting of the Immunology Council at Johns Hopkins University. That lecture was made available to Johns Hopkins distance education sites around the world via satellite.

Ahmed was also invited to chair the breakout section on "Environmental Factors in Autoimmune Disease for an National Institutes of Health conference convened to set research priorities in Durham, North Carolina.

Ahmed also serves as a Study Section Member of Altox-4, a National Institutes of Health review panel that evaluates funding priorities for alcohol and toxicology.

Ms. Alexa C. Rosypal, a graduate student working with veterinary parasitologist Dr. David Lindsey, has been named a Morris Animal Foundation Fellow, a program which recognizes and supports promising veterinary graduate student researchers. The Colorado-based Morris Animal Foundation improves the health and well-being of companion animals and wildlife by funding humane health studies and disseminating information about these studies.

Laboratory for Neurotoxicity Studies co-directors **Dr. Bernie Jortner** and **Dr. Marion Ehrich** led a delegation of graduate students and technical staff to the 41st annual meeting of the Society for Toxicology in Nashville. Members of the laboratory presented 10 professional papers concerning different aspects of organophosphate toxicity and other toxic compounds at the meeting. Graduate students presenting papers included Jonathon Fox, Marquea King, Thitiya Pung and Melinda Pomeroy. Dr. Ehrich served as co-chair of the Program Committee and is Vice-President elect of the Society. Graduate students Marquea King and Thitiya Pung were awarded travel grants from the Society of Toxicology and the National Capitol Regional Chapter of the Society of Toxicology, respectively. Jortner and Ehrich are both professors in the Department of Biomedical Sciences and Pathobiology.

Ehrich also led a delegation of students to a meeting of the National Capital Area Chapter of the Society of Toxicology at the University of Maryland at College Park. Graduate students attending included Damani Parran, Amy Wang, Selen Olgun, Thitiya Pung, Melinda Pomeroy, and Marquea King. The theme of the meeting was "Dose Response Assessment – Cornerstone of Toxicology. Current Challenges for Risk Assessment." At that meeting, Amy Wang represented the Student Advisory Committee of the Society of Toxicology. Ehrich provided an update of activities at the national level. The following posters were presented: Corticosterone in Drinking Water Enhanced Absorption of a Single Oral Dose of Corticosterone (T. Pung), Methylmercury Impairs Neuronal Differentiation by Altering Significant Roles in Development of Renal Disease in Laboratory Dogs (M. Pomeroy), CBA/J Mice to a Chronic Toxoplamsa gondii Infection (M. King), and Pesticide Toxicity in Thymocytes is Related to Oxidative Stress (S. Olgun). Awards for student/postdoctoral presentations were given to Damani Parran and Selen Olgun.

Dr. Bonnie Smith, associate professor, Department of Biomedical Sciences and Pathobiology, and **Dr. Marion Ehrich**, professor, Department of Biomedical Sciences

and Pathobiology, made presentations on how to make platform presentations at scientific society meetings at the National Capital Area Chapter-Society of Toxicology's "Student Day Symposium" in Washington, D.C. VMRCVM Graduate student Amy Wang coordinated the program.

Dr. Peter Shires, professor, Department of Small Animal Clinical Sciences, presented "Didactic Alternatives for Surgical Education" at the American College of Veterinary Surgeons' Annual Symposium in San Diego. Shires serves on the ACVS Public Relations Committee and also serves as their webmaster.

Dr. Will Eyestone, research associate professor, Department of Large Animal Clinical Sciences, served on the National Research Council's Sub-Committee on Defining Science Based Concerns Associated with the Products of Animal Biotechnology. That blue-ribbon panel of experts examined issues related to the safety of cloned animals and food products derived from them. The group determined that some risk does exist that genetically engineering fish and other animals could escape and potentially introduce engineered genes into wild populations, but discerned no evidence that the products from cloned livestock were unsafe for human consumption. Their final report was published by the National Academy Press and is entitled "Animal Biotechnology: Science Based Concerns."

Eyestone also made a presentation on "Emerging Applications of Animal Biotechnology" at the National Academy of Sciences' Committee on Agricultural Biotechnology, Health, and the Environment in Washington.

Dr. Steven Holladay, professor, Biomedical Sciences and Pathobiology, presented "Maternal immune system stimulation and effects on teratogenesis" at a Society of Toxicology CCT Workshop entitled "Non-Clinical Safety Evaluation of Preventive Vaccines" in Washington D.C.

He also presented "Non-specific immune activation and prevention of chemical induced teratology" during a Cornell University Graduate Seminars in Toxicology course in Ithaca, New York.

Dr. X.J. Meng, assistant professor, Department of Biomedical Sciences and Pathobiology, authored and co-authored five articles in peer-reviewed journals (one each in Journal of Virology, Journal of General Virology and Veterinary Record, and two in Journal of Clinical Microbiology) on pathogenesis and replication of hepatitis E virus (HEV), porcine reproductive and respiratory syndrome virus (PRRSV) and porcine circovirus (PCV). Meng is also an author or co-author of eight presentations on HEV, PRRSV and PCV at two national meetings, the 83rd Conference of Research Workers in Animal Diseases in November 2002 and the American Association of Veterinary Laboratory Diagnosticians.

Meng recently gave invited seminars at the University of Minnesota College of Veterinary Medicine and at the St. Louis University School of Medicine on the comparative pathogenesis of hepatitis E virus, a special honorable luncheon seminar on hepatitis E virus zoonosis at the 89th Annual Meeting of the Japanese Society of Gastroenterology, Tokyo, Japan, and an invited symposium talk on the public health issue regarding swine hepatitis E virus at the 2003 Meetings of the American Association of Swine Veterinarians in Orlando, Florida.

Since September 2002, Meng has been awarded a total of four extramural grants including a NIH R01 grant, a USDA-NRICGP grant and two industry grants totaling more than $1 million to study the pathogenesis and replication of the avian hepatitis E virus recently discovered by his group, and to develop a vaccine against porcine cirovirus.

Recently, Meng served as a member of NIH Comparative Medicine Study Section site visit teams to Harvard Medical School and the Tulane Health Science Center, and served as a member of the Virology Review Panel for the U.S. Department of Defense's Intramural Military Infectious Diseases Research Program.

An article authored by **Dr. Peter Eyre**, dean, has been published in the Journal of Veterinary Medical Education. "Engineering Veterinary Education" examines the growing complexity of veterinary medicine and suggests a model for veterinary education that sub-divides the profession into more focused sub-disciplines as the profession of engineering has done.

An article written by **Dr. Thomas J. Inzana**, professor, Department of Biomedical Sciences and Pathobiology, has been published in a professional journal. "Incorporation of *N*-acetylneuraminic acid into Haemophilus somnus lipooligosaccharide (LOS): Enhancement of resistance to serum and reduction of LOS antibody binding" has been published in Infection and Immunity.

Inzana has also presented three presentations at recent professional society meetings. He presented "Current progress on the complete sequencing of the genome of Haemophilus somnus at the 2002 International Pasteurellaceae Society Conference in Banff, Canada. Also, he presented "Exopolysaccharide Production by Haemophilus somnus at the 102nd General Meeting of the American Society for Microbiology in Salt Lake City, Utah. Finally, he presented "Incorporation of N-acetylneuraminic acid into Haemophilus somnus Lipooligosaccharide" at the International Endotoxin Society's 7th Biennial Conference in Washington, D.C.

An article published by **Dr. Douglas B. Berry, II**, clinical instructor, Large Animal Clinical Sciences, has been published in a professional journal. "Effects of topical application of antimicrobials and bandaging on healing and granulation tissue formation in wounds of the distal aspect of the limbs of horses" was published in the Journal of Veterinary Research.

Dr. Bernie Jortner, professor, Department of Biomedical Sciences and Pathobiology, presented a paper entitled "Gracile fasciculus axonopathy related to exposure to organophosphates in rats, and its modification by stress" at the 32nd Annual Meeting of the Society for Neuroscience in Orlando, Florida.

Cecilia Dodd, a graduate student working with **Dr. Bradley Klein**, associate professor, Department of Biomedical Sciences and Pathobiology, presented a paper entitled "Basal ganglia accumulation and motor assessment following manganese chloride exposure in the C57BL/6 mouse" at the 32 Annual Meeting of the Society for Neuroscience in Orlando, Florida.

Dr. D. Phillip Sponenberg, professor, Department of Biomedical Sciences and pathobiology, has been honored by the American Livestock Breeds Conservancy. The group's annual conservation award has been renamed the "Bixby-Sponenberg Award." The honor recognizes Sponenberg's three decades of work in conserving rare breeds of livestock nationally and internationally.

Dr. David Lindsey, professor, Department of Biomedical Sciences and Pathobiology, has been named associate editor of the Journal of Parasitology. Lindsey also served as a panel member for the advisory board of the Protistology section of the American Type Culture Collection. Lindsey also served as Chairman and Program Organizer for the 36th Annual Coccidiosis Conference, held in conjunction with a joint meeting of the International Congress of Parasitologists and the American Society of Parasitologists in Vancouver, British Columbia.

Sheila Mitchell, a graduate student studying with Dr. Lindsey, authored an article entitled "Prevalence of agglutinating antibodies to Sarcocystis neurona in skunks (Mephitis mephitis), raccoons, (Procyon lotor), and opossums (Didelphis virginiana) from Connecticut" in the Journal of Parasitology.

An article written by Lindsay entitled "Porcine enteritis associated with Eimeria spinosa Henry, 1931 infection" was also published in the Journal of Parasitology.

Alexa Rosypal, a graduate student studying with Lindsey, presented "Responses of immunocompetent and immune deficient mice to infection with an american isolate of leishmania infantum" at a joine meeting of the International Congress of Parasitologists and the American Society of Parasitologists in Vancouver, British Columbia.

VTH Director **Dr. Robert Martin,** professor, Department of Small Animal Clinical Sciences, has been named a Center for Organizational and Technological Advancement (COTA) Fellow.

Established in 1994, COTA fosters economic development and provides continuing education services that are based upon connecting the university's research initiatives to the workforce development needs of the business, professional and government communities.

COTA works with Virginia Tech faculty members on the creation and delivery of programs at the Hotel Roanoke and Conference Center.

GRADUATION 2002

College Graduates 19th Class

Eighty-six DVM degrees, three Ph.D. degrees, 10 M.S. degrees and eight Certificates of Residency were awarded during the college's 19th commencement ceremony.

Of the DVM graduates, 17, or almost 20% have been awarded prestigious post-graduate internships at training institutions around the nation, an achievement that speaks of the academic quality of the graduates and the strong trend towards specialization in veterinary medicine.

"Post-graduate internships are awarded on the basis of academic performance and other criteria," said VMRCVM Dean Peter Eyre. "Our students traditionally score higher than average on the national veterinary licensing examination. I think this is another example of the growing academic quality of the college."

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.

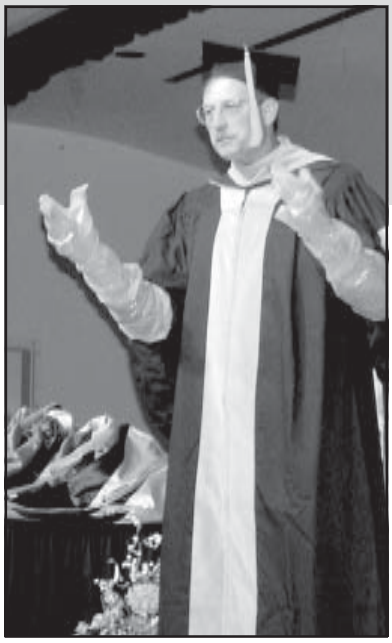
Dr. Kevin Pelzer, an associate professor in the Department of Large Animal Clinical Sciences, was invited by the class to present the Keynote Address.

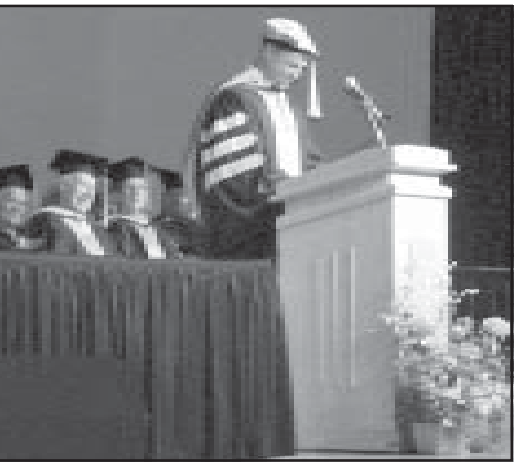
Dr. Fred Everhardt, president of the Maryland Veterinary Medical Association, administered the "Veterinarian's Oath," and Dr. Lisa G. Miller, president of the Virginia Veterinary Medical Association, welcomed the new veterinarians on behalf of organized veterinary medicine.

Dr. Benjamin C. Haas, the Class of 2002 valedictorian, was presented with the Richard B. Talbot Award, and Dr. Rebecca Rice ('91) was honored as the College's Outstanding Young Alumna for 2002.

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

Eighty-six DVM degrees, 10 M.S. degrees and eight Certificates of Residency were awarded during the college's 19th commencement ceremonies. (Above left) Veterinarians were sworn into the profession by former Maryland Veterinary Medical Association President Dr. Fred Everhardt, who led them in reciting the Veterinarian's Oath. (Middle) members of the stage party participate in the ceremony. (Above) Class of 2002 Valedictorian Dr. Benjamin C. Haas is presented the Richard B. Talbot Award by Dean Eyre.





(Above) Dr. Kevin Pelzer, associate professor, Department of Large Animal Clinical Sciences, was invited by the class to present the ceremony's keynote address. (Above) Haas shares his thoughts with classmates during the ceremony. (Above right, from left) Associate Dean for Research and Graduate Studies Dr. Gerhardt Schurig, Associate Dean for Academic Affairs Dr. Grant Turnwald, 2002 Outstanding Alumnus Dr. Rebecca Rice ('91), Dalton Honoree Dr. Jim Shuler, and Dean Peter Eyre.

Delegate Shuler Honored by College

The Honorable James M. Shuler, D.V.M., was inducted into the college's John N. Dalton Society during the college's 19th commencement ceremonies.

A noted veterinarian, community leader, businessman and member of the Virginia General Assembly, Shuler has been a strong voice for agriculture, the profession of veterinary medicine and the veterinary college in the Virginia Statehouse.

"Jim Shuler has been a strong supporter and advocate for Virginia Tech and the Virginia-Maryland Regional College of Veterinary Medicine throughout his professional life," said VMRCVM Dean Peter Eyre. "As a veterinarian, he has also provided special wisdom and insight into important public policy debates in Richmond. We're delighted to honor him with induction into the Dalton Society."

Shuler earned a Bachelor of Science degree from Virginia Tech in 1966 before enrolling in the College of Veterinary Medicine at the University of Georgia, where he earned a D.V.M. in 1970, earning distinction as the Outstanding Senior in his graduating class.

Founder and operator of Blacksburg's Companion Animal Clinic, Shuler has been a member, advocate and leader for many professional veterinary organizations including the American Animal Hospital Association, and the American Veterinary Medical Association. He has also been active with the Virginia Veterinary Medical Association, where he served on the Board of Directors and as President of the Southwest Virginia Veterinary Medical Association. He has also served as an adjunct clinical instructor for the VMRCVM.

Shuler has also been an active community servant. He has worked with numerous business, professional, and regulatory organizations, including service as a member of the board of the National Bank of Blacksburg, the Community Foundation of the New River Valley, the Montgomery County Chamber of Commerce, the Allegheny County Chamber of Commerce, the Christiansburg/Montgomery Chamber of Commerce, the Blacksburg Baptist Church Board of Deacons, the Kiwanis Club and the Virginia Tech Alumni Association.

Shuler's career in politics and regulatory affairs spans two decades. He served for six years as a member of the Blacksburg Town Council, eight years as a member of the Virginia State Board of Health, and has served for nine years as a member of the Virginia House of Delegates.

Continue next page

Shuler has been honored for service and leadership by numerous organizations. Among those are the 1995 Distinguished Virginia Veterinarian Award from the Virginia Veterinary Medical Association, the 1996 Legislator of the Year Award from the Virginia Association of Home Care, the 1996 Virginia Legislative Herd Health Award from the Virginia Veterinary Medical Association, and the 1998 Legislator of the Year Award from the Virginia Horse Council.

The Honorable James M. Shuler, a veterinarian and member of the Virginia General Assembly, was inducted into the college's John N. Dalton Society during the commencement ceremonies.

College Presents Annual Awards Ceremony

Seven faculty members were recognized for excellence in teaching and 56 different scholarships awards were presented to 143 students during the college's 19th Annual College Awards Program.

The Carl J. Norden Distinguished Teacher Award was presented to Dr. S. Dru Forrester, professor, Department of Small Animal Clinical Sciences. Sponsored by Pfizer Animal Health, this national award honors faculty members who have displayed outstanding teaching ability. Forrester also received the award in 1993.

The Dr. and Mrs. Dorsey Taylor Mahin Award for Clinical Excellence was presented to Dr. Thomas O. Manning, a clinical instructor and veterinary dermatologist. That award recognizes a faculty member for professionalism, clinical excellence and compassion for animals and owners.

Dr. John L. Robertson, professor, Department of Biomedical Sciences and Pathobiology, was awarded the College Teaching Award and a Virginia Tech Certificate of Teaching Excellence. That award honors a faculty member who has made exceptional contributions to the college's instructional program.

The Class of 2003 Teacher of the Year Award was presented to two faculty members in recognition of their outstanding abilities as clinical teachers during the third year of the instructional program. Dr. Spencer Johnston, professor, Department of Small Animal Clinical Sciences; and Dr. Kevin Pelzer, associate professor, Department of Large Animal Clinical Sciences, were each honored.

The Class of 2004 Teacher of the Year Award was presented to Dr. Marion Ehrich, professor, Department of Biomedical Sciences and Pathobiology. That award is presented by the third year class to a professor teaching during the second year of the instructional program in recognition of superior communication skills and the ability to demonstrate the relevance of the basic sciences.

The Class of 2005 Teacher of the Year Award was presented to Dr. Bonnie J. Smith, associate professor, Department of Biomedical Sciences and Pathobiology. It is presented by the second year class to a professor teaching in the first year of the instructional program on the basis of the same criteria.

The student scholarships presented have been funded by a variety of individuals and organizations that seek to promote excellence in the college's academic programs and provide educational opportunities for deserving students. They are awarded to students on the basis of academic performance, leadership, and need.

Elaine Kelley is recognized for earning the Peter L. Via Scholarship, which is made possible as a result of a gift from Peter L. Via and the Marion Bradley Via Memorial Foundation.

14th Annual VMRCVM Research Symposium Profiles Growing Program

Associate Dean for Research and Graduate Studies Dr. Gerhardt Schurig congratulates graduate student Kijona F. Key for her success in the basic sciences component of the graduate student research competition.

A VMRCVM alumnus who works with the Centers for Disease Control and Prevention in Atlanta outlined her agency's stepped up role in helping the United States prepare itself against the threat of bio-terrorism during the VMRCVM's 14th Annual Research Symposium.

Dr. Jennifer McQuiston (DVM '93, M.S. '98), a veterinary epidemiologist, explained how the CDC has been tasked by the Department of Health and Human Services to lead efforts aimed at upgrading the national public health system's ability to deal with the threat of biological and chemical terrorism.

As part of her presentation, she outlined threats posed by Category A bio-terrorism agents such as smallpox, anthrax, and plague, and Category B agents such as brucellosis and assorted viral agents that cause a variety of zoonotic encephalitic disorders.

McQuiston also discussed the CDC's role in helping the nation deal with the World Trade Center disaster and the subsequent spate of anthrax contaminated mail.

Her talk was the alumni keynote for the college's 14th Annual Research Symposium, which showcases faculty research activities and features a graduate student research competition.

Dr. Oliver Smithies of the University of North Carolina at Chapel Hill provided other keynote remarks during a presentation entitled "Mouse Solutions to Human Problems."

In general remarks made before the symposium, Dean Peter Eyre observed that this would likely be the last time the VMRCVM research symposium focused solely on veterinary college research because of the college's growing involvement with the university's Natural Sciences Consortium and the emerging School of Biomedical Engineering.

Eyre says the VMRCVM will concentrate fully on developing its research agenda during the first decade of the 21st century, just as it concentrated on establishing excellence in its academic programs in the 1980's and its clinical service programs in the 1990's.

Associate Dean for Research and Graduate Studies Dr. Gerhardt Schurig said he was pleased with the "multiplicity of research" which was showcased and said that the college is poised for significant growth in a number of research areas.

Dr. Jennifer McQuiston

In the basic sciences component of the graduate student research event, there were ties for both first and second place in the faculty adjudicated competition. First place honors were shared by Andrea Contreras for "Generation of a Bivalent Vaccine Strain Able to Simultaneously Protect Against Brucellosis and Paratuberculosis" and Kijona F. Key for "Differentiation of Vaccine or Vaccine-Like Isolates from Field Isolates or Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Using a Heteroduplex Mobility Assay."

Second place honors in the basic sciences competition were shared by Martijn Fenaux for "Construction and In Vitro Characterization of Chimeric Infectious DNA Clones Between Pathogenic PCV2 and Non-Pathogenic PCV1" and Fang Fang Huang for "Heterogeneity and Seroprevalence of the Newly Identified Avian Hepatitis E Virus from Chickens in the United States."

Dr. Oliver Smithies

In the clinical science competition, Kevin P. Gulikers earned first-place honors for "Effect of Clomipramine on the Canine Hypothalmic-Pituitary-Thyroid Axis." Second place was claimed by Stephanie Hamilton for "The Evaluation of Analgesia Provided by Epidural Ketamine in Dogs with a Chemically Induced Synovitis" and third place honors went to Tori McKlveen for "Computed Tomography of the Normal Equine Pituitary Gland."

DEVELOPMENT

Development Report from the Blacksburg Campus

by E. Frank Pearsall, II, DVM '84

An Exciting Ride –

I don't know how many of you have ever ridden the Rockin Roller Coaster at Disney World, but I feel like I have just gotten on board. That ride does 0-60 in about 4.5 seconds and takes your breath away. The ride we are embarking on may be even more exciting!

There are two new initiatives on Tech's campus which will propel this ride; one is called VTICT and the other VTILS. We will be an integral part of both. The first is the Virginia Tech Institutes for Critical Technologies. The second is the Virginia Tech Institutes for Life Sciences. (The names may change, but the mission will not.) These will be the focal point of our Research 30 initiative with the stated goal of positioning Tech to be competitive for not only the $5,000,000 research grants, but also for the $50,000,000 ones.

All of science is converging, for example, the biological sciences are being looked to for the next model of sophisticated computing technology and the technical sciences are being sought for the means to detect, modify, and treat biological systems. On top of the opportunities, an urgency has been added with the spectre of bioterrorism. What all of this means is that mammoth opportunities exist for those who can put it all together. Tech is determined to be one that does it right.

Fortunately our college is being led by one of the senior deans on campus and the senior veterinary dean in the nation. His vision and clout are proving to be very important as we position ourselves for the future. And we are on the way.

Already we are working collaboratively in new and "out-of-the-box" areas: for example our ophthalmologists are working with Mechanical Engineering faculty evaluating trauma injury causes and prevention, our cellular biologists are working with tissue engineering researchers to develop a better understanding of angiogenesis so tumor growth might be reversed or new tissue development stimulated, our (Center for Molecular Medicine and Infectious Diseases) team is working on innovations in basic vaccine technology to create new vaccines for pathogens affecting both animals and man, such as anthrax, tularemia, brucella, and hepatitis E, and our Laboratory for Neurotoxicity Studies continues to work with industry and government looking at environmental toxins. Just launched is our college Center for Comparative Oncology looking into spontaneously appearing cancers in animals as models to understand and treat human tumors and to study cell signaling and tumor dynamics. The Center is also preparing to work with both our College of Engineering and Wake Forest Medical Center on imaging technologies. On the drawing board for future work are projects with both photonics and microelectronics researchers to develop diagnostic sensors for infectious organisms and molecular diagnostics using microarrays to establish "biosignatures" which will enable us to detect exposure of humans to infectious agents within a few minutes.

What this means to development is that a whole new universe of opportunities for partnerships with donors has been opened up. We will still be focused on animals and improving their health. But we will also be focused to a much larger extent than ever before on the relevance of animal health to human health. Many of the breakthroughs are likely to happen at this interface. That means a much larger audience with a vested interest in the success of what we are doing.

We are excited with the prospect and encouraged by the rapid growth of the College over the short time we have been in existence, and that is due primarily to the support which we have received from you, our friends. Thank you for helping us be in position to make this big step forward. You have been wonderful. This past year you gave us $1,298,822 with an additional $995,000 in planned giving for a total of $2,293,822! So in spite of budgetary trials, we are moving forward in a great way. Together the future is truly bright. Thank you and please come to visit whenever you can.

O'Brien's Gift Annuities Will Bring Her Goals to Life at Virginia Tech

JoAnne O'Brien and Charlie Brown

Animals have always dotted the landscape of JoAnne O'Brien's life. As a child, she helped her parents raise Chow Chow show dogs. As an adult, O'Brien became a veterinarian and maintained a practice for over thirty-five years, primarily in the Washington, D.C. area. As a retiree, she still raises and shows champion Chows. Her goal now is to assist research at the Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM) in canine and feline reproductive problems.

Along the way, O'Brien discovered the charitable gift annuity, a plan which

will allow her to meet her own financial goals including increased retirement income and important tax benefits. She appreciates the high payout rate, which is better than other market options.

As a donor and 1952 graduate of the University of Minnesota (one of two women in her class), Dr. O'Brien selected Virginia Tech as the beneficiary of multiple gift annuities. The remainder gift portion of one annuity, established to give her brother lifetime income, has already benefited the VMRCVM, and she is pleased to see her gift in action. As an extra benefit of her deferred gift, O'Brien enjoys membership in the university's Ut Prosim Society.

Gifts of $10,000 or More Received or Pledged July 1, 2001 – June 30, 2002

(Totals "to date" are as of December 31, 2002)

Dorothy A. Metcalf – an additional $250,000 to support the operating accounts and endowments for the Dorothy A. and Richard G. Metcalf Professorship in Informatics and their Human-Animal Interaction Fund. This brings those endowments and operating accounts to a total of $1,048,000 to date. The support is funding pioneering efforts in both fields.

The Estate of Charles J. Gose, Jr. – a bequest of $100,000 to support a scholarship endowment for senior DVM students pursuing a career in small animal medicine selected on a combination of need and merit in memory of a great animal lover, client, and friend.

Mrs. Frances Farr Young – $50,000 towards the new Dr. Tyler J. and Frances F. Young Professorship in Bacteriology in addition to their endowed scholarship, for a new total of $250,000 in support to date. We are very appreciative of the contributions which she and her late husband have made, and continue to make, to the profession, to the students, and now to faculty support.

Anonymous - an additional $49,623 from our great friends in Richmond supporting small animal research for a total of $88,336 to date. These funds are critical to providing the flexibility needed to support our most productive research opportunities.

Estate of Nina Elizabeth Moorehead – a bequest from a true lover of animals, especially cats, from Norfolk of $42,118 in memory of her mother, Jessie Wickham Moorehead, to support the college, used both for current projects and to create a perpetual support endowment.

William F. Morrisette, Sr. & David W. Morrisette – an additional $40,172.68 for a memorial scholarship endowment for Nancy P. Morrisette to support students at the college based on need and relevant family circumstances. This brings their support to $50,203 to date. This new endowment is greatly appreciated.

James M. & Eleonore E. Stevens – an additional $35,000 for their Stevens Family Animal Assistance Endowment and Operating Funds. Including their scholarship funds, this brings their funds to $300,020 to date, supporting students, indigent animals, and providing a financial bridge so that more animals that can be saved, are.

W. R. Winslow Residuary Trust – an additional $31,929.18 in continued generous support of the W. R. Winslow Scholarships to support needy veterinary students in our college applying from Maryland, D.C., North Carolina, or Virginia without discrimination because of religious belief, nationality, or descent. This brings their generous support to $469,567 to date. We are very grateful for the many students helped.

Dr. Elizabeth A. Flanagan & Mr. H. Michael Mitchell - $31,500 to create an annuity to generously benefit the college. Unrestricted funds such as these are very important to embracing opportunities as they arise and we appreciate their provision.

Dr. Olive K. Britt & Jennifer Bell Newton - $25,000 to establish an endowed scholarship for fourth year students pursuing a career in equine medicine named in honor of Dr. Britt, a pioneer in equine practice.

Bayer Corporation – a generous $25,000 to support research in Equine Protozoal Myeloencephalitis. We appreciate Bayer's generous support of this and other important research totaling $71,660.

Mr. Robert Lee Beeman – $22,575 to endow the annual memorial scholarship in honor of his wife, Carolyn, a great lover of animals. We are honored to be a part of the her memory.

Dr. John G. and Doris J. Salsbury – an additional $20,000 to support the J. E. Salsbury Endowment for Veterinary Scholarships supporting senior veterinary students as well as those specializing in poultry medicine. This brings the endowment to $250,000 to date. It is a special pleasure to be able to so recognize a pioneer in veterinary medicine and vaccine development.

Anonymous – an additional $19,500 from a friend supporting equine research for a total support of $51,480 to date.

Ralston Purina Company - $15,000 to support the Veterinary Nutrition Support Service for a total of $50,000 support to date for this account in addition to an annual $1000 scholarship and other support totaling $70,600 to date.

Marion Bradley Via Memorial Foundation – another $12,000 to support the Peter L. Via Scholarship which is full support for three years for a DVM student who has distinguished themselves in the first year. This brings the total support to date to $31,000.

Miss Mary Leach – an additional $11,987.50 in continued loyal support of the endowed four-year, scholarships created in honor of her parents, Clarence and Gertrude Leach, to support DVM students interested in agricultural practice. This, the very first endowed scholarship in the college, now stands at $194,972.

Ms. Kindy French – an additional $10,000 in generous support of Dr. Mike Leib's Gastroenterology Research. This brings her total support of the College to $40,000 to date in memory of Barry and in honor of Savannah and Bonnie Blue.

Veterinary Pioneer Honored Through Professorship

One of the veterinary profession's pioneers in the field of corporate and veterinary medicine will be honored in perpetuity through the establishment of the "C.R. Roberts Endowed Professorship of Clinical Veterinary Medicine."

A $300,000 gift from his heirs will fund the endowed professorship, which is the first clinical position ever funded on the college's Blacksburg campus.

Clarence Roger Roberts was born in a rural community in upstate New York and graduated from the Cornell University College of Veterinary Medicine in 1922. After practicing veterinary medicine, he began a career in the dairy food industry.

He served as President of Sheffield Farms, and of National Dairy, which later became known as Kraft Foods. He also supervised 20,000 employees as President of Sealtest, the milk and ice cream division of National Dairy and Kraft.

When he began practicing in the early 1920's, he often accepted payment in chickens, eggs and potatoes as he made his way from farm to farm on a horse-drawn cutter during New York's snowy winters.

During a brief memoir published just prior to his death, Roberts reminisced about his career in veterinary medicine.

"I have always been proud of my profession and my background as a country boy," he said. "The number of veterinarians in corporate business has mushroomed tremendously since my retirement, but hopefully, I have helped pave the way for their acceptance and success."

Roberts took great pride in the achievements and contributions of his son, Kent, who followed him into the profession of veterinary medicine. Dr. Kent Roberts, one of the founding faculty members of the VMRCVM, served as president of the Virginia Veterinary Medical Association and the North American Veterinary Conference, one of the largest continuing education conferences in veterinary medicine.

Reflections

By Dr. Clarence Roger Roberts
(1900 - 2000)

Editors note: Dr. Roberts authored this memoir just prior to his death in 2000.

I was born and raised in the village of Holland Patent in upstate New York, near Utica. It was a farming community and my father, a true entrepreneur, had a farm, a meat market, and served as an appraiser and the village postmaster. There was a great deal of bovine tuberculosis in those days and my father appraised cattle condemned as TB reactors. He bought and sold cattle, and my job was to drive the cattle to the new owner's farm. I often drove cattle down the road for eight miles for one delivery. There were few trucks in the early 1900's.

With my farm background, I thought it would be appropriate that I become a veterinarian. My father was not in favor of this as he wanted me to stay home and help him with his various enterprises. My mother and I finally prevailed and I enrolled at Cornell University in September 1918. I was a member of the first veterinary class at Cornell to take a four year program of study as previous classes completed their veterinary education in three years. Classes were small (22 in mine) and 100% male.

My main problem was cash flow. I was being paid for my services in chickens, eggs and potatoes by my farmer clients. I routinely would charge $2.00 for a farm call. Physicians were charging $1.00 for an office call in our rural area, while house calls were usually $2.00.

The veterinary college at Cornell was founded in 1896 and many of the original faculty were still active and teaching while I was there. Men such as W.W. Williams, Veranus Moore, Grant Hopkins, Pierre Fish, and others.

My university class of 1922 had about 1,700 members of which fewer than 30 are alive today. None of my veterinary classmates survive and I believe that I am the oldest living Cornell veterinary college graduate at 99.

I earned much of my tuition and expenses by waiting tables in a girls' dormitory on campus. I played a snare drum in the university band and joined a veterinary fraternity.

When I graduated in 1922 an opportunity to practice in Morrisville, New York opened up and I moved there. My father died during my senior year at Cornell and my mother "kept house" for me in Morrisville. One of the fringe benefits was a job teaching basic animal health classes at the Morrisville Agricultural School to young farm boys who attended classes during the winter when there was less to do on the farm. This was a State of New York program and I taught three or four hours each week.

Winters in the central New York area where I practiced were rugged. It was not unusual to have three feet of snow in one snowfall. Snowplows were unknown and I kept three horses and a cutter to get around on farm calls in the winter. Often I would cut fences so I could drive my horses across the farm fields as the roads were impassable. It was hard, cold work. Sometimes the cutter would tip over and I would have to find my bag and instruments in the snow. Winter lasted from Thanksgiving to Easter, and I can remember taking a picture on a country road in my practice on May 10th with about ten feet of snow on the ground.

In good weather I used a 1923 Ford Model T, which cost me $300 brand new. It had three pedals; clutch, brake and reverse. I got balloon tires while I practiced in Morrisville. They were a great blessing on the roads of rocks and mud, often frozen hard.

I worked almost entirely on farm animals, horses and cattle, with an occasional dog. Few people had house pets as we know them today.

Mastitis and tuberculosis were major bovine health problems. Many cows were lost when small pieces of baling wire penetrated the anterior wall of the retriculum and caused pericarditis. We treated milk fever by inflating the cow's udder. The use of intravenous calcium was unknown. There were few reliable veterinary drugs in the 1920's and we had little to work with in treating our cases.

There were many so called "quacks" treating farm animals those days. They gradually lost their credibility and they were no problem in building my practice. My main problem was cash flow. I was being paid for my services in chickens, eggs and potatoes by my farmer clients. I routinely would charge $2.00 for a farm call. Physicians were charging $1.00 for an office call in our rural area, while house calls were usually $2.00.

In December 1923, I married a young lady from Kansas who had relatives in Morrisville and visited them over the Christmas holidays rather than take the long trip home from her school in Tarrytown, New York. We celebrated our 75th wedding anniversary in December 1998.

In August 1925 I had practiced in Morrisville for over three years and the cash flow was getting worse instead of better. We had a child on the way so I accepted a job with a New York City milk company, Sheffield Farms, in inspect their milk plants and dairy producers in the area around Norwich, New York. We moved to Norwich where our first child Kent (Cornell '51) was born.

I was paid $45 per week and had the use of a company car to travel in my territory. I would usually leave home on Monday morning and return home on Friday evening. I spent most of my working hours examining cattle, barn cleanliness and milk equipment. I eventually covered an area from northern New York to Maryland. Sheffield Farms was growing rapidly with its home delivery business. There were 3,000 horses stabled in New York City to pull the company's wagons.

Pasteurization had started just before I joined the company in 1925. Sheffield Farms brought in pasteurization equipment from Europe. People were suspicious of the pasteurization process and its' possible effect on the taste of milk. Consequently, there was still a large market for raw milk. Certified milk with the special sanitation and handling required was a popular product. It was unpasteurized and well accepted, especially for infants.

Emeriti faculty and college officials gathered at a luncheon held in Dr. Roberts honor on November 25, 1996.

In 1929 I started working in the company's sanitation department in New York City. This meant commuting from Norwich, so in 1930 I moved my wife and two children to Leonia, New Jersey – just across the Hudson River from New York City. There was no George Washington Bridge then, and I took the 125th Street ferry from New Jersey to the city each day.

I saw many changes in the milk business during my 40 years with Sheffield Farms and Sealtest Foods. The Great Depression, World War II, the elimination of home delivery, the introduction of paper milk cartons, the popularity of private label milk brands, to name a few.

In 1933 I was moved into the company's management to start dealing with the economics of the milk business. Sheffield Farms was bought by a holding company called National Dairy, which owned Kraft (cheese), Breyers (ice cream) and several other milk companies, including Chevy Chase Dairy in Washington, D.C.

There was a shake up in the company management about this time and the company began going down hill. I felt that I wanted to get out of New York City and away from management problems. I was advised to "keep my shirt on". About a month later I was named President of Sheffield Farms and I remained as President for ten years. We were able to increase the price of bottled milk and went from a sizable deficit to a $4 million profit in less than a year.

The President of Sealtest Division of National Dairy retired and I was asked to head this milk and ice cream business which was a national enterprise. We changed the named to Sealtest Foods and added other products to the milk and ice cream, such as cottage cheese.

I remained the President of Sealtest Foods until my retirement in 1965. Retirement was mandatory in those days on the first day of the month after your 65th birthday.

I saw many changes in the milk business during my 40 years with Sheffield Farms and Sealtest Foods.The Great Depression, World War II, the elimination of home delivery, the introduction of paper milk cartons, the popularity of private label milk brands, to name a few.

Sealtest had 20,000 employees when I took over and we had 16,000 when I left, but were doing much more business. We bought Dominion Dairies, the largest milk company in Canada, and an ice cream company in Puerto Rico. We were the first to deliver orange juice on home delivery routes.

I was one of the early veterinarians in corporate veterinary medicine and used my veterinary education to get started in the milk business. I have always been proud of my profession and my background as a country boy. The number of veterinarians in corporate business has mushroomed tremendously since my retirement, but hopefully I have helped pave the way for their acceptance and success.

Lynn Young
Assistant Director
Alumni Relations

ALUMNI SOCIETY NEWS

The VMRCVM Alumni Reunion was held on February 9, 2002 at Hotel Roanoke, in conjunction with the VVMA winter meeting, and over 50 alumni and friends attended. The reunion targeted the Classes of '87, '92, and '97. The Alumni Society raised approximately $1800 at the silent auction held at Hotel Roanoke. This money is seed money to begin an Alumni Society Scholarship Endowment. Richard Huneke '84 would like to invite other alumni to match his $200; he has donated twice to the fund. If you are interested in donating to this new endowment, please contact Development Director Frank Pearsall '84 at pearsall@vt.edu. **The next class reunion is planned for June 2003 and will target the classes of '88, '93, and '98;** however, all alumni are invited to the class reunion. An e-mail will be sent out to all VMRCVM alumni once the date is determined.

The Colleges of Agriculture and Life Sciences, Natural Resources, and Veterinary Medicine held joint alumni receptions in March 2002 in Winchester and Charlottesville.

On June 2, the Vet College held a picnic for alumni and freshmen in Rockville, Maryland at Cabin John Regional Park. Over 40 alumni, students and friends attended.
A VMRCVM alumni reception was held on July 13 in Nashville, Tennessee in conjunction with the AVMA Convention. Over 80 alumni and friends attended.

On August 23, two members of the Alumni Society, Drs. Mike Erskine '88 and Elizabeth Kirby '84 spoke to first-year students at orientation regarding networking opportunities for students at alumni events.

On September 27, the third annual Mentor-Mentee Program kicked off the new academic year at breakfast. Over 100 students and veterinarians participate in this program each year. We are in need of additional mentors. The ratio of students to mentors averages 3-4 students per mentor; however, the ratio should average 1-2 students.

Goals of the Mentor-Mentee program are:

- match students with enthusiastic mentors from the real world in the students' area of interest
- facilitate meetings with mentors at least once per semester
- foster lasting friendships among peers
- encourage student involvement in the VVMA and MVMA.

Expectations of mentors are to provide:

- enthusiasm for working with students
- advice and support to 1-2 students
- willingness to field phone calls from students and possibly host clinic visits
- meeting times with students at organized meetings or individually

If you are interested in serving as a mentor to a student for next year's program, which typically kicks off at the VVMA fall meeting in September, please contact Lynn at 540-231-5809 or e-mail her at youngl@vt.edu.

If you are interested in having your practice added to the alumni list on the VMRCVM alumni web site, please contact Lynn. The Vet hospitals and associated VMRCVM alumni provide a reference and a helpful tool for self-initiated student visits for seniors who are on rotation.

William (Bill) D. Tyrrell, Jr. '92 (sidebar) was selected by the VMRCVM to receive the Outstanding Young Alumnus Award for 2002-2003. Bill is currently a full-time cardiologist and co-owner of Chesapeake Veterinary Cardiology Associates with offices in Annapolis, Springfield, Baltimore, Leesburg, and Rockville.

Bill served a six-year term on the Virginia Tech Alumni Association Board of Directors, and is currently serving as President of the VMRCVM Alumni Society.

Dr. Bill Tyrrell

Dear Alumni Society:

I am excited to serve in this position and will continue to promote the six objectives of the VMRCVM Alumni Society Constitution and Bylaws which are: 1) To promote cooperation, communication, and foster goodwill among the alumni, faculty, staff, students, and friends of the College of Veterinary Medicine; 2) To encourage social and professional interaction at meetings throughout Virginia, Maryland, and the nation; 3) To promote activities which acquaint the public with the opportunities and values of veterinary medicine as a profession and career; 4) To encourage private giving to the College in establishing support of academic endowments, scholarships, and assistantships; 5) To participate actively in appropriate programs and activities of the Virginia Tech Alumni Association, and the University of Maryland Alumni Association; and 6) To serve as the parent organization for all alumni groups within the College of Veterinary Medicine.

Several events and a reunion is planned each year for VMRCVM alumni. If you are interested in serving as a representative from your class to assist in planning events and reunions, please contact me at wtyrrell@aol.com. I look forward to seeing many of you at events in the future!

Sincerely,

Bill Tyrrell '92, President
VMRCVM Alumni Society

2003 VMRCVM Calendar of Events

January 8	Colleges of Agriculture and Life Sciences, Natural Resources, and Veterinary Medicine tri-college alumni reception in Richmond
January 18-22	North American Veterinary Conference; Orlando, FL, http://flycapers.com/navc.htm
February 7-8	VVMA; Roanoke, VA, http://vavvma.org
March 4	Tri-College event at Southern Piedmont AREC in Blackstone, VA
March 5	Tri-College event at Reynolds Homestead Forestry Resources Research Center in Critz, Virginia
April 5	VMRCVM Open House
May 9	VMRCVM Graduation
June 13-14 (tentative)	VMRCVM Reunion
July 29-23	American Veterinary Medical Association Convention and VMRCVM Alumni Reception, Denver, CO; http://www.avma.org

Each of these events will provide you with an opportunity to interact with alumni. You will receive additional information prior to the event.

If you have any questions or comments regarding alumni events, please contact Lynn Young at youngl@vt.edu or 540-231-5809.

BE SURE TO CHECK OUT THE ALUMNI SOCIETY WEBSITE AT: http://alumni.vetmed.vt.edu.

Providing Support for Kosovo Force

By Major Kelley L. Evans

When I graduated from VMRCVM in 1995, I never dreamed in five years I would be an officer in the U.S. Army serving as the Task Force Falcon Veterinarian in Kosovo. From March to September 2000, I served as the officer in charge of a six-person veterinary services team that was deployed as part of Task Force Medical Falcon rotation 2 (TFMF2). The medical task force was responsible for providing surgical, medicine, dental, preventive medicine, laboratory, radiology, optometry, pharmacy, wards, medical supply, physical therapy, and veterinary service support for U.S. Forces deployed to Kosovo. My team was comprised of four enlisted food inspectors, one enlisted veterinary technician and myself.

Veterinary Services was responsible for Kosovo (Camp Bondsteel and Camp Monteith), the Former Yugoslav Republic of Macedonia (FYROM) (Camp Able Sentry), and northern Greece. Our main mission was to ensure all the food served to US Forces was safe and met our standards. That included inspecting shipments of food that originated in Germany, Italy, and the U.S., as well as inspecting local commercial food plants in Kosovo, FYROM, and northern Greece. This proved to be a continual challenge due to the transportation time for food to arrive and the heat of summer. One interesting inspection that we performed early in our rotation was to inspect approximately 3400 lbs. of food that was confiscated during a raid on a house that contained weapons and ammunition. As one of my food inspectors and I sorted through various cans of different beans and other vegetables, tins of fish, and bags of rice and flour, 1400 lbs. were not fit for human consumption, and 2000 lbs. were returned to the local population. We also inspected over 172 metric tons humanitarian daily rations for the United Nation's World Food Program to ensure that these meals were safe to feed refugees in several different countries.

Another part of our mission was providing veterinary care to over 50 military working dogs from seven different NATO nations to include the United Kingdom, Finland, Norway, and Austria and 15 Mine Detection Dogs from Canada and Zimbabwe. One interesting case was a Finnish military working dog named Holle. Holle, a German Shepherd, was attacked by another Finnish military working dog during training. When Holle arrived at Camp Bondsteel, his temperature was 106°, his pulse was 60 and weak, and his respiration rate was 24 and shallow. A Finnish veterinarian had given him acepromazine for the trip to Camp Bondsteel due to his fractious nature. His left front paw had a deep laceration that exposed the tendons in the metacarpal region and was potentially broken. We immediately treated him for heat stroke and called radiology and the lab to inform them that we had a patient that needed their services. After 30 minutes, his temperature was 104 and falling, and we transported him to radiology. Survey radiographs revealed several breaks in P1 of digit 4 and a dislocated 5th digit of between P1 and P2. Since Holle was still in a sedated state, I performed a closed reduction of the 5th digit. We then transported Holle back to the vet clinic. After clipping, carefully exploring, and cleaning the laceration, I sutured the laceration and bandaged and splinted the fracture. We started him on injectable ampicillin and instructed that the handler change the bandage once a day with strict cage rest. In three weeks, we re-examined and re-radiographed his paw. The speed of healing was amazing, and by the end of six weeks, the laceration was fully closed and the fracture healed. The Finnish kennel master told me before I left that if Holle had not healed, he would have been euthanized.

The six months I spent in Kosovo were the most memorable and exciting of my life. We worked long hours and something out of the ordinary happened every day. The interaction with multiple nations' forces was an incredible experience. Only in the U.S. Army Veterinary Corps could such an experience become reality.

Dr. Kelley Evans has had a varied career in the military. Her first assignment in the Army was Fort Dix/McGuire Air Force Base in New Jersey where she covered the southern New Jersey and eastern Pennsylvania area, including the Philadelphia Supply Point which exported over $4 million of food a month. She also was responsible for Lajes Field, Azores, Portugal. She then worked with the 72nd Medical Detachment (Veterinary Services) in Geibelstadt, Germany, where she held various staff positions including deputy commander and operations and training officer before she was deployed to Kosovo.

Stuart Research Funds Beginning to Generate Dividends

The goal of the research is to reduce the morbidity and mortality from colic, the leading killer of horses. In this clinical case, surgeons attempt to resolve a blockage in the small intestine of a horse, which can be from 40 to 60 feet long. About 70% of colic surgeries involve the large intestine and about 30% involve the small intestine, according to Dr. Nat White, the Theodora Ayer Randolph Professor of Surgery.

Colic remains the leading killer of horses, and though well-studied in recent years, much about the disorder remains enigmatic.

Colic involves blockages or twists of the horse's gut, according to Dr. Nathaniel White, the Theodora Ayer Randolph Professor of Equine Surgery at the EMC.

When a horse has colic, veterinarians generally administer analgesics to relieve intestinal discomfort and laxatives like mineral oil to help eliminate the blockage. Some horses require surgery, and about six to seven percent of horses that have colic will die.

Funding for the work has come from a $2.7 million bequest left to Virginia Tech by the late Mrs. Patricia Bonsall Stuart, who died in 1996. The gift was divided equally between the VMRCVM and the College of Agriculture and Life Sciences.

But thanks to research funded by grants from the estate of the late Patricia Stuart, researchers at the Marion duPont Scott Equine Medical Center are making some important discoveries about what causes colic and finding better ways to treat it.

Researchers know that hydration of the horse and its intestine is related to colic, and that hydration can be affected by diet. But in a significant finding supported by the Stuart funding, White and colleagues have determined that dietary grain affects colonic hydration.

"When you switch feeding from hay only to hay and grain, water content decreases significantly," said White, who is regarded as one of the profession's leading colic researchers. "These are significant changes that we believe are important to gut function. I consider this to be a major finding."

White believes that when grain replaces the forage amount, dietary fiber is reduced and because water binds to fiber, water in the colon is decreased when feeding grain.

"This work is resetting the stage for what will be the next step in finding the relationship between diet and colic," he added.

In a related part of the work, researchers determined that the most effective laxative for increasing the water content of the colon is the rapid oral administration of an electrolyte solution which is similar to the electrolyte concentrations in blood.

Compared to other laxatives such as magnesium sulfate or sodium chloride, the balanced electrolyte solution does not affect the horse's electrolyte balance while hydrating the colon contents.

In another project undertaken with Stuart funding, researchers discovered that colic is associated with certain molecular characteristics of cellular death.

Scientists know that cells die in two ways. Apoptosis is the term that describes how cells are pre-programmed to die. These cells die "naturally" as part of normal growth processes. Necrosis is cellular death through disease or trauma.

Working with White, Ph.D student and surgical resident Emma Rowe determined that apoptosis was occurring in intestine of horses with colic.

The researchers noted that during a strangulation event that caused some tissue ischemia, cells released cytokines that stimulate inflammation. These cytokines also turn on a cascade of enzymes in the nucleus of cells that induce apoptosis.

"If we can figure out a way to stop apoptosis, we can reduce the morbidity from colic," said White. "This opens up a whole new area to study in horses with colic."

The work has been recently reported at prestigious scientific meetings including the American College of Veterinary Surgeons' Annual ACVS Symposium and the international Equine Colic Research Symposium which was put on by the British Equine Veterinary Medical Association.

Future work will look at ways to inhibit the cellular events that lead to apoptosis, White said.

Funding for the work has come from a $2.7 million bequest left to Virginia Tech by the late Mrs. Patricia Bonsall Stuart, who died in 1996. The gift was divided equally between the VMRCVM and the College of Agriculture and Life Sciences.

Pat and her husband Herbert, who died earlier, were avid horse-people and breeders of Arabian horses. They owned and operated a 200-acre farm near Batesville in Albemarle County.

She was active in the Virginia Horse Council and the American Horse Council.

Dr. G. Frederick Fregin

Fregin to Retire

Dr. G. Frederick Fregin, the Jean Ellen duPont Shehan Professor and Director, Marion duPont Scott Equine Medical Center, has announced that he will retire from the position in Summer 2003.

Fregin, who was the first employee hired at the Center in 1983, has presided over the center's establishment as a world-class equine hospital.

"The name Fred Fregin is almost synonymous with the name Equine Medical Center," said Peter Eyre, dean, VMRCVM. "It would be impossible to overstate the role that Fred has played in building the center and the college into what they are today."

Fregin, who earned his DVM from the University of Pennsylvania, served at Penn's New Bolton Center and the New York State College of Veterinary Medicine at Cornell University prior to joining the college.

His professional acumen, cheerful demeanor and administrative skills have proven useful as he guided the center's growth and development as a unique public-private partnership that is partially funded by donations from the private sector and clinical revenues with some state support.

"Fred has made a lasting contribution to this nation's horse industry in his own inimitable way," continued Eyre. "We wish him well with his future endeavors, and express our enduring gratitude for his magnificent accomplishments."

Fregin plans to join his wife Laura in Texas, where she is in divinity school. A national search is underway to find his successor.

During August, several members of the Equine Medical Center Council as well as university and college representatives attended the races and Thoroughbred yearling sales in Saratoga, New York as well as a reception for the Equine Medical Center hosted by Miss Beverly R. Steinman. Standing under the Maryland-based Green Willow Farms' sign are Council Member Shelley Duke, Doug Ingram, Phil Duke, Council Member Cindy Ingram, VMRCVM Dean Peter Eyre and Virginia Tech President Charles Steger.

Maryland Horse Industry Board Tours EMC

Members of the Maryland Horse Industry Board recently visited the Marion duPont Scott Equine Medical Center. Dr. G. Frederick Fregin and Dr. Martin Furr led the group on a tour of the hospital including a stop at the newest facility, the James P. Mills Diagnostic Treadmill Building, to watch a horse at work on the treadmill. Dr. Ken Sullins reviewed a video to demonstrate how a horse's upper airway may be examined endoscopically for problems that may be surgically corrected. Following the tour, Chairman Gregory W. Gingery held a board meeting in the library.

The Equine Medical Center serves horse owners in Virginia, Maryland and across the Mid-Atlantic region. Board Members were interested to learn that the Center's veterinarians see approximately 2,400 patients a year, and in the last five years 34% of these cases have come primarily from Washington, Howard, Frederick, Baltimore and Carroll counties in Maryland.

The Maryland Horse Industry Board was created in 1998 to replace the State Board of Inspection of Horse Riding Stables. Its purpose is to promote the horse industry in Maryland and to license boarding and rental facilities in the state. In spring 2002, the Board was successful in advancing an assessment of $2.00 per ton of horse feed (five cents per 50 pound bag) that will help the Maryland Horse Industry Board fund promotional activities and support equine-related research. The Board also is overseeing Maryland's first horse census.

A surgical team at the Marion duPont Scott Equine Medical Center conducts an emergency colic surgery. Discoveries made through research supported by the $2.7 million Stuart bequest to Virginia Tech may help reduce the risk of colic, the leading killer of horses.

Equine Medical Center Hosting "Tuesday Talks" Lecture Series

The Marion duPont Scott Equine Medical Center will again host its winter "Tuesday Talks" lecture series. These informal lectures feature Equine Medical Center faculty and guest speakers discussing topics of interest in equine veterinary medicine.

This year's series features four lectures and focuses on factors in performance.

"Using the Equine Treadmill to Diagnose Causes of Poor Performance" was presented by Dr. Celia L.M. Goodall and Dr. Kenneth E. Sullins in December.

"Treating Lameness – Maximizing Performance" was presented by Dr. Nathaniel A. White, II, the Theodora Ayer Randolph Professor of Equine Surgery, in January.

"The Promise of Equine Genomics" will be presented by Dr. Doug Antczak of The Baker Institute for Animal Health at Cornell University on February 25.

"Airway Inflammation and Performance" will be presented by Dr. Virginia Buechner-Maxwell, associate professor, Department of Large Animal Clinical Science, on March 25.

Lectures begin promptly at 7:00 p.m. at the Equine Medical Center's James P. Mills Diagnostic Treadmill Building. No fee is charged for the lectures, but seating is limited and reservations are required.

More information is available from the "educational opportunities" link at equinemedicalcenter.net. To be included in the Center's continuing education mailing list, call Ann Nadjar at 703-771-6843 or e-mail anadjar@vt.edu.

Referring veterinarians from Virginia, Maryland and West Virginia joined Equine Medical Center faculty for a roundtable discussion on "The Referral: A Partnership for Excellent Patient Care" held at the EMC on August 13. Dr. Michael Erskine (left) a VMRCVM alumnus and EMC Council Member coordinated the meeting and served as the moderator. Next to Dr. Erskine, left to right, are Professor Nat White, Resident Richard Hepburn, Instructor Harold McKenzie, referring veterinarians Michael Tanner and Carol Sabo, and Associate Professor Martin Furr. Panelists and attendees discussed the referral process, the roles and challenges of referring and receiving clinicians, and ways in which communication among veterinarians and clients may be enhanced.

New Resident Interns Join Equine Medical Center's Clinicians

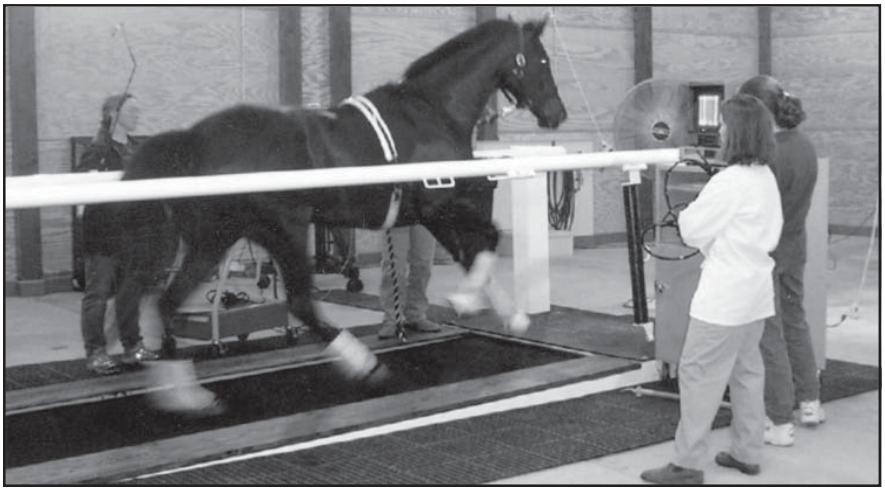
Dr. Lucas Guillermo Pantaleon has joined the Equine Medical Center staff as a resident in equine internal medicine. Dr. Pataleon received his doctor of veterinary medicine from the University of Buenos Aires, Argentina in 1999. He served an externship at Fairmont Veterinary Clinic in Fairmont, Minnesoto in 1998, and practiced veterinary medicine in Buenos Aires, Argentina in 1999 and 2000. He was a veterinary assistant for Dr. Walter Zent and Dr. Fairfield Bain at Hagyard-Davidson-McGee in Lexington, Kentucky in 2001 and 2002 where he developed an interest in equine internal medicine and reproduction.

Dr. Roman Braun, intern in equine medicine and surgery, received his Doctor of Veterinary Medicine from the Hannover Veterinary School, University of Hannover, Germany, in June of 2002. He served externships in Germany, Ireland, New York, New Jersey, and Kentucky in 2001. His interests are in equine orthopedics and research.

Dr. Judith Hahnefeld, intern in equine medicine and surgery, received her Doctor of Medicine from the Hannover Veterinary School, University of Hannover, Germany in November of 2001. She served externships in Germany and South Africa. She is currently working on a doctorate thesis on research in lymphology. She is interested in equine medicine, surgery and reproduction.

Dr. Nadine Metzger, intern in equine medicine and surgery, received her Doctor of Veterinary Medicine from the Veterinary School of the University of Zurich, Switzerland in November of 2001. She served a six-month internship at Ohio State University Veterinary Teaching Hospital. Her main interest is equine internal medicine and critical care, specifically neonatology and perinatology. An additional interest is imaging method techniques.

Dr. Harriet Thompson, intern in equine medicine and surgery, received her BA from Jesus College, University of Cambridge, England, in 1999 with First Class Honours. She received her VetMB from Jesus College, University of Cambridge, England, in July 2002. She served an externship at Colorado State University in 2001. Her interest is in equine reproduction.



A horse is evaluated in the EMC's new treadmill facility. The treadmill is useful in assessing respiratory, cardiac, lameness and performance problems.

Treadmill Service Underway at Equine Medical Center

In April 2002, the new James P. Mills Diagnostic Treadmill Building at the Marion duPont Scott Equine Medical Center launched its service to evaluate equine respiratory, cardiac, lameness and performance problems. All evaluation packages include: a preliminary lameness evaluation; introduction of the horse to the treadmill with followup schooling; and the actual highspeed treadmill stress test.

Costs for basic videoendoscopy of the upper airway on the treadmill start at $500. Additional charges, for ECG and echocardiography, blood gases, muscle enzymes, thermography or radiography would be added as determined by the patient's history. The Equine Medical Center offers five different evaluation packages with the most extensive examination available on our treadmill at a total cost of $1,353. The basic treadmill endoscopy evaluation performed in the James P. Mills Diagnostic Treadmill Building takes about half a day, while an extensive performance workup requires an entire day.

For more information or to schedule an evaluation, call the Equine Medical Center at 703-771-6800.

Irwin Uran Makes Generous Contribution to the Equine Medical Center and Encourages Others to Give

Mr. Irwin W. Uran has made a generous donation of $25,000 to the Marion duPont Scott Equine Medical Center. In a letter to the Center, Mr. Uran specified that his gift was given to support the operation of the hospital. He expressed his hope and desire that the Center employ a diverse group and encourage minorities in the field of veterinary medicine.

A former Leesburg resident, Mr. Uran has provided significant programmatic support to the Equine Medical Center over the past several years. With this and other recent contributions, he has asked that his gifts receive publicity "in the hope that others will donate to your Hospital as much – or as little – as they can."

"Mr. Uran's thoughtful generosity has benefited so many in our community," said Dr. Fred Fregin, Jean Ellen Shehan Professor and Director of the Equine Medical Center. "His contributions have helped the Equine Medical Center provide 24-hour-a-day service to thousands of sick and injured horses and enabled us to respond to the hospital's increased emergency caseload. Mr. Uran's gifts also have made it possible to acquire the latest state-of-the-art medical equipment and to train our staff in its use. We are deeply appreciative of his continuing support and his compassion for our equine friends and the people who care for them."

Names in the News From EMC

David Adam-Castrillo, resident, served as a surgery consultant at the World Equestrian Games held in Jerez de la Frontera, Spain, in September 2002.

Marco A. F. Lopes, Ph.D. student, presented "Treatments to promote colonic hydration: Enteral fluids, IV fluids, magnesium sulfate and sodium sulfate," at the Seventh Equine Colic Research Symposium in Manchester, England. Dr. Lopes also presented five poster sessions: "Hydration of colonic ingestia in fistulated horses fed hay and hay and grain," "Parenteral nutrition for horses with gastrointestinal disease: A retrospective study of 79 cases," "Treatments to promote colonic hydration: Enteral fluid therapy versus IV fluid therapy and magnesium sulfate," "Enteral fluid therapy: Slow infusion versus boluses," and "Experimental fistula of the right dorsal colon in horses."

Emma L. Rowe, resident, presented "Detection of apoptotic cells in intestine from horses with colic" at the Seventh Equine Colic Research Symposium in Manchester, England.

Dr. Kenneth E. Sullins, made.four presentations at the Central Veterinary Conference in Kansas City: "Laser Physics and Safety," "Laser Tissue Interaction," "Lasers in General Surgery," and "Lasers in Endoscopic Surgery."

Dr. Nathaniel A. White II, Theodora Ayer Randolph Professor of Surgery, was a program coordinator and on the program committee for the Seventh Equine Colic Research Symposium in held in Manchester, England. He was also the co-editor of the special issue of the *Equine Veterinary Journal* which was dedicated to scientific papers on colic from the meeting. Dr. White also presented a paper, "Decision for surgery and the rectal examination in horses with colic" at the British Equine Veterinary Association meeting held in Liverpool, England.

Fellowship students had many interesting experiences in the Washington, D.C. area. Here, they pose with the Honorable Ann Veneman, Secretary of the United States Department of Agriculture (center). From left, Andrea Henderson, Lisa Martin, Veneman, Michael Childress, Associate Director-Center for Government and Corporate Veterinary Medicine Dr. Ted Mashima, and Allison Wack.

Summer Fellowship Students Focus on Bioterrorism

Four students from the VMRCVM spent eights days in the metropolitan Washington D.C. area gaining a greater appreciation of the role veterinary medicine plays in protecting the nation from bioterrorism.

The students, all participants in the Summer Fellowship Program in Science, Technology and Public Policy Issues in Veterinary Medicine, focused on bioterrorism, agri-terrorism, and biosecurity during two of the eight weeks they spent in an academic program designed to help veterinary students understand the modern public policy implications of the veterinary profession.

During their first day on Capitol Hill, they watched The Honorable Ann Veneman, Secretary of the United States Department of Agriculture, and The Honorable Tom Ridge, Director of the Office of Homeland Security, testify before the Senate Committee on Agriculture, Nutrition and Forestry Full Committee Hearing on Homeland Security.

Afterwards, the group had a chance to meet with Veneman and Dr. John Melcher, a veterinarian and former Montana Senator who delivered the keynote address during the VMRCVM's 1987 Dedication Ceremony at Virginia Tech in Blacksburg.

During the ensuing days, the group met with almost 30 other government and corporate officials during the fellowship experience that was themed around the production of a web-site entitled "Bioterrorism: A Primer for Veterinary Students, By Veterinary Students."

That agenda included meetings with leaders of the American Veterinary Medical Association, the United States Department of Agriculture, the United States Department of Health and Human Services, the United States Department of the Interior, and the Maryland Department of Natural Resources.

The group also attended an inter-agency meeting on West Nile Virus that included representatives from the Maryland Department of Natural Resources, the Maryland Department of Agriculture, and the Maryland Department of Health and Mental Hygiene.

The group also spent a day visiting the University of Maryland's Salisbury Campus where they heard a number of presentations concerning the implications of bioterrorism and biosecurity on the vast poultry production facilities situated on Maryland's Eastern Shore.

That experience included presentations from faculty members and representatives from Perdue Farms, Inc., as well as a tour of the University of Maryland Eastern Shore Poultry Research Farm.

On the final day of the Maryland-based portion of the fellowship, the students met with Lieutenant Colonel Donald L. Noah, a veterinarian with the Office of the Assistant Secretary of Defense for International Security Policy at the Pentagon.

Nutramax Laboratories, Inc. and the National Aquarium in Baltimore also provided cooperative programming with the Summer Fellows program.

Dr. John Brooks

Brooks Named to Maryland Ag Post

Dr. John Brooks, a bulwark supporter of veterinary medicine, the regional college and agriculture, has been named Deputy Secretary of the Maryland Department of Agriculture.

Brooks is a long-time advocate and member of the college's Advisory Board. He has played a key role in securing legislation in Annapolis that has fortified the regional foundations of the college and promoted its successful development.

"John has been a dedicated and persuasive advocate for the regional college for the past 15 years," said VMRCVM Dean Peter Eyre. "We're extremely grateful for all he has done for us and wish him luck and success in this new endeavor."

Brooks has served as Vice-Chair of the Maryland Agricultural Commission and provided national leadership for the veterinary profession through service on the American Veterinary Medical Association's House Advisory Committee.

Brooks owns Fork Veterinary Hospital in Kingsville, Maryland, and operates a small cow-calf operation on a working farm. His practice serves dairy, beef, swine, small ruminants and horses.

In recognition of his meritorious service, Brooks was inducted into the John N. Dalton Society, the most prestigious honor that the college can bestow. Brooks is also a Founding Adjunct Member of the VMRCVM Alumni Society.

In addition to service on the VMRCVM Advisory board, Brooks serves on the Advisory board to the Dean of the University of Maryland College of Agriculture and Natural Resources.

Brooks earned his DVM from the University of the Philippines College of Veterinary Medicine, where he worked with the U.S. Embassy to elevate food animal veterinary medicine in that country.

Names in the News From the Maryland Campus

Dr. Siba Samal attended the American College of Veterinary Microbiologists' CRWAD meeting in St. Louis, along with his newest graduate student, **Dr. Govindarajan Dhanasekaran**, who presented a paper entitled, "Induction of Apoptosis by Newcastle disease virus Correlates with Virulence."**Dhanasekaran** was presented the "Outstanding Graduate Student Presentation" award at the meeting.

Dr. Nathaniel Tablante, Extension Poultry Veterinarian, Maryland Campus, was recently awarded a $35,629 grant by the U.S Poultry and Egg Association (USPEA) to determine the most effective method of in-house composting of catastrophic poultry mortalities. The six-month study will simulate a catastrophic event like an Avian Influenza (AI) outbreak which requires depopulation of thousands of chickens or turkeys. Processing plant DOAs will be trucked to a commercial broiler house that is not in production and will be composted in-house using six different methods. The study was considered timely and important by the USPEA, a national poultry industry organization, in light of the recent AI outbreak in Virginia where disposal of carcasses from depopulated flocks became a big problem, which may have led to the spread of the disease. In-house composting appears to be a suitable alternative to burial, incineration, transport to landfills, or outside composting because it is more biosecure. However, this method has not been fully investigated.

Dr. Tablante also presented two papers recently. The first was entitled "Investigation of sub-clinical infectious bursal disease in broiler farms with a history of production and disease problems" and was presented at the annual meeting of the American Association of Avian Pathologists (AAAP) in Nashville, Tennessee last July. He also presented a poster entitled "A web-based biosecurity training program for the poultry industry." In addition, Nathaniel served as one of the session moderators during the meeting. The second paper was entitled "The effects of perches and stocking density on tibial dyschondroplasia and bone integrity as measured by bone ash in broiler chickens," and was delivered at the 91st Annual Meeting of the Poultry Science Association in Newark, Delaware.

The Aquatic Pathobiology Center program, directed by **Dr. Andrew S. Kane** at the College Park campus, focuses on environmental pathology and toxicology of aquatic and marine organisms with emphasis on Chesapeake Bay fauna and captive fish species. Ph.D. candidate J**im Salierno** has won two awards for his behavioral toxicology research presentation on behavioral alterations in laboratory-exposed killifish. Additional projects underway at the APC include development of a revised "FishGuts" fish anatomy and necropsy training software package, comparative techniques to detect mycobacteriosis in Chesapeake Bay striped bass, and examining the effects of harmful algal biotoxins on fish brain activity measured by c-fos induction. Additional information about the APC can be found online (http://aquaticpath.umd.edu).

Dr. Suman Mukhopadhyay's lab has had a paper accepted in *Molecular and Cellular Biochemistry*. The paper is entitled "The bacterial adaptive response gene, barA, encodes a novel conserved histidine kinase regulatory switch for adaptation and modulation of metabolism in *Escherichia coli*."

This same lab presented a poster at the University of Maryland Bioscience Day on the College Park campus. This poster is entitled, "The bacterial adaptive response gene, barA, is a global virulence factor regulating motility, attachment and survival in *Escherichia coli*.2003." Those responsible for the project include Sharmistha Acharya, Isha Patel, Helina Tuminaro and Suman Mukhopadhyay.

Dr. Mulkhopadhyay's lab also presented a poster in an invited seminar at the "Mid-Atlantic Microbial Pathogenesis Meeting at Wintergreen Resort in Virginia. The title of the talk and the poster by Sahu was "The bacterial adaptive response gene, barA, is a global virulence factor *in Escherichia coli* 2003," and is based on current research by Surasri Nandan Sahu, Sharmistha Acharya, Isha Patel, Helina Tuminaro and Suman Mukhopadhyay.

In addition to his ongoing research, presentations and papers, Suman is serving as an *ad hoc* reviewer for *Molecular and Cellular Biochemistry*,

UMCP Unveils New Equine Studies Web Site

The University of Maryland has launched a new Equine Studies web site, www.equinestudies.umd.edu.

The Equine Studies program is part of a joint effort between the Animal and Avian Science Department, Institute of Applied Agriculture and Maryland Cooperative Extension to provide a comprehensive equine science and management curriculum for students at the University of Maryland and for the members of the Maryland horse industry.

The University of Maryland underwent a major initiative in 2001 to strengthen its equine program, which has resulted in two new faculty and a new two-year Equine Business Management Certification program.

The Equine Studies web site highlights UM's two and four-year academic programs, adult and youth extension horse programs, faculty and staff, information for current and prospective students, UM horses and facilities and news and announcements.

It also features links to informative equine publications and Maryland horse industry sites. The web page was made possible by the generous support of the Maryland Horse Industry Board.

New Faculty

The Maryland Campus of VMRCVM is pleased to welcome two new faculty members to its ranks**. Dr. Xiaoping Zhu**, a Molecular Immunologist currently involved in post-doctoral work at Harvard Medical School, will arrive in College Park in early February 2003.

Dr. Daniel Perez, a Molecular Virologist, will join the unit in early March 2003.

For the past two years, Dr. Perez has been working with Dr. Robert G. Webster in the area of influenza viruses.

On a sadder note, the entire College was devastated this past summer by the sudden death of **Sukanta Dutta**, Professor Emeritus. Dr. Dutta gave his life to his research and to the VMRCVM. He was a dedicated researcher, never happier than when he was engrossed in his lab work. Sukanta was also a good friend of many of us at all three campuses. He is sorely missed and fondly remembered.

Eyre: Continued from page 1

They sponsored the "KPMG MegaStudy," a landmark assessment of the profession of veterinary medicine which has provided a platform for change and created a major national dialogue on how the profession of veterinary medicine can best meet the 21st century needs of society.

... he made a major address on curricular tracking at a meeting of the Canadian Veterinary Medical Association. In it, he suggested that veterinary medicine may eventually follow the path to sub-specialization that engineering did as it split into individual academic disciplines such as electrical, civil, and mechanical engineering.

Those three organizations also created the National Commission on Veterinary Economic Issues (NCVEI), a Chicago-based organization that is coordinating a number of programs designed to improve the business operations of community based veterinary practices around the nation and drive curricular change in veterinary academia that will produce more business and communication savvy practitioners.

The VMRCVM is playing a significant role in several of those initiatives. One of those is a major research effort coordinated by Minneapolis-based management consulting firm Personnel Dynamics, Inc. PDI, which held a major symposium on the VMRCVM's College Park, Maryland campus in early 2002, is using empirical techniques to identify personality characteristics and traits that are associated with success in veterinary medicine. Once established, those criteria can be factored into the veterinary admissions process and career tracking.

Eyre has also made numerous presentations on curricular change at a number of state and national veterinary association meetings. Most recently, he made a major address on curricular tracking at a meeting of the Canadian Veterinary Medical Association. In it, he suggested that veterinary medicine may eventually follow the path to sub-specialization that engineering did as it split into individual academic disciplines such as electrical, civil, and mechanical engineering.

The VMRCVM's Center for Government and Corporate Veterinary Medicine has been gaining a great deal of national attention in the post September 11 world because the public is realizing that veterinary medicine plays a major role in preventing bioterrorism and fostering public health, Eyre said.

Eyre, who chaired the search committee that successfully recruited Virginia Tech Provost Mark G. McNamee, is also serving as chair of the search committee to recruit a new Dean of the College of Agriculture and Life Sciences at Virginia Tech.

Eyre was named dean of the Virginia-Maryland Regional College of Veterinary Medicine in 1985. During his tenure as dean, Virginia-Maryland has emerged as the nation's leading institution for preparing veterinarians to serve society's growing veterinary medical needs in industry and government.

He has served on the board of directors of the Association of American Veterinary Medical Colleges, on the American Veterinary Medical Association's Council on Government Relations and Legislative Advisory Committee, and has provided leadership for many other professional associations, including the American Academy of Veterinary Pharmacology and Therapeutics.

Agenda:

Continued from page 1

Dr. Gerhardt Schurig

As Virginia Tech assembles the consortiums, inter-collegiate initiatives, and external partnerships that will create critical mass for the university's journey to Top 30 status, the veterinary college is emerging as a major resource. The strong relationships that the college enjoys with government agencies and research centers in the metropolitan Washington D.C. area are providing fertile opportunities for collaboration.

"The linkages between human medicine and veterinary medicine are more visible and more functional than ever before," said Eyre. "We have strong expertise in the structural foundations of the biomedical sciences and that's a platform resource for many of our university's emerging research initiatives."

"Our plan is to focus on key strengths. We have substantial expertise in basic areas like infectious diseases, application of biomedical engineering, toxicology, particularly neurotoxicology, and selected aspects of nutrition and food safety. We believe we can be an important part of the consolidated approach to research that is taking shape here at the university, and we plan to do our part."

- Dr. Gerhardt Schurig

As a result, immunologists, bacteriologists, vascular physiologists, surgeons, pathologists, toxicologists and other specialists on faculty in the college are joining university colleagues in the life and physical sciences on innovative new programs like the Natural Sciences Consortium and the School of Biomedical Engineering and Sciences jointly operated by Tech and Wake Forest University.

But those collaborations are just the beginning. In association with life sciences researchers in the Fralin Biotechnology Center and the Virginia Bioinformatics Institute, veterinary college scientists are part of the Virginia Tech Institute for Critical Technologies (VTICT), an enterprise-wide organizational research unit (ORU) which will focus the resources of a dynamic cluster of scientific disciplines on critical problems facing society in health, transportation, energy, advanced materials, and information technology.

"Our plan is to focus on key strengths," said Schurig."We have substantial expertise in basic areas like infectious diseases, application of biomedical engineering, toxicology, particularly neurotoxicology, and selected aspects of nutrition and food safety. We believe we can be an important part of the consolidated approach to research that is taking shape here at the university, and we plan to do our part."

The VMRCVM is coordinating a major interdisciplinary program that teams scientists from across the university in a research collaboration known as the Food, Nutrition & Health Initiative. Among other topics, FNH is developing risk management strategies for bioterrorism and teaming with bioinformatics researchers to examine how human genomics and nutrition interact to promote health or disease.

The college's Center for Comparative Oncology (CeCO) is another transcollegiate initiative that is organizing the several dozen Virginia Tech researchers who are conducting cancer research into a cohesive unit that is working closely with the American Cancer Society and Carilion Medical Systems.

Those initiatives are forming on top of an already rapidly developing research program. Scientists in the college's Center for Molecular Medicine and Infectious Diseases are conducting internationally recognized work in immunology, including work for the U.S. Army that is focused on developing vaccines for anthrax and other dangerous pathogens considered a biothreat to animal and human health. Other faculty members are investigating areas ranging from Gulf War Illness to canine orthopedics.

"During the 80's and 90's we focused on the development of our DVM curriculum and clinical programs," said Eyre. "Clearly, our progress in this first decade of the 21st century will be defined by the strategic growth of our research and Ph.D. programs."

Immunology:

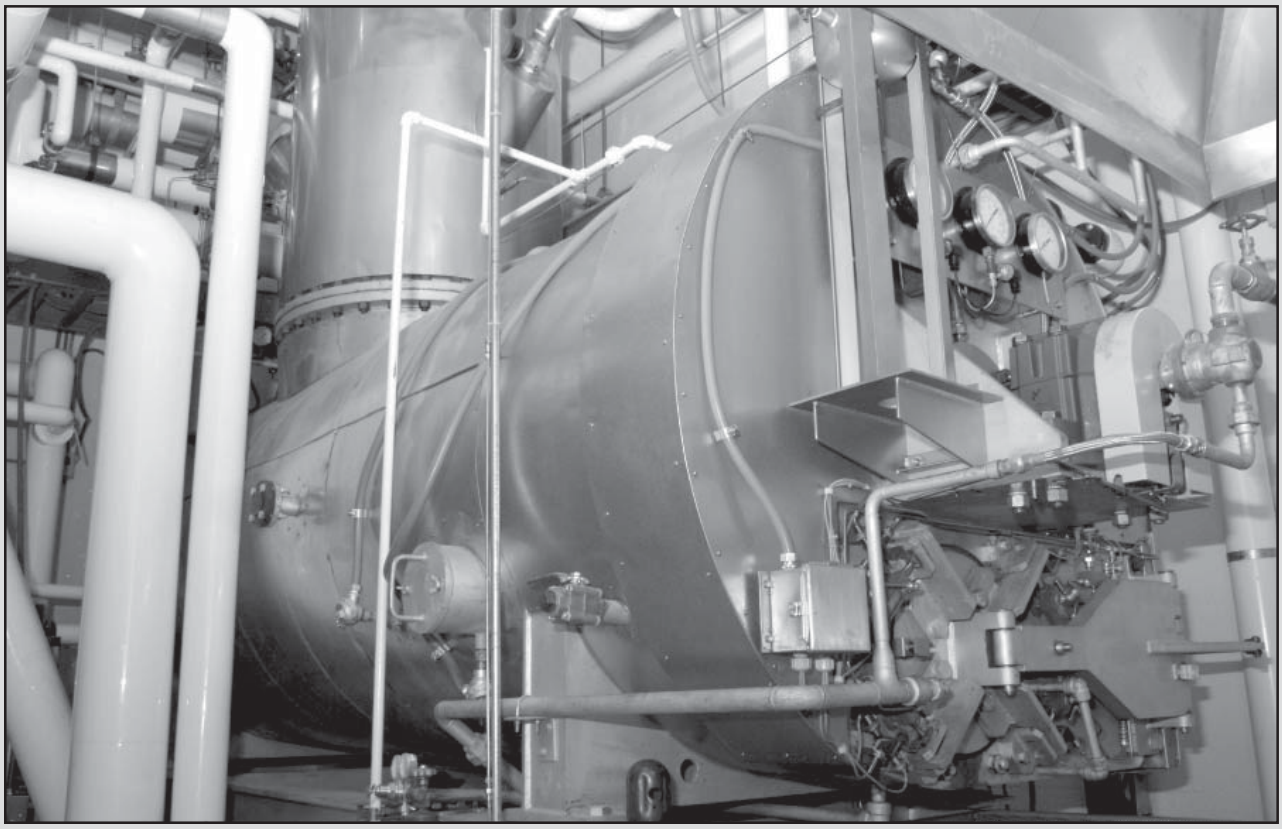
Continued from page 7

participated in the conference and helped host the event.

Faculty members from the VMRCVM's Center for Molecular Medicine and Infectious Diseases making presentations on various aspects of immunology and vaccine development included Dr. Ansar Ahmed, professor, Department of Biomedical Sciences and Pathobiology (DBSP); Dr. Stephen Boyle, professor, DBSP; Dr. Nammalwar Sriranganathan, associate professor, DBSP; Schurig; and Dr. Yasuhiro Suzuki, assistant professor, DBSP.

Dr. Bruno Sobral, who heads the Bioinformatics Institute at Virginia Tech, and colleague Dr. R. Kruzelock, also made presentations at the conference.

Scientists representing universities that Virginia Tech has established formalized research partnerships with also made presentations. Dr. Thomas Maeder represented the Georgetown University Medical School, Dr. Dianne Griffin represented the Bloomberg School of Public Health at Johns Hopkins University, and Dr. Kevin High represented the Bowman Gray School of Medicine at Wake Forest University.



EMBRACING INNOVATION... Virginia Tech is putting the finishing touches on a novel 4,000 square foot organic waste processing facility that eliminates the air pollution hazards associated with incineration and minimizes waste-stream volume. During the dry rendering process, carcasses and bedding are placed in a specially designed chamber, agitated and heated by high temperature, high-pressure steam. Dry rendering transforms the material into sterile liquid and solid components that can be safely disposed of in the sanitary sewer system and in landfills. Microorganisms naturally present in the animal carcasses are destroyed by the extremely high temperature steam and pressure, thereby "sterilizing " the material in much the same way a medical autoclave is used to purify surgical instruments. This is the first such facility constructed in the United States.

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