



# Virginia maryland

Virginia-Maryland Regional College of Veterinary Medicine

Summer-Fall 1999



**Riding to the Hounds** - Perhaps no other sport evokes such rich and nostalgic images of the Virginia countryside as does hunting. The fall hunting and steeplechase season is underway.

## Veterinary College, Medical College of Virginia, State Associations Collaborate on Three-Year Symposium Series

The Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM), the Medical College of Virginia (MCV) and the Virginia and the Maryland Veterinary Medical Associations (VVMA and MVMA) have announced plans to present three annual symposiums designed to explore linkages between human and

veterinary medicine over the next three years.

The symposia series, entitled "The Bridge Between Veterinary Medicine and Human Health," has been created to generate increased professional and public awareness of the therapeutic aspects of human/animal interaction, health threats

posed by human/animal interaction, and public health and food safety issues related to human/animal interaction.

"Physicians and veterinarians recognize the benefits of animal companionship and both are concerned with

Please see **Veterinary College:** page 13

## Economic Impact Study Determines Veterinary College Returns More Than Two Dollars for Every One Invested

For every dollar invested in the Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM) by the Commonwealth of Virginia, over two dollars are returned, accord-

ing to the results of a comprehensive two-stage, multi-year economic impact study conducted by agricultural

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Virginia Maryland is published periodically by the Virginia-Maryland Regional College of Veterinary Medicine. We welcome your comments, suggestions and questions. Please address all correspondence to:

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## Dean's Desk



Dean Peter Eyre

Recently, we received the KPMG report: The current and future market for veterinarians and veterinary medical services in the United States. - JAVMA, 215 (2) 161-183, July 15, 1999. To quote the AVMA/AAHA/AAVMC Steering Committee: "The study is a comprehensive, far-reaching and seminal work that contains in-depth analyses and special insights of veterinary medicine as we approach the next century." Few would disagree. Yet, this is the fourth "future study" of our profession since the mid 1970's, and we did not heed the earlier predictions and recommendations. How shall we respond this time?

While there is much to be proud of, the latest study also clearly suggests several serious difficulties. Self-assessment is usually unsettling and painful, and it is always hard to agree on what to do. But problems must be addressed and rectified, and strategic opportunities embraced if we expect to achieve the future security that the profession deserves. Time is no longer on our side.

It seems that, as a result of the KPMG study, a national commission will be set up, with a five-year agenda, to address the critical issues in the report. While I enthusiastically applaud the idea of open, national dialogue, the time frame is much too long. I suggest that there is one fundamental step that can and should be taken now.

As Dean Voss has said, the colleges and schools of veterinary medicine must accept this report as their call to action. Society and market conditions have always set the terms and conditions under which we operate. This is a reality that we cannot change. Therefore, we are obliged to adapt and to prepare our graduates to deal with the challenges that the world presents, or risk losing the public trust on which all

of us depend.

The leaders of tomorrow are enrolled in our classrooms today. How shall we reach beyond the competencies of conventional medical education to transform our students into professional leaders with the life skills essential to their success in the 21st century? How shall we couple the ever changing needs and expectations of society to the learning process? How will our actions effect professional licensing, accreditation, public funding, etc., etc?

Leading change means stepping outside one's comfort-zone; finding unconventional remedies for old problems; seizing new opportunities and being persistent (and even unreasonable) in the face of opposition.

Bold and visionary decision-making is not always well-rewarded in higher education. Yet our veterinary colleges are the crucibles for the future of the profession. Will we have the courage to do what needs to be done?

As noted management theorist Peter Drucker has pointed out: "The best way to prepare for the future is to create it."

***Bold and visionary decision-making is not always well-rewarded in higher education. Yet our veterinary colleges are the crucibles for the future of the profession. Will we, as academic leaders, have the courage to do what needs to be done?***

## DVM Curriculum Continues to Evolve

As part of the continued evolution of the college's tracking curriculum, veterinary students now identify their interest in either small animal, food animal, mixed animal, equine or government and corporate veterinary medicine during an earlier part of their education.

Second year students now declare an academic track in the professional curriculum at the end of the first year of study, according to Dr. Grant Turnwald, associate dean for academic affairs.

In 1992, a faculty task force began the multi-year process of examining the curriculum in light of trends in veterinary education and the demands of professional practice. The group's recommendations included a core elective curriculum with tracking and a recommendation that learning should become more active than passive.

In 1995 the faculty approved the concept of a core/elective curriculum which requires DVM students to master the structure and function of animal body systems and their responses to disease producing agents in the environment. The curriculum is also designed to stimulate the development of students' critical thinking and problem-solving skills and encourage them to identify and pursue a specific career interest within the profession.

Making the changes has not been easy. "Changing the curriculum is like moving a graveyard," commented Dean Eyre in a recent speech to the students announcing the changes. "Lots of skeletons need to be dug up and buried with lots of ceremony."

Under the core/elective program, veterinary students are allowed to wrap elective courses around a core curriculum in a way that supports their eventual career interest. Core courses are emphasized during the early phases of the nine-semester, four-year DVM program, while track and elective coursework is emphasized during the last five semesters of the curriculum.

Outcomes assessment

programs have been developed and will be implemented this year to evaluate the effectiveness of the new curriculum, according to Turnwald. As part of the ongoing assessment program, information will be sought from students, graduates, and employers in order to assess the effectiveness of the curriculum.

## Engineering College, VMRCVM Collaborate

The first Intercollegiate Research Forum was recently presented by the College of Engineering and the VMRCVM.

The conference was presented in order to foster collaborative research by introducing faculty members with common biomedical research interests, according to VMRCVM Associate Dean for Research and Graduate Studies Dr. John Lee.

VMRCVM Dean Peter Eyre presented remarks, which were followed by a series of concise research presentations. Discussion and a reception followed.

Several areas of common interest were identified and will be developed between the two colleges.

## Forrester Attends Harvard Institute

Dr. S. Dru Forrester, the college's director of student affairs and an associate professor in the Department of Small Animal Clinical Sciences, recently attended the Management Development Program at Harvard University.

Forrester was one of 120 academic professionals from public and private institutions around the world enrolled in the intensive two-week program designed to enhance the leadership skills of administrators in higher education.

Educational sessions focused on topics such as team-building, diversity, financial and human resource management, legal issues in higher education, politics and influence and many others and were presented in a highly interactive, case-based format, according to Forrester.

"It was stimulating and very educational," she said. "I learned a lot from the talented and wonderful teachers at Harvard and from my colleagues."

## College Presents Animal Birthing Exhibits at Maryland, Virginia State Fairs

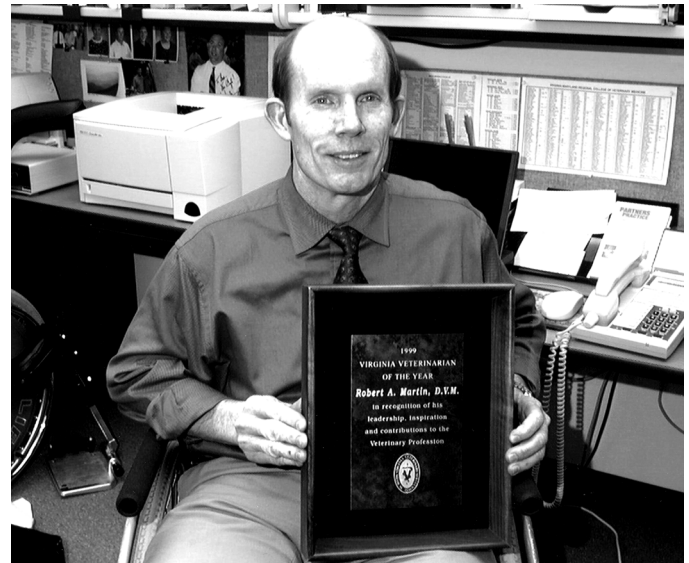
College faculty members and veterinary students presented live agricultural animal birthing exhibits at both the Maryland and Virginia state fairs this year.

A four-day birthing program was featured for the first time at the Maryland State Fair at the Timonium Fairgrounds in early September. The college also presented a similar exhibit at the Virginia State Fair in Richmond.

Veterinary faculty and students were on hand around-the-clock to provide professional

support and explain the process to fair-goers as pigs, sheep and cattle bore their young during the program. The exhibits also featured informational videotape and graphic displays.

The popular state fair programs were presented under the leadership of Dr. W. Dee Whittier, the college's director of cooperative extension, with volunteer assistance from numerous faculty and students.



Dr. Robert A. Martin poses with his VVMA commendation. Martin has played an instrumental role in building a strong relationship between the college and the VVMA.

## Martin Named VVMA'S 1999 "Veterinarian of the Year"

Veterinary Teaching Hospital Director Robert A. Martin was awarded the 1999 "Veterinarian of the Year" Award from the Virginia Veterinary Medical Association during their annual meeting in Roanoke.

Martin, a small animal veterinary surgeon who joined the College in 1983, was named Veterinary Teaching Hospital director in 1993. He has been very active with the VVMA/VMRCVM Liaison Committee and received numerous commendations for excellence in teaching including Virginia Tech's most

prestigious teaching award, the Wine Award.

In November 1996, Martin was paralyzed after falling out of a tree while hunting. After a successful rehabilitation, Martin resumed his full-time duties in April 1997.

Martin earned the DVM degree from Auburn University in 1976 and conducted a residency at Cornell University. He is a Diplomate in the American College of Veterinary Surgeons and the American Board of Veterinary Practitioners.



Dr. Spencer Johnston

## Surgeon Volunteers Time, Skill for Greyhounds

Thanks to a lot of big-hearted people, things are getting better for retired greyhound racing dogs than they used to be.

Concerned volunteers in the National Greyhound Adoption Program are making good progress in finding new homes for many the sleek and graceful racers.

And another concerned volunteer in the College's Department of Small Animal Clinical Sciences is helping make some of those dogs more adoptable.

"Greyhounds commonly have a lot of orthopedic problems, just like racehorses," said veterinary surgeon Dr. Spencer Johnston.

Johnston recently volunteered his time to travel to the National Greyhound Racing Association's new headquarters and clinical facility in Pennsylvania to operate on three dogs requiring sophisticated surgery.

Johnston became aware of the organization's work by striking up a casual conversation with member Gay Latimore several years ago while he was presenting a paper at the North American Veterinary Conference.

"Your generosity was more than we could have hoped for," wrote Latimore to Johnston after his work. "It is refreshing to meet someone that is willing to give and not receive. I hope your students will learn from your spirit."

## Veterinary College Professor Writes Book on Canine Anatomy

Dr. Bonnie J. Smith, an associate professor in the Department of Biomedical Sciences and Pathobiology has recently authored a book entitled "Canine Anatomy." The 619-page book was designed to

provide an overview of canine anatomy for those in the veterinary medical field, according to Dr. Smith.

The publisher, Lippincott Williams & Wilkins, invited Smith to write "Canine Anatomy." It is one of eight in their National Veterinary Medical Series, which is a concise, dependable review for the veterinary board exams. Each title focuses on the most current and clinically relevant information for diagnosing and treating a wide variety of problems.

The text is presented in a brief outline format that makes specific points easy to find and reference. Each of the 62 chapters includes a set of questions that are written in the National Board Exam format and provides expanded answers that highlight critical points.

## VMRCVM Graduate Students Earn Honors in University Research Competition

Three veterinary medical science students earned honors in the Virginia Tech Graduate Student Assembly's recent 15th Annual Research Symposium.

Kent Carlson, a Ph.D. student in veterinary medical sciences, placed first in the life sciences division. Carlson's work examined how a group of organophosphorus (OP) pesticides cause nerve cells to die. Using human nerve cells from a tumor, he observed that some OP compounds forced the cells to "commit suicide" rather than killing them directly. Cellular suicide, termed apoptosis, occurs naturally during development and results in the deletion of cells that are no longer necessary, such as those that comprise the webbing between embryonic fingers and toes. Discovery that OP compounds cause apoptosis may help make it possible to identify the cause of some brain and spinal disorders. It may also lead to a therapy for brain and spinal degeneration that result from organophosphate poisonings.

Christiane Massicotte, a DVM now working toward a Ph.D. in veterinary medical sciences, won second place honors in the life sciences category for a poster explaining research on a method for studying protections against nerve disorders in poultry.

Mike Howard won first place for his research that demonstrated that the bovine pathogen, *Haemophilus somnus*, is able to evade the immune system because the infecting antigens change as defensive antibodies are formed. His findings may lead to the development of vaccines that can react to *H. somnus*' mixed antigens

Almost \$4,000 in prizes were awarded to 19 individual who displayed their research at the March 29 event, according to Peter Sforza, graduate student in plant pathology, who chaired the event.

Carlson also won the annual research award for research conducted by a Ph.D. student from the Alpha Psi Chapter of Phi Sigma biological honor society at Virginia Tech. He also won honors at the First Intercollegiate Research Forum presented by the College of Engineering and the VMRCVM at Virginia Tech.



Dr. Denise Glander

## Graduate Honored with National Award

A member of the Class of '85 is being honored by The American Business Women's Association. Denise Glander will be recognized as one of the Top Ten Business Women of the ABWA at their national conference in October.

Competing in a field of 70,000 working women, Glander was selected based on her career accomplishments, community involvement and her role as an inspiration for all working women.

Glander has an extensive history in the veterinary field and has worked at the Montgomery Animal Hospital in Rockville, MA; St. Mary's Hospital in Jefferson City, MO and the National Zoo in Washington, DC. In 1997, she began her own practice in Granite Falls, N.C.

In addition to her work, Glander is also involved in a number of community associations including the Piedmont Veterinary Medical Association, the Western Piedmont Humane Society and the Caldwell

County Chamber of Commerce. Glander has been a member of the American Business Women's Association since 1992.



Dr. Phillip Sponenberg

## Sponenberg Presented with Veterinary College's Faculty Distinguished Service Award

Dr. Phillip Sponenberg, a professor in the Department of Biomedical Sciences and Pathobiology, was presented the inaugural Faculty Distinguished Service Award during the college's annual Commencement Ceremony on May 14, 1999.

The award will be presented annually to a faculty member who best exemplifies the highest ideals of service, dedication and commitment to the college, the profession and society it serves.

In addition to his professorial duties of teaching, service and research, Dr. Sponenberg has served the college in a number of administrative capacities. He most recently served as acting Associate Dean for Academic Affairs and he has also provided leadership for the college's alumni program.

## USDA CSREES REVIEW CONDUCTED

A once-a-decade comprehensive review of the college's research program was recently conducted by the U.S. Department of Agriculture's Cooperative State Research, Education and Extension Service.

The review team noted significant progress since their 1988 effort. "With the revitalization of the extension program and increased efforts by individual faculty, it is clear that there is a much stronger linkage with the livestock commodity groups, especially for horses, cattle and

aquaculture.

The team reviewed organizational, resource and facilities issues and progress made in the existing Research Focus Units of Molecular Medicine and Infectious Disease, Environmental Medicine and Toxicology, Population Medicine and Food Safety, and Companion Animal Health and Human Disease Models.

The review identified several areas that require attention for future development. Those include enlarging and enhancing research animal space, staffing levels of technical support staff, and more laboratory space.

The team was comprised of senior research officials from several colleges of veterinary medicine and the USDA.



Ms. Lynn Brammer

## Brammer Wins Veterinary Teaching Hospital's Staff Award for Second Time

Lynn Brammer gets to go to work every day knowing that what she is doing is making a difference in the lives of people and animals.

As an animal care technician in the Veterinary Teaching Hospital, Brammer cares for animals and helps train veterinary students.

It is a job she loves, and it shows: for the second time, she has been awarded the Veterinary Teaching Hospital's

Annual Staff Award. She was also recognized for her exemplary service in 1989.

She began working in the Veterinary Teaching Hospital in 1983 and has risen through the ranks as an animal care technician. Today, her service and advice are valued by students, staff and faculty alike.

As an animal care technician, Brammer works closely with fourth-year students who are learning clinical skills along-side faculty, residents and interns in the Veterinary Teaching Hospital. She assigns cases for the students to work up and teams with them on basic diagnostic procedures like taking blood samples.

"I love the interactions with the students because of their enthusiasm at this point in their education," she said, noting that hospital rotations are the first time that students get to apply the knowledge that they have been acquiring in classrooms and laboratories over the prior three years.

Brammer thoroughly enjoys working at the Veterinary Teaching Hospital and "feels fortunate to be part of such a wonderful team." She loves being able to interact with the students, the different people and the pets that she comes in contact with everyday.

Brammer's colleagues also feel fortunate to have her around. "Lynn is one of the most dedicated employees the college has," said Dr. Rick Hiller, Hospital Administrator. "She is always

going the extra mile for patient care and is extremely knowledgeable and well-liked."

Lynn's love for people, animals and dedication to her work have earned her the respect and gratitude of her colleagues.

## Mrs. Talbot Recognized by AAVMC

Mrs. Jane Talbot, an employee in Virginia Tech's Office of University Relations, was presented with an award from the Association of American Veterinary Medical Colleges (AAVMC) during a luncheon held recently at the Virginia-Maryland Regional College of Veterinary Medicine.

The AAVMC recognized her years of service as the editor of the Journal of Veterinary Medical Education. Talbot, wife of the late founding Dean Richard B. Talbot, helped edit and produce the academic journal for 15 years.

Talbot currently provides administrative/computer support in Tech's Office of Visual Communications.

## Cancer Conference Presented

The College recently presented the "Eighth Annual Student Cancer Conference."

Sponsored by the Virginia Division of the American Cancer Society and the College, the conference included presentations on different aspects of cancer diagnostics and treatment.

Speakers included Dr. G. Sylvester Price, an associate professor of oncology at the North Carolina State University College of Veterinary Medicine, and Dr. Rupert Schmidt-Ullrich, professor and chairman of the Department of Radiation Oncology at the Medical College of Virginia at Virginia Commonwealth University.

Kristina Douglas and Michelle Wells, VMRCVM students who were selected at 1998 American Cancer Society, Virginia Division Student Summer Fellows, also made presentations.

The conference is presented annually as part of the oncology curriculum for VMRCVM students. The program objective is to promote veterinary student interest in the field of oncology and provide continuing education for practicing physicians and veterinarians.

Members of the VMRCVM planning committee include Drs. Bob Duncan, John C. Lee, Edward Monroe, Mitzi Nagarkatti and Jeff Wolf; and Kristina Douglas, Michelle Wells, and Nancy Sterling.



Several retired faculty and guests recently gathered for the college's annual emeriti faculty luncheon. From left to right: Jeffrey Douglas, public relations director; W. B. Gross, D. F. Watson, Gordon MacInnis, Kent Roberts, Gerry Colmano, emeriti faculty; John Perry, former Virginia Tech provost; Clarence Roberts, father of Kent Roberts and member of Cornell University's Class of '22; John Wilson, former Virginia Tech provost; Grant Turnwald, associate dean for academic affairs; Donna Pitt, assistant dean; Peter Eyre, dean; Jane Talbot, wife of the late VMRCVM founding dean Richard B. Talbot; Lud Eng, head, Department of Biomedical Sciences and Pathobiology; Joyce Morgan, administrative assistant to the dean; John Lee, associate dean for research and graduate studies; Craig Thatcher, head, Department of Large Animal Clinical Sciences; and Gordon Carter, emeriti faculty.



Summer Fellows Complete '99 Program-Five students completed the extensive Summer Fellows Program. The program combines independent research experiences, leadership development training, and exposure to public policy and legislative processes during an intensive eight-week program designed to help students acquire a competitive edge in today's professional environment, according to Dr. John Lee, associate dean for research and graduate studies. Fellows include, from left, Kim Bohne, Katie Colegrove, Rachel Corrocher, Colleen McCloskey and Angie Murphy. Faculty mentors, from left, Dr. Carl Pfeiffer, Dr. Stephen Boyle, Dr. John Robertson, Dr. Beverly Purswell. Not pictured, Dr. Holly Bender.

## VMRCVM Working with Pan American Federation of Veterinary Colleges

College leaders recently met with representatives from Latin American veterinary colleges in Valdivia, Chile in an effort to help them standardize veterinary education and practice in Mexico, Central and South America.

VMRCVM Dean Peter Eyre and Dr. Gerhard Schurig, a professor in the college's Department of Biomedical Sciences and Pathobiology, spent a week in South America discussing ways in which academic curricula, professional licensing and school accreditation can be improved.

"They are trying to develop more uniform methods of veterinary education and they are trying to standardize the quality of their graduates," said Schurig, who also serves as the director of the college's World Health Organization Collaborating Center for Veterinary Education in Management and Public Health.

The Pan American Federation of Veterinary Colleges, an organization of veterinary schools from throughout South America, Central America and Mexico invited the pair to South America. The VMRCVM is the only college of veterinary medicine in the United States which is a member of that Federation.

In the United States, veterinary colleges are accredited by the American

Veterinary Medical Association's Council on Education. At the present time, no common standards exist for accrediting veterinary colleges within the Pan American Federation, according to Schurig, although Mexico is moving in that direction.

In the United States, all veterinarians must pass a national professional licensing examination and then pass additional examinations in the states in which they wish to practice. No common licensing system presently exists within countries in the Pan American Federation of Veterinary Colleges, Schurig said.

Finally the group discussed the need for all of the veterinary colleges to adopt common aspects of an academic curriculum in order to foster consistent standards of education and performance.

Symposium leaders made important progress in agreeing that efforts should be undertaken to address the improvements, Schurig said, and are now in the process of formulating strategies for meeting those goals.

The college's World Health Organization Collaborating Center for Veterinary Management and Public Health seeks to improve animal and human health throughout the Americas by promoting public health and veterinary education throughout the Americas and Caribbean Basin, according to Schurig.

## Faculty Participate in UVA Conference on Antibiotic Resistance

Two professors from the VMRCVM recently participated in a conference entitled "The Global Crisis of Antibiotic Resistance" at the University of Virginia's Jordan Conference Center.

Dr. Terry Swecker, associate professor in the Department of Large Animal Clinical Sciences and head of the VMRCVM's Production Management Medicine Department, and Dr. Francois Elvinger, an associate professor in the Department of Biomedical Sciences and Pathobiology, joined UVA medical professor Dr. Barry Farr in the "Medical Center Hour" program.

The development of antibiotics has helped science

win the war against infection. For more than fifty years, new generations of antibiotics have helped reduce the toll of infection.

But infection remains the leading mortality threat, killing 20 million a year around the world, according to the World Health Organization.

Compounding the problem is the fact that bacterial organisms are now developing resistance to many of the antimicrobial agents developed to control them.

Swecker and Elvinger were invited to participate in the program since antibiotics are commonly prescribed for use in livestock and poultry, which are ultimately consumed by humans.

## Reorganization of Veterinary Extension and Continuing Education Announced

Several organizational changes have been made in the Veterinary Medical Cooperative Extension and Continuing Education program areas.



Dr. Dee Whittier

Dr. W. Dee Whittier has been appointed Director of Cooperative Extension and Project Leader for Veterinary Medicine in Virginia Cooperative Extension, Dr. Jim Bowen will serve as Director of Continuing Education and assume leadership responsibilities for building equine extension programs, and Dr. Terry Swecker will become Section Chief of the Production Management Medicine (PMM) group.

Whittier, joined the College in 1980 as one of its charter faculty members. Recipient of the 1998 Founder's Day Extension Public Service Excellence Award, Whittier has provided leadership for the College's PMM group for the past nine years. PMM is a field services program that helps producers improve their margins by adopting herd and flock health programs.



Dr. Jim Bowen

Bowen has served the college in a number of capacities since joining its faculty in 1986. He is former head of the Department of Large Animal Clinical Sciences, and has provided leadership for a variety of program initiatives in outreach and extended education. He is board certified by the Society of Theriogenology.



Dr. Terry Swecker

Swecker, one of the college's charter DVM graduates, joined the college's Department of Large Animal Clinical Sciences faculty in 1990 after earning his Ph.D. He is the recipient of numerous teaching awards and is board certified by the American College of Veterinary Nutrition. He currently serves as Chairman of the Board of Regents of the ACVN.



Dr. Mitzi Nagarkatti

## American Cancer Society Awards New Investigators Grant

A prestigious Institutional Research Grant awarded to the Virginia-Maryland Regional College of Veterinary Medicine by the American Cancer Society (ACS) has provided several new funding opportunities for junior faculty and professional students at Virginia Tech interested in conducting cancer research.

The \$127,500 grant will fund two junior faculty researchers at a level of up to \$20,000 each and a professional student at a level of up to \$2500 for one-year periods during each year of the three-year grant cycle, according to Dr. Mitzi Nagarkatti, a professor in the Department of Biomedical Sciences and Pathobiology.

This grant is designed to provide seed money for junior investigators in departments across the university who wish to conduct studies on cancer-related topics in order to

generate the preliminary data required to successfully compete for national funding, according to Nagarkatti.

ACS Institutional Research

Grants are normally made to medical schools to support cancer research. Nagarkatti said the VMRCVM is the only veterinary college currently funded with one.

Nagarkatti and her husband Prakash of the department of Biology are among a number of researchers conducting cancer research at Virginia Tech. The Nagarkatti program has received about \$6 million in external funding since the husband and wife team joined the Virginia Tech faculty in 1986.

*Nagarkatti said the VMRCVM is the only veterinary college funded with one.*

## College to Host Geraldine R. Dodge Foundation's "Frontiers for Veterinary Medicine" Meeting

The Virginia-Maryland Regional College of Veterinary Medicine will host the fourth annual Fall meeting of the Geraldine Rockefeller Dodge Foundation's "Frontiers for Veterinary Medicine" on October 28-31, 1999.

During the meeting, over 40 veterinary student fellows from around the nation, Canada and Mexico will present the results of their summer research projects conducted on topics including research on companion animals, veterinary ethics, livestock and agriculture, wildlife, ecology, laboratory-welfare and human-wildlife interactions.

The purpose of the Frontiers for Veterinary Medicine Summer

Grants for Veterinary Students initiative is to provide talented and motivated veterinary students with the opportunity to step outside the traditional boundaries of veterinary education and develop new perspectives on animal-related issues, according to Brett Anderson, program assistant for the Geraldine R. Dodge Foundation.

As a part of the program in 1997, VMRCVM veterinary student Michelle Weisbarth was funded to conduct preliminary work on the development of a genetically modified immuno-contraceptive vaccine for feral cats. That worked served as the foundation for a major research effort now underway in the

college. Other VMRCVM veterinary students funded through Frontiers for Veterinary Medicine include Virginia Clarke who participated in 1998 and Leela Noronha and Rachel Weiss who both participated in 1999.

The Geraldine R. Dodge Foundation responds to proposals in the areas of welfare of animals, secondary and elementary education, critical issues: environment and population and the arts in New Jersey. The foundation, which was created in 1974, also develops initiatives that are likely to improve the quality of life in these areas.



## Late Founding Dean Richard Talbot Honored by Local Civic Group

Almost a hundred local residents and community officials turned out to help dedicate the new Talbot Memorial Park on Montgomery County's Huckleberry Trail. The .3 acre wayside on the popular bicycling and walking trail was created by the Blacksburg Rotary Club in honor of Talbot, the college's late founding dean. Talbot was president of the Blacksburg Rotary Club during the year he perished in an airline disaster. Top, Mrs. Jane Talbot, shares memories of her husband and the founding years. Bottom, from left, former Virginia Tech President William Lavery, local businessman Bill Ellenbogen, and VMRCVM Dean Peter Eyre, watch as Mrs. Talbot views the newly unveiled commemorative marker.



## College Presents Eleventh Annual Research Symposium

Fifty-two research presentations on a broad range of topics in veterinary medicine and the biomedical sciences were recently presented by students and faculty members during the Eleventh Annual Research Symposium at the Virginia-Maryland Regional College of Veterinary Medicine.

**Dean Peter Eyre** noted the exceptional growth of the college's research program over the past 10 years during introductory remarks. The challenges created by the increased complexity of modern biomedical science require more collaboration among various scientific disciplines, he said, and he called for more "holistic thinking" in research.

**Dr. Erik Hewlett**, associate dean for research and a professor of medicine and pharmacology at the University of Virginia's School of Medicine, opened the two-day conference with a keynote presentation entitled "Animal Diseases, Animal Models and Opportunities for Collaboration."

**Dr. Mary Torrence**, the National Program Leader for Food Safety for the USDA-CSREES, also gave a special presentation on "National Programs and Initiatives in Food Safety." During her remarks, she provided an overview of federal food safety programs that have been recently organized into the new National Integrated Food Safety System.

**Dr. Mitzi Nagarkatti**, professor in the Department of Biomedical Sciences and Pathobiology and Dr. Nathaniel A. White II, Theodora Ayer Randolph Professor of Equine Surgery at Marion duPont Scott Equine Medical Center at Morven Park, were awarded the 1999 Pfizer Research Award, which seeks to recognize research excellence in the nation's 27 veterinary colleges.

Graduate students **Kent R. Carlson** and **Yuying Tian** earned awards in the Basic Sciences section of the Graduate Student Research competition, and **Dr. Kimberly Anne May** and **Dr. Deborah M. Ward** earned honors in the Clinical Sciences category. **Justin D. Vidal** was honored in the DVM Student Research category.

**Steve L. DeHart**, a facilities support unit manager, received the 25-Year Service Award and **Sandy Perkins**, a laboratory technician, received the Dedicated Service Award. The Research Co-Worker Award was presented to **Gilda Machin-Scarpaci**.

## High Demand Continues for Orthopedic Surgery Series

An orthopedic surgery continuing education event offered once a year by the college continues to draw rave reviews from participants.

Veterinarians enrolled in the course can earn up to 38 contact hours or 3.8 continuing education credits by enrolling in the intensive five-day event.

Practitioners from around the nation have enrolled in the course, which includes a morning lecture series followed by laboratory exercises in the afternoon, according to Dr. Spencer Johnston, associate professor, Department of Small Animal Clinical Sciences.

Topics covered include surgery of the shoulder, elbow, knee, hip, fracture repair and joint surgery, Johnston said.

For more information about the course, contact Dr. Jim Bowen, director of continuing education, at 540-231-4668.

## New Faculty Members Arrive

Several new faculty members have recently joined the Department of Small Animal Clinical Sciences.

**Dr. H. Marie Suthers-McCabe** will serve as a Companion Animal Extension Specialist and focus on human-companion animal interaction. Dr. Suthers-McCabe earned her BS in Zoology and her DVM at The Ohio State University. She previously served as the Program Director of the Veterinary Technology Department at Columbus State Community College. Dr. Suthers-McCabe has been active nationally in veterinary technology training and has had additional training in animal assisted therapy, pet partners and veterinary homeopathy.

**Dr. Zorana Ristic** is an assistant professor in the Department of Small Animal Clinical Sciences. Dr. Ristic, a

veterinary dermatologist, earned her DVM at the University of Giessen in Germany and completed a two-year residency in dermatology at the University of Georgia, where she also served as a clinical instructor. She has been in private practice in Germany for the past few years.

**Dr. Thomas Manning** is an associate professor in the Department of Small Animal Clinical Sciences. Manning earned his DVM and M.S. from the New York State College of Veterinary Medicine at Cornell University. He also conducted a residency at the New York State College of Veterinary Medicine at Cornell University. He is a Diplomate of the American College of Veterinary Dermatology.

**Dr. David Panciera** is an associate professor in the Department of Small Animal Clinical Sciences. Panciera

earned his B.S. in Zoology and his DVM from Oklahoma State University. He earned his M.S. in Veterinary Science from the University of Wisconsin-Madison, he conducted a residency at the University of Wisconsin-Madison, and an internship at the University of Missouri-Columbia. Panciera is a Diplomate of the American College of Veterinary Internal Medicine.

**Dr. Otto Lanz** is an assistant professor in the Department of Small Animal Clinical Sciences. He earned his B.S. and his DVM from Auburn University. He conducted a small animal surgical residency in the Department of Small Animal Clinical Sciences at the University of Florida and an internship in Small Animal Medicine and Surgery at Michigan State University. Lanz is a Diplomate of the American College of Veterinary Surgeons.

## In memorium

### **Bruce Harold Ewald**

*Former associate dean for research and graduate studies Bruce Ewald passed away on May 5.*

*Ewald earned a DVM from Iowa State University in 1957 and a MS from ISU in 1965.*

*A long-standing Diplomate in the American College of Laboratory Animal Medicine, Ewald served as Director of Laboratory Animal Medicine at Cornell University Medical College in New York City before his 1978-85 tenure in the VMRCVM.*

*In 1985, he became director of Animal Care at CIBA-GEIGY and worked here until his retirement.*

*Wrote colleague Jayne Mackta in the journal Lab Animal: "Ewald was a consummate, caring professional, whose attention to detail was the foundation of his comprehensive grasp of the larger picture. He advocated for the highest standards in the care and treatment of laboratory animals, motivating all who knew him to do the right thing in the right way for the right reason."*

### **Dr. Pam Slack**

*Dr. Pam Slack, a member of the Class of '92, perished in a private airplane crash in North Carolina in early May.*

*Slack practiced avian and exotic animal medicine at the Alexandria Animal Hospital and had recently become a preceptor in the college's clerkship program.*

*She also participated in college programs as a guest lecturer and symposium speaker.*





Dr. Thomas Inzana is director of the College's Center for Molecular Medicine and Infectious Diseases

## Swine Vaccine Developed by Veterinary College Researchers Receives USDA Approval for Commercial Use

A genetically altered vaccine developed by a researcher in the Virginia-Maryland Regional College of Veterinary Medicine has received the final green light from the United States Department of Agriculture (USDA) and is now being commercially marketed as an agent to prevent pneumonia in pigs.

The vaccine, marketed under the trade name "Actinobacillus pleuropneumoniae Attenuate Live Culture" (APP-ALC) by Boehringer Ingelheim / NOBL Laboratories, is the first avirulent live vaccine ever approved for preventing bacterial respiratory disease in animals, according to microbiologist Dr. Thomas Inzana of the College's Department of Biomedical Sciences and Pathobiology.

Swine pleuropneumoniae causes millions of dollars in production losses a year and is one of the most significant bacterial respiratory diseases in the swine industry, Inzana says.

"It can really wipe out a non-immune herd," he said, adding that an infection can destroy up to half of the herd and sicken most of the others. It's highly virulent characteristics pose a special threat for modern swine production centers where animals are highly concentrated.

The product development and licensing caps a several-year research effort which was

made possible by the dramatic scientific advancements in the field of molecular biology over the past ten years.

Since the days of Pasteur, immunology researchers have known that the best immune response is elicited by natural exposure to the pathogenic organism itself, Inzana explains. Unfortunately, many vaccines evoke an inflammatory response and infection in the people and animals they are designed to protect.

Working in the College's Center for Molecular Medicine and Infectious Disease, Inzana and colleagues sought to create a genetically altered live vaccine for swine pleuropneumonia, a major cause of production losses in the swine industry, which is caused by the bacterium *Actinobacillus pleuropneumoniae*.

Inzana determined that the carbohydrate capsule of the bacterium is required for virulence, but not immunoprotection. In contrast, only live bacteria produce the native toxins required for immunoprotection. By mutating the capsular DNA he was able to select for a stable, nonencapsulated vaccine strain that confers excellent immunity in pigs with minimal side-effects.

He believes the technique can also be used to create vaccines against *Pasteurella multocida* and *P. (Mannheimia) haemolytica*, the other agents of "shipping fever" in cattle.

The United States Veterinary Biological Product License granted by USDA can be viewed as a significant step forward in the development of live attenuated vaccines for the treatment of respiratory diseases in animals, Inzana said.

## VMRCVM Professors Play Historic Role in Prestigious Medical Research Conference

For the first time in 68 years, the Gordon Research Conference, one of the most prestigious scientific research conferences in the world, will be devoted to a veterinary medical topic.

Two professors from the Virginia-Maryland Regional College of Veterinary Medicine, Dr. Bernie Feldman of the Department of Biomedical Sciences and Pathobiology, and Dr. Peter Gasper of the Avrum Gudelsky Veterinary Center at the University of Maryland College Park, will each present papers.

The historic event began when a conference organizer heard a presentation on hematopoiesis made by Dr. Feldman, became intrigued with its implications, and invited him to participate in the GRC series. It was held in mid-August at a Gordon Research Conference on Comparative Hematopoiesis held at the Tilton School in Tilton, New Hampshire.

"Hematopoiesis is an incredibly exciting area in medicine today, especially veterinary medicine, because we now have the ability to apply cytokine therapy to enhance immune response, even to heal cancer patients," said Feldman, in a news article published by the Journal of the American Veterinary Medical Association. "This conference is a major step for veterinary medicine because it may lead to faster and more efficient use of those therapies in clinical veterinary medicine."

Feldman chaired a section on thrombopoiesis and presented a paper entitled "Overview of methods of proliferation and differentiation of megakaryocytes" during the conference.

Dr. Gasper, whose research expertise within hematopoiesis is on bone marrow transplantation, made a presentation on fetal hematopoiesis during the conference.

"With the international Gordon Conferences long the domain of scientists, it's a benchmark of sorts that this one will have a veterinary emphasis," said Gasper, also quoted in the JAVMA article. "We are united with physicians and other researchers by our interest in where blood cells come from, how they are formed, and what makes them work correctly. This knowledge is essential to understanding conditions such as anemias that come from blood cell derangements."

The Gordon Research Conferences were started in 1931 by Johns Hopkins University Chemistry Professor Neil E. Gordon. During the conferences, scientists present leading research in the biological, chemical and physical sciences.

## Advanced Training for Vet Technicians Begins

Thanks to major support from Mr. and Mrs. Richard Gust of Richmond, work is underway on building and refining an innovative veterinary technician training program which has recently been established in the VMRCVM.

Licensed veterinary technicians are generally trained at community college based programs. In Virginia, such programs are offered at Blue Ridge Community College in Weyer's Cave and at the Loudoun County Campus of Northern Virginia Community College.

However, no arrangements exist to provide advanced training for veterinary technicians. Since veterinary teaching hospitals possess the expertise, equipment and caseload that create an advanced learning environment for technicians, VTH director Robert Martin and colleagues are leading the development of just such a program.

The training program will provide an opportunity for technicians to acquire the advanced skills which are required to support the level of veterinary medicine practiced in secondary and tertiary referral hospitals in both public and private practice environments.

Training is focused on anesthesiology and critical care but can be structured to meet an individual's need or interest. The pilot program is offered as continuing education through the college.

## Intern Program Building Momentum

Nine minority students from throughout the Mid-Atlantic region recently participated in a ten-week program at the VMRCVM that is designed to stimulate their interest in pursuing careers in veterinary medicine. Six interns participated at the Blacksburg campus and three interns participated at the Maryland campus.

During the summer program, students worked closely with faculty mentors on a research project, participated in clinical rotations in the VTH, participated in weekly discussion series on higher education, and took a comprehensive Graduate Record Examination prep course.

This is the third year the VMRCVM has participated in the Summer Research Intern Program for Under-represented Undergraduate Students, which is affiliated with a university-wide program, according to coordinator Dr. Niki Parker of the Department of Large Animal Clinical Sciences. The University of Maryland at College Park operates a similar program.

Students are paid a stipend for participating in the program and their sponsoring laboratories receive some research funding support for their programs, Parker said.

VMRCVM Blacksburg campus interns included Adina

Moosby, Alex Proescher, Michelle Jefferson, Chandra Meacham, Natalie Durrett, and Barbie Gadsden. Also, (back row, left to right) Barbie Gadsden, Natalie Durrett, Adina Mosby, and Alex Proescher.

Mosby, Alex Proescher, Michelle Jefferson, Chandra Meacham, Natalie Durrett, and Barbie Gadsden.

Adina Mosby worked with Dr. Jeri Jones, an assistant professor in the Department of Small Animal Clinical Sciences. Her project was entitled "Canine lumbosacral stenosis."

Alex Proescher worked with Dr. Jerry Roberson, an assistant professor in the Department of Large Animal Clinical Sciences, on a project entitled "*Staphylococcus aureus* body site colonization on dairy cattle."

Michelle Jefferson worked with Dr. Francois Elvinger, an associate professor in the Department of Large Animal Clinical Sciences, on a project entitled "Somatic cell counts in milk persistently and subclinically



infected quarters of dairy cows."

Chandra Meacham worked with Dr. Virginia Buechner-Maxwell, an assistant professor in the Department of Large Animal Clinical Sciences. Her project was entitled "Interpretation of the detection of *Sarcocystis neurona* antibodies in the serum of young horses."

Natalie Durrett worked with Dr. Bill Ley, a professor in the Department of Large Animal Clinical Sciences, on a project entitled "Evaluation of three different cryopreservatives for equine sperm."

Barbie Gadsden worked with Dr. Niki Parker, an assistant professor in the Department of Large Animal Clinical Sciences. Her project was entitled "Assessment of flow cytometric sorting on viability of canine spermatozoa:

feasibility of cryopreservation."

Maryland campus interns included Richard Mason, Lonnelle Neavear and Ravi Upadhyay.

Richard Mason worked with Dr. Robert Heckert, assistant professor, on a project entitled "Salmonella colonization in poultry."

Lonnelle Neavear worked with Dr. Yvette Johnson-Ifearulundu, assistant professor, on a project entitled "Source identification of *E. coli* in surface water using multiple antibiotic resistance patterns."

Ravi Upadhyay worked with Dr. Peter Gasper, assistant professor, on a project entitled "Investigation of feline fetal blood cells."

## New Residents and Interns Announced

Fifteen new veterinarians have been hired as residents and interns.

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

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

Dr. Katja Düsterdieck is a

resident in Large Animal Surgery. She attended the Universität Bern in Switzerland and completed veterinary school at the Tierärztliche Hochschule in Hannover, Germany. She completed a year as a visiting research scholar at Michigan State University and has just completed an internship in Large Animal Medicine.

Dr. Jose Ramos is also a resident in Large Animal Surgery. Dr. Ramos received his BS from Texas A&M University and his DVM from Tuskegee University. He recently completed an internship in Large Animal Medicine and Surgery.

Dr. Lucia Vits received her DVM from the University Austral de Chile where she then became

a member of the instructional faculty. She was an Academic Visitor in 1996-97 and has joined as a resident in Large Animal Surgery.

Dr. Casey Gonda is a resident in Large Animal Medicine. Dr. Gonda attended Bowling Green State University and Findlay College prior to receiving her DVM from The Ohio State University. She was the sole proprietor and clinician at an equine practice in Ohio for the past four years.

Dr. Milan Hess is a resident in Theriogenology, a specialty that focuses on animal reproduction. Hess received her BS and DVM from Colorado State University. She also completed a small animal internship at

Alameda East Veterinary Hospital.

Dr. Eric Willingham, a Virginia Tech alumnus, is a resident in Clinical Nutrition. He received his MS and DVM from the University of Georgia and was formerly a Breeder Manager for Dekalb Poultry Research, Inc. Willingham also completed an externship at the Brookover Ranch Feedyards in Kansas.

Dr. Elizabeth Kline has joined the VMRCVM as an intern in Large Animal Medicine and Production Management Medicine. Dr. Kline completed her BS and received her DVM from the University of Tennessee.

Dr. Sophia Ramlal received her BS with honors from Cornell University and completed her

DVM at Tuskegee University. Dr. Ramlal is an intern in Large Animal Medicine and Production Management Medicine.

Seven new veterinarians were also hired as residents and interns in the Department of Small Animal Clinical Sciences.

Dr. Nivia Martinez, who earned her DVM at Ohio State University, is a resident in Small Animal Medicine. Dr. Martinez also completed an internship at Purdue University.

Dr. Keven Gulikers is a resident in Small Animal Medicine. Dr. Gulikers earned his DVM at Oklahoma State University and completed an internship at the Coral Springs Animal Hospital.

Dr. Trey Calfee earned his DVM at the University of Tennessee and completed an internship at the Angell Memorial Animal Hospital. Dr. Calfee is a resident in Small Animal Surgery.

Dr. Matthew Corse, who earned his DVM at the University of California at Davis; Dr.

Miryam Hofstetter, who earned her DVM at the University of Florida; Dr. Scott Munn, who earned his DVM from North Carolina State University; and Dr. Kristine Stearns, who earned her DVM from the University of Tennessee, are new interns.

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## Toxic Plant Threats to Animals Detailed in New Digital Outreach Program

Thanks to a new digitally-based outreach program, extension specialists, farmers, pet-owners and veterinarians can obtain instant information on almost 30 species of toxic plants which threaten livestock and pets in the Mid-Atlantic area.

“The Prevention of Plant Poisonings in Livestock & Pets Program” has been created on CD-ROM and the worldwide web by Dr. Blair Meldrum, a toxicologist in the college’s Department of Biomedical Sciences and Pathobiology and Ms. Vicky Kok, veterinary college librarian and an honors botanist.

The goal of the program is to help veterinarians, extension agents, producer groups, and other advisory groups learn more about how they can play a role in educating the general public about plants that can threaten the health of their animals.

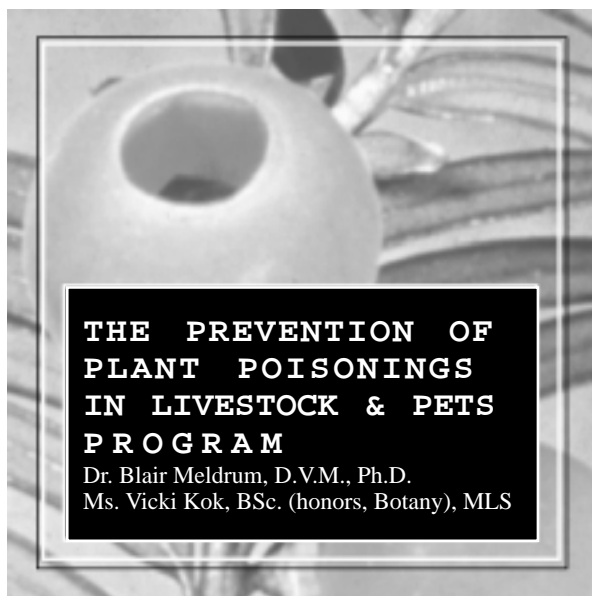
Nature’s vast assortment of grasses, flowers and aquatic plants provide nourishment for animals and add beauty to the countryside. But some of that flora can cause serious problems for Mother Nature’s creatures.

Red Maple, Water Hemlock, Wild Cherry and others contain toxins that can cause neurological, gastrointestinal and reproductive disorders in livestock. Others, such as Christmas season plants like Poinsettia, Mistletoe, and others raise concerns for pet owners.

Many people have become

somewhat aware of the health threats posed by some plants through folklore and periodic scientific and extension bulletins. But up until now, Meldrum explains, that information has been fragmented and not always current.

The web-accessed digital database and CD-ROM are structured in a



concise, “user-friendly” format that contains detailed color pictures of common poisonous plants seen in Virginia and Maryland. It details the features of each plant, references the most toxic parts, the conditions under which poisonings are most likely to occur and outlines the nature of the toxin and the disease process triggered by ingestion.

“Our goal is prevention,” says Meldrum, who embarked upon the project after serving for eleven years as

associate dean for academic affairs in the college. “By making this information available, we can help producers manage their pastures and their animals in a way that prevents the problems from occurring.”

The website and CD-ROM have organized the toxic plants into the 15-20 that commonly affect farm animals like cattle, horses, sheep, goats llamas and pigs and the dozen or so that are troublesome for companion animals like dogs and cats.

The CD-ROM has been distributed free of charge to all Extension Offices throughout the state. Veterinary hospitals and clinics, other agencies and members of the general public are welcome to purchase the CD for a nominal fee.

The digital outreach effort is one component of an intensified effort to get information about toxic plants out to animal owners, explains Meldrum. Personal presentations before producer and other interest groups can be arranged.

**For more information  
about the new program,  
contact:**

**Dr. J. Blair Meldrum at  
540-231-4587**

# VMRCVM Hires Specialist, Creates Human/Animal Interaction Program

Dr. Marie Suthers-McCabe's high-energy, cheerful smile and "can-do" attitude will come in handy as she presides over the development of an innovative new academic program in the Virginia-Maryland Regional College of Veterinary Medicine.

As the college's new Extension Human/Companion Animal Interaction Specialist, she is leading an initiative that will both critically examine and help people learn more about the complex relationship between people and animals.

While most people these days treat pets as part of the family, perhaps only few wonder why. But a growing body of evidence suggests animal interaction fulfills a basic human need.

Numerous medical and behavioral studies have documented both the physiological and the psychological benefits of interacting with animals. And science is beginning to take an even more critical look at the phenomena.

"Things have changed pretty rapidly in the 20<sup>th</sup> century," said Suthers-McCabe. "Most people no longer have the daily experiences that come from the rearing of animals or caring for crops and orchards. The deep relationships people form with their animals may result from a genetically coded need to nurture during a time when technology continues to erect barriers between us and the natural world."

Suthers-McCabe earned her DVM degree from The Ohio State University, and most recently served as professor and program director of Veterinary Technology at Columbus State Community College in Columbus, Ohio. There, among other duties, she directed the academic program, developed and taught a three-quarter Animal Assisted Therapy Certificate program and led the Safe Pets Program at The Center for New Beginnings and Licking-Munisingham Community Corrections Center. She has also received training in alternative



Understandably, Dr. Marie Suthers-McCabe, enjoys life with pets. From left, her dog Ringo, Cactus the cat, and Star. (Photo courtesy of The Roanoke Times)

veterinary therapies like homeopathy.

Suthers-McCabe holds an Animal Assisted Therapy and Education Certificate from an educational consortium operated by People, Animals, Nature, Inc., the University of Pennsylvania, Harcum College and the Devereux Foundation. She has also studied extensively with the Delta Society, a Renton, Washington based organization which funds scientific investigations into the bond between people and animals.

"We're extremely pleased to recruit someone of Dr. Suthers-McCabe's stature for this important new college initiative," said Dean Peter Eyre. "This is truly an area which operates at the convergence of human and veterinary medicine. We have been interested in this emerging area for several years and are very excited about getting underway with building our program."

This year's effort will focus on "Beneficial Effects of Animal Companionship on Human Health and Well-being" and will feature a half-dozen speakers from around the nation, including the Assistant Surgeon General of the United States.

As an extension of this collaborative venture between the College and the MCV, Suthers-McCabe will lecture to second year family practice medical students at MCV on how pet ownership impacts human health and well-being.

The relationship between humans and companion animals continues to broaden and deepen, according to Suthers-McCabe. Pets are being used therapeutically for everything from "humanizing" hardened criminals to reaching emotionally disturbed children. Service animals are now used to assist the physically challenged in ways ranging from seeing eye dogs to predicting seizures in neurologically impaired owners.

In her new position, she will work closely with the VMRCVM's Pet Loss Grief Hotline, and help develop a curriculum in Animal Assisted Therapy and Education in a joint project with the Virginia Veterinary Medical Association and Winchester's Shenandoah University.

She will represent the college with the American Veterinary Medical Association's National Disaster

please see **Specialist**: page 15

# Veterinary College, Medical College of Virginia, State Associations Collaborate on Three Year Symposium Series

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## The bridge between Veterinary Medicine and human health

*A symposium on  
people and animals  
designed to  
explore the vital linkages  
between veterinary  
and human medicine.*

“Beneficial Effects  
of Animal  
Companionship  
on Human Health  
& Well-being”



zoonotic disease threats, food safety issues, biomedical research and the complex interdependencies between people and animals,” said VMRCVM Dean Peter Eyre, who has been meeting informally with Virginia medical college deans over the past few years. “Through these symposia, we hope to create a forum in which these areas of mutual interest can be examined from a more integrated perspective.”

The first, “Beneficial Effects of Animal Companionship on Human Health & Well-being,” will be presented on September 17 on the VMRCVM’s Virginia Tech campus in Blacksburg from 8:15 a.m. - 4:30 p.m.

The symposium will include comments and remarks from Eyre, David Marsland, MD, Head, Department of Family Practice, MCV-VCU; Michael Blackwell, DVM, Rear Admiral, U.S. Public Health Service, Chief of Staff and Assistant Surgeon General, U.S.A.; and Earl Strimple, DVM, a noted expert on the human/animal bond and pet-assisted therapy who operates Washington D.C. based MacArthur Animal Hospital.

The symposium will also include a series of major presentations. Aaron Kacher, MD, will present “Does Inclusion of Animals and Plants in the Human Environment Help Optimize Human Health and Potential?” Dr. Sandra Barker, an adjunct professor in the VMRCVM and associate professor in the Department of Psychiatry at MCV-VCU, who helped establish the veterinary college’s grief counseling program, will present “Recent Clinical Studies on Therapeutic Aspects of the Human-Companion Animal Bond.”

Afternoon sessions will be primarily devoted to a program entitled “Educating Physicians & Veterinarians on the Benefits of Animal Companionship on Human Health and Well-being.” Facilitators include Marie Suthers-McCabe, DVM, an associate professor in the Department of Small Animal Clinical Sciences and Companion Animal Extension Specialist with the Virginia Cooperative Extension Service, Dr. Barker, and two professional students who have spent several months engaged in an extensive review of the professional literature.

MCV medical student John Turner and veterinary student Chris Rogers will present the results of an exhaustive review of the international academic literature

that focuses on human/animal interactions. The work will provide the academic foundations for a more organized approach to providing continuing education in the general area of human/animal interactions for graduate veterinarians and physicians.

It will also provide the foundation for a course in all dimensions of human/animal interaction that will be jointly offered to veterinary students in the VMRCVM and medical students at MCV. Planning is still underway on that course, but officials hope it will be formally introduced in Fall 2000.

The September 2000 symposium is entitled “Educating Physicians and Veterinarians on the Risks of Animal Interactions to Human Health and Well-being.” That event plans to examine a variety of topics, including animal inflicted injuries, zoonotic diseases and wildlife and the environment.

The three-year series concludes in September 2001 with a seminar entitled “Educating Physicians about their Joint Responsibilities in Public Health and Food Safety.” Topics scheduled for examination during that event include microbiological and chemical safety of foods of animal origin, antimicrobial drug resistance and others.

While most people think of veterinary and human medicine as distinct professions, they share a common history. The earliest known medical writings, the Kahun Papyrus, circa 1800 B.C. Egypt, described two cattle diseases, one dog disease, and an obstetrical procedure. At the time of its destruction in the fourth century A.D., the 70 volumes of the “Corpus Hippocraticum” in the Great Library of Alexandria, viewed by some as the first medical school, contained extensive information on both human and animal health.

Over the centuries, human and veterinary medicine became more specialized and evolved independently. But today, the compelling inter-relationships that bind them together seem substantial enough to warrant the symposium series, Eyre said.

Each promotes the public health and works to contain the threats of infectious disease. Each is involved with the human health implications of an animal protein-based food supply, and each is concerned with the physical and psycho-social benefits of the human-animal bond.

## Virginia Tech Hosts Inaugural Meeting of Tri-State Regional Poultry Health Program

State regulatory and poultry industry officials from Virginia, Maryland and Delaware recently convened at the Virginia-Maryland Regional College of Veterinary Medicine at Virginia Tech for the inaugural meeting of the Tri-State Regional Poultry Health Program's Steering Committee.

The committee consists of representatives from three land-grant universities; Virginia Polytechnic Institute and State University, the University of Maryland and the University of Delaware; the Virginia, Maryland and Delaware state departments of agriculture, their state diagnostic laboratory systems; and poultry industry and trade representatives from the Delmarva Peninsula and Shenandoah Valleys production areas.

The meeting was held so members could review the progress of the Tri-State Regional Poultry Health program and identify specific program enhancement goals for 1999, such as increased collaboration in diagnostic work and improved communications. In view of the broad consensus which exists regarding the need for improved clinical diagnostics throughout the tri-state area, the group discussed combining resources to develop better support in the areas of toxicology, microbiology and pathology. The approach could involve closer operating relationships between the state departments of agriculture and university-based diagnostic laboratories.

The steering committee decided to investigate additional equipment the college's Toxicology Laboratory will need in order to provide the enhanced diagnostic support desired by the tri-state poultry industry. Increased opportunities for collaboration on diagnostic virology and electron microscopy were also discussed, along with a commitment



to share information about existing services, which will identify areas in which service enhancement is necessary. The committee also recognized the critical need to establish better communications between poultry industries in Virginia, Maryland and Delaware. In order to address this goal, a joint meeting of the poultry health committees of the Delmarva Poultry Industry and the Virginia Poultry Federation was held in June at College Park, Maryland. This meeting will include an update on toxicology diagnostic services and a review of food safety research activities at the three state universities. The steering committee identified four core objectives for ongoing examination and development. These include preserving the confidentiality of diagnostic data, optimizing the utilization of videoconferencing/electronic communication, improving laboratory information systems and continuing to strengthen collaboration between universities and state diagnostic laboratories. The next meeting of the Tri-State Regional Poultry Health Program's Steering Committee will be held in September, 1999 in Harrisonburg, Virginia.

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The committee also recognized the critical need to establish better communications between poultry industries in Virginia, Maryland and Delaware. In order to address this goal, a joint meeting of the poultry health committees of the Delmarva Poultry Industry and the Virginia Poultry Federation was held in June at College Park, Maryland. This meeting will include an update on toxicology diagnostic services and a review of food safety research activities at the three state universities.

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The Tri-State Regional Poultry Health Program initiative, which

emerged in 1995, is designed to focus on broad issues of poultry health, including diagnostics, research, education and extension.

Since its inception, the program has made significant progress in several areas. Several professional positions have been added at the three universities and the Maryland Department of Agriculture in order to support the initiative. Poultry educational programs have been established for veterinary students and a veterinary residency program, which will focus on the topics of poultry medicine and epidemiology, will begin this summer on the college's College Park, Maryland campus. The program has also identified research needs and expanded research collaboration between the agencies and institutions.

The next meeting of the Tri-State Regional Poultry Health Program's Steering Committee will be held in September, 1999 in Harrisonburg, Virginia

## Economic Impact:

continued from page 1

economists in Virginia Tech's College of Agriculture and Life Sciences.

The study concluded that \$17.9 million in economic benefit is generated by the college's teaching, research and service programs with annual state expenditures of \$8.1, creating a cost/benefit ratio of about 2.2:1.

"When you consider the fundamental role animals play in modern society, it's fairly easy to understand the connection between animal health and economic well-being," said Dr. Peter Eyre, dean of the VMRCVM. "We're very pleased to learn that the Commonwealth's investment in our programs is returning such an outstanding dividend."

The newest portion of the study examined the economic impact of the college's educational and clinical programs. It determined that the annual economic benefit of clinical

*"When you consider the fundamental role animals play in modern society, it's fairly easy to understand the connection between animal health and economic well-being. We're very pleased to learn that the Commonwealth's investment in our programs is returning such an outstanding dividend."*

Dean Peter Eyre

services provided on the Blacksburg campus was \$4.47 million, and \$320,584 for the Marion duPont Scott Equine Medical Center in Leesburg. In addition, they concluded that the Production Management Medicine (PMM) component of the Veterinary Teaching Hospital generated an additional \$862,334 in annual economic benefits, creating a total of \$5.65 million in economic impact per year for the clinical services mission of the college. PMM is an agricultural field service, which helps producers improve their margins by adopting herd and flock health

programs.

The economic benefits of the college's educational programs were determined to be \$8.25 million for the class of 1995, while the annual private economic benefits from all graduates up through 1995 were estimated at \$9.02 million.

The annual state appropriated funds for instruction and academic support were estimated at \$6.4 million for the college and \$400,000 for the Equine Medical Center. By combining the \$5.65 million a year in economic benefit for the college's clinical services with the \$8.25 annualized economic benefit of the college's instructional programs to get \$13.9 million per year in impact, the researchers concluded that the benefit/state funds ratio for that portion of the study is more than 2:1.

During the initial phase of the study announced in 1995, agricultural economists determined that the economic benefits of the colleges research and extension programs were \$48 million in total, or \$4 million a year, based upon an annual state investment of \$1.3 million. They further determined that over 800 jobs were created and that the college programs were responsible for an estimated \$30 million in Gross Domestic Product in Virginia.

By combining the \$13.9 million annualized economic benefit from the college's clinical and educational programs with the \$4 million annualized economic benefit from its research and extension programs, the study demonstrated that almost \$17.9 million in economic benefit is generated by all programs. Annual state expenditures of \$6.8 million for instruction and service and \$1.3 million for research and extension create a total investment of \$8.1 million. An \$8.1 million investment for \$17.9 million in dividends represents a cost-benefits ratio of about 2.2:1.

Dr. George Norton of Virginia Tech's Department of Agricultural Economics, Dr. Tom Johnson of the University of Missouri's Department of Agricultural Economics, and graduate students Shukla Kshirsagar and Binzhang Liu conducted both studies.

The researchers used standardized economic measurement models to assess the short-run impacts on income and employment and longer-term economic benefits. Assessment methodologies included input-output analysis, economic surplus analysis, indirect contingent valuation, travel-cost, and human

capital valuation.

The methodology used to obtain the economic impact data for the clinical services mission of the knowledge is a "travel-cost" model that uses a formula to identify economic impact on the basis of time invested, travel costs to the hospital, and cost of services acquired. Using these valuations, the cost per hospital visit for the Veterinary Teaching Hospital in Blacksburg was estimated at \$1382, while the net economic benefits per hospital visit for clients at the Equine Medical Center in Leesburg was \$215. Extrapolating those figures by caseload data provides the cumulative figures sited above.

Norton and colleagues believe the economic impact figures associated with the college's instructional mission underestimate the true impact of the educational programs because they only analyzed the private portion of the human capital investment, and did not include the outputs of trained professionals practicing veterinary medicine in their individual communities. Instead, the methodology focussed on the income differentials between those who had achieved a professional veterinary education and those who had not.

## Specialist:

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Response Team, which rescues animals victimized by natural disasters like floods and tornadoes. She plans to work with Washington D.C. based Dr. Earl Strimple on programs that bring pets and farm animals in for visitation with inner city children.

She'll provide advice on the role of pets in child development, work with Virginia 4-H, and develop programs in equine assisted therapy. And, she'll continue conducting research that is evaluating how human interaction with pets and other animals lowers stress, blood pressure and improves human health and well-being in everyone from kids to the elderly.

"I'm very excited about this new opportunity," said Suthers-McCabe who holds an associate professorship in the College's Department of Small Animal Clinical Sciences. "This is an emerging and vibrant area of study, and I think this college will provide an excellent environment for a terrific program."

# CHI Chapter of Phi Zeta Inducts Members, Awards Scholarships

## Class of 1999

Fifteen students were inducted into the National Society of Phi Zeta during the Chi Chapter's recent induction ceremonies at Virginia Tech. Standing, from left, Dr. Colin Carrig, Secretary Treasurer, Jeffrey C. Norton, Jacque Schuder, McGregor Ferguson, and Dr. Marion Ehrich, president of the Chi Chapter. Seated, from left, Shana Lynn Patrick, Kathryn E. O'Connor, Matthew Whright, Dana Susan Reeder, and Phillip A. Washington. Absent: Eva Ann Steele, Beverly Ann Bevan, Matthew E. Nicholson, and Julie M. Meadows.

## Class of 2000

Standing, from left, Dr. Colin Carrig, Secretary Treasurer, Roy F. Barnes II, Matthew Baechtel, Matthew Harold Distler, Jeremy V. Smedley, and Dr. Marion Ehrich, president of the Chi Chapter. Seated, from left, Michael J. Fry, Christiana Lynn Ober, Diane Lorraine Heinz, Douglas J. Amspaugh, and Julie Dinwiddie McGhee.



Twenty-one students were inducted into the the National Society of Phi Zeta during recent ceremonies in Blacksburg. The honorees were inducted by Chi Chapter President Dr. Marion Ehrich and over \$5,000 in scholarship support was presented during the event.

Dr. Mary H. May, president of the Southwest Virginia Veterinary Medical Association and owner of Dublin Animal Hospital in Dublin, Virginia, congratulated the inductees on their achievements in her keynote address. She outlined how veterinarians can impact the standing of veterinary medicine by becoming active in the community in which they practice and in organized veterinary medicine.

Phi Zeta is the honor society of veterinary medicine that recognizes high scholarship, stands for constant advancement of the veterinary profession, and promotes research in matters pertaining to the welfare and diseases of animals. The VMRCVM's Chi Chapter was established in 1984.

The event marked the fourth time that scholarships have been provided for inductees, according to Dr. Colin Carrig, Secretary-Treasurer of Phi Zeta.

Fourth year veterinary students participate in three-week off-campus elective clerkships that sometimes involve national and international travel. The scholarship support is

designed to assist students in meeting some of the expenses incurred during these educational opportunities.

"We are extremely grateful for the scholarship support we receive from organized veterinary medicine and corporations," said Carrig, who added that 14 organizations donated a total of \$5300 to support Phi Zeta scholarships.

Scholarship support was provided by the Roanoke Valley Veterinary Medical Association, the Central Virginia Veterinary Medical Association, the Southwest Virginia Veterinary Medical Association, the Piedmont Veterinary Medical Association, the Greater Peninsula Veterinary Medical Association, the South Hampton Roads Veterinary Medical Association, the Blue Ridge Veterinary Medical Association, the Montgomery County Veterinary Medical Association, and the Fredericksburg Veterinary Medical Association.

The past officers of the Chi Chapter of Phi Zeta also contributed to a scholarship this year.

Corporations providing support included Bayer Corporation Animal Health, Pfizer Inc. Animal Health Group, Novartis Animal Health, Ralston Purina Company, Professional Educational Enterprises, Schering Plough Animal Health and W.B. Saunders Company.

Membership in Phi Zeta is open to faculty members and graduate students who have made significant contributions

to veterinary medicine and to veterinary students who rank in the top 10 percent of the third year class and the top 25 percent of the fourth year class.

Class of 1999 members inducted were Beverly Ann Bevan, McGregor Ferguson, Julie M. Meadows, Matthew E. Nicholson, Jeffrey C. Norton, Kathryn E. O'Connor, Shana Lynn Patrick, Dana Susan Reeder, Jacque Schuder, Eva Ann Steele, Phillip A. Washington, and Matthew Wright.

Class of 2000 members inducted were Douglas J. Amspaugh, Matthew Baechtel, Roy F. Barnes II, Matthew Harold Distler, Michael J. Fry, Diane Lorraine Heinz, Julie Dinwiddie McGhee, Christiana Lynn Ober, and Jeremy V. Smedley.

Dr. Kimberly Anne May, a resident in Clinical Services/Surgery in the Department of Large Animal Clinical Sciences and Dr. Catherine E. Thorn, a clinical instructor in the Department of Biomedical Sciences and Pathobiology were also inducted during the event.

The Chi Chapter of Phi Zeta also awarded prizes to Dr. Jonathan Fox, a graduate student in the Department of Biomedical Sciences and Pathobiology, for his work in basic sciences, and to Dr. Kimberly Anne May, a resident in the Department of Large Animal Clinical Sciences, for her work in the clinical sciences.



# Equine Programs in VMRCVM Boosted by New Public, Private Sector Resources

Serving the regional horse industry through teaching, service and research is just one of the ways that the college helps promote economic development. Equine writers and other professional communicators will receive a briefing on some of the equine activities underway within the college during "Equine Update '99" at the Marion duPont Scott Equine Medical Center.

The Virginia Horse Industry will soon begin to reap the benefits of significant equine program enhancements at Virginia Tech which are being supported by two new revenue streams, one from the public sector and one from the private sector.

As a result of the passage of House Bill 590, about \$240,000 of the proceeds from pari-mutuel wagering conducted at Virginia's Colonial Downs and its Off-Track Betting sites this year has been allocated to Virginia Tech to support university programs designed to enhance the health, well-being and performance of both companion animals and equine athletes.

Of this year's \$240,000 allocation, \$150,000 will be earmarked to support the development of new equine teaching and research facilities at Virginia Tech. The remaining \$90,000 will be complemented by \$10,000 from other College resources to provide a \$100,000 allocation for planning and engineering work associated with the development of an isolation facility at the Marion duPont Scott Equine Medical Center in Leesburg.

"Very compelling cases can be made for the immediate development of both of these capital projects, and we look forward to making significant progress on each," said VMRCVM Dean Peter Eyre. "We are very grateful that the General Assembly and Governor Gilmore created this public/private sector bridge which will benefit citizens from throughout the region."

Under the terms of the legislation, one quarter of one percent from



the pari-mutuel pools generated by live horse racing within the Commonwealth of Virginia involving win, place and show wagering, and one quarter of one percent from pari-mutuel wagering pools generated by win, place and show wagering at satellite facilities will be dedicated for equine research and marketing programs at Virginia Tech, the Virginia Horse Industry Board, and the Virginia Horse Center in Lexington.

Sixty percent of that amount is earmarked for programs in the Virginia-Maryland Regional College of Veterinary Medicine, the Marion duPont Scott Equine Medical Center at Morven Park and Virginia Tech's College of Agriculture and Life Sciences.

In addition to the capital projects supported by the new public monies, portions of a \$2.7 million gift from the estate of the late Patricia Bonsall Stuart of Albemarle County are supporting several new equine research projects conducted by faculty members on both the Blacksburg and Leesburg campuses.

The nearly \$2.7 million gift was divided equally between the university's College of Agriculture and Life Sciences and the Virginia-Maryland Regional College of Veterinary Medicine. The VMRCVM has used its \$1.34 million portion of the gift to establish an endowment that will support equine research.

A committee of faculty members from the college's Blacksburg and Leesburg campuses was established to evaluate and fund proposals. That committee has met and made the first round of research project allocations, according to Dean Peter Eyre. A total of \$35,108 in funding this year was awarded from interest generated from

the endowment.

Programs funded from the initial allocation of Stewart Research Grants include: Validation of lithium dilution cardiac output determination in neonatal foals, Dr. Martin Furr, \$10,000; The effect of oral chondroitin sulfate/ glucosamine HCl on chondroitin sulfate concentration and sulfation pattern ratio in serum, synovial fluid and articular cartilage from normal horses, Dr. Rick Howard, Department of Large Animal Clinical Sciences, \$10,000; Effects of aerosolized sodium nitroprusside (a nitric oxide donor) on pulmonary and systemic vascular pressures of adult horses, Dr. Michael Murray, Equine Medical Center, \$6098; and Effect of diet, magnesium sulfate, and intravenous acetated ringer's solution and oral water on hydration, pH, electrolytes, and osmolality of the equine right dorsal colon, Dr. Nathaniel White, \$9010.

Faculty members on the committee included Dr. John C. Lee, associate dean for research and graduate studies, Peter Eyre, VMRCVM dean, Dr. Martin Furr, associate professor, Equine Medical center, Dr. Nathaniel White, Theodora Ayer Randolph Professor of Surgery, Equine Medical Center, Dr. R. Scott Pleasant, associate professor, Department of Large Animal Clinical Sciences, Dr. Mark Crisman, associate professor, Department of Large Animal Clinical Sciences, and Dr. John Robertson, professor, Department of Biomedical Sciences and Pathobiology.

"Our College operates well established research, clinical and instructional programs on both of our Virginia

Please see **Equine Programs**: page 18

# Nagarkattis' Research Zeroes in on Killer Molecule, May Help Diagnose, Treat, Even Prevent Dioxin Toxicity

By Sally Harris, College of Arts & Sciences

Prakash and Mitzi Nagarkatti, who have already discovered a step in dioxin toxicity-concerning a molecule in the body that plays a crucial role in dioxin poisoning-that may enable them to develop diagnostic, treatment, and even prevention methods in the future, have received an \$816,000 four-year grant from the National Institutes of Health. The grant will enable them to pursue research aimed at discovering ways to prevent the attachment of that killer molecule to other cells or even prevent its activation by dioxins.

Dioxin is a highly toxic environmental pollutant formed as a by-product of industrial processes during the manufacture and bleaching of paper. It is one of the most biologically potent chemicals, a member of the family of compounds known as halogenated aromatic hydrocarbons (which includes PCBs) that are found in herbicides, pesticides, automobile exhausts, and municipal and industrial waste, according to Prakash Nagarkatti, a professor in the Department of Biology in the College of Arts and Sciences and principle investigator for the grant.

Dioxin has been known to cause severe toxicity in the liver and in many other organs and is known to promote cancer and cause birth defects in experimental animals. The immune system, which is very important to maintaining normal health, is very sensitive to dioxins, which may suppress the immune system even at concentrations so low they do not cause toxicity in organs. Because alterations in the immune system can make people susceptible to infections, cancer, allergies, and autoimmunity, "the major concern about dioxin and other environmental contaminants is whether they can alter the immune functions to the extent that it would make an individual more susceptible to various clinical disorders," Nagarkatti said. For these and other reasons, federal agencies such as the

Environmental Protection Agency and National Institutes of Health are concerned about the effect of these pollutants on public health.

Nagarkatti and Mitzi Nagarkatti, a professor in the Department of Biomedical Sciences and Pathobiology in the Virginia-Maryland School of Veterinary Medicine at Virginia Tech and co-principle investigator on the grant, have already shown in their lab that dioxin kills the immune cells using a unique process called apoptosis. "In this process," Prakash Nagarkatti said, "the cells commit suicide by destroying their own DNA." The Nagarkatti lab has identified a protein molecule involved in such killing, and dioxin treatment seems to activate the molecule, resulting in the killing of the immune cells.

The molecule, CD-95 ligand, is a member of a family of proteins that occurs naturally in the body, and its function is to kill cells that are not needed. "It is a killer molecule," Nagarkatti said, "but usually it does its job and is then neutralized by the body." A Japanese scientist discovered the molecule, and recent studies by the NCI and the EPA showed that dioxin is a carcinogen. But no one knew the mechanism through which the dioxin caused toxicity. The Nagarkattis were the first to demonstrate that the dioxin turned on the CD-95 ligand molecule in a way that it could not be turned off and that the molecule then killed immune cells. If other related environmental pollutants use a similar mechanism to cause toxicity, the Nagarkattis' research can be applied to the other chemicals in the family found in herbicides, pesticides, Agent Orange, auto exhausts, and incinerators. The Nagarkattis' identification of the role of the CD-95 ligand molecule enables scientists to provide avenues to block the toxicity.

In the research funded by the latest NIH grant, the Nagarkattis will use antibodies against the toxic molecule. The antibodies are molecules that recognize the toxic molecule and prevent it from attaching

to and killing other cells. They will test available antibodies and develop others to see which are most effective.

Now that the Nagarkattis know the mechanism by which dioxin becomes toxic, they can aid in finding ways to diagnose, treat, and prevent dioxin's damage in the body. They can help with diagnosis by developing tests to determine whether a person has been exposed to a high level of dioxin (by determining if the killer molecule shows up in high levels). They can help develop treatments for people who have been exposed by developing antibodies, and they can determine the safe levels of the dioxin to help prevent toxicity in the first place.

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## Equine Programs: continued from page 17

campuses," said Eyre. "Our goal is to transform the Stuart's generosity and love for the horse into a meaningful and lasting tribute to their love for horses, and we have committed ourselves to do that."

Mrs. Stuart, who died in 1996, and her husband, Herbert, who died earlier, were avid horse enthusiasts and breeders of quality Arabian horses. They owned and operated a 200-acre farm near Batesville in Albemarle County. She and her husband were among the earliest supporters of the movement to build a veterinary college in Virginia and helped convince state legislators of the need to establish the college.

Mrs. Stuart was active in the Virginia Horse Council, serving as president in the late 1980's. She was also active in the American Horse Council.

Virginia's horse industry contributes more than \$1 billion in sales to businesses and individuals in virtually every locality in the commonwealth, according to a 1995 study.



## Smith Honored with Alumni Teaching Award

By Cindy Harris

Everyone's opinions differ in this world. However, most people can probably agree that there are several qualities that make up an excellent teacher. A few of these include having a vast amount of knowledge on the subject matter, an effective and interesting way to communicate that information, and a passion and love for both teaching and for the students.

Bonnie Smith, associate professor in the Department of Biomedical Sciences and Pathobiology, symbolizes all of these qualities, and more. She has been selected to receive the 1999 Alumni Award for Teaching Excellence.

In terms of subject knowledge, Dr. Smith is more than qualified. She received all four of her degrees from Ohio State University. After majoring in Zoology in undergraduate and graduate school, she taught high school biology courses for one year and lectured for one year at The Ohio State University, in the undergraduate biology program.

Next she went to veterinary school, graduating cum laude and then received her Ph.D. in Veterinary Anatomy. She came to the VMRCVM in August of 1991 as a part time assistant professor and in January of 1994, was appointed to a tenure-track assistant professor position. She currently teaches three courses: Gross Anatomy, Descriptive Embryology, and Functional Morphology of Reptiles and Birds.

Another equally important quality of an excellent teacher is being able to effectively communicate the subject matter to the students. Dr. Smith, once again, displays these exemplary qualities. She received nine teaching awards in eleven years of teaching. She also received two Merck Foundation AGVET Awards for Creativity in Teaching, and the Carl J. Norden Distinguished Teaching Award.

"Dr. Smith is a fantastic teacher. She not only makes every topic that she teaches interesting, she makes every section learnable. She meticulously organizes and prioritizes the information so that the student learns the most important information first and can then delve into deeper and deeper layers," one student said of Dr. Smith.

Her students admire and appreciate her teaching style, as well as her colleagues. "Dr. Smith is a dynamic, enthusiastic teacher who presents well-organized, straight forward lectures," said a fellow faculty member on a peer evaluation.

Finally, in terms of excellence in teaching, having a passion and a love, for both teaching and for the students, is a necessity. Dr. Smith strongly agrees. "I love these students, that's why I'm here," she said. She feels her students are focused, motivated and intelligent. "They eat everything up and just want more."

Dr. Smith feels that a good teacher needs to have a love of his or her subject, if they are not excited about what they are doing, they won't excite the students. She stated it remarkably when she said "to be a good teacher is a two-way street, you can't achieve excellence in teaching without excellence in students."



## VMRCVM'S Forrester Earns Wine Award

When you consider the concern for students and passion for teaching Dr. S. Dru Forrester brings to her work in the veterinary college, it's easy to understand why she was recently appointed the college's part-time Director of Student Affairs.

What becomes a bit more baffling, however, is how she manages to find time for the 35 percent administrative appointment.

With a substantial teaching load in the professional curriculum, responsibilities for training post-graduate interns and residents, treating patients as an board-certified internist in the Veterinary Teaching Hospital, and managing the unpredictable complexities of student affairs, it gets a bit mind-boggling.

But Forrester, honored this year with a W.E. Wine Award for Excellence in Teaching, manages to keep it all in balance by keeping a firm gaze on the reason she's in academia: the opportunity to teach.

"Nothing is more exciting to me than walking into a classroom full of students and talking with them for an hour," says Forrester, who joined the college faculty in 1990, the same year she earned Diplomate status in the American College of Veterinary Internal Medicine.

Forrester's core instructional goal is to help her students sharpen their problem-solving skills by teaching them to apply knowledge appropriately. She invigorates lectures with case examples from her experiences as a clinician, and she takes full advantage of faculty enrichment programs such as the university's Center for Excellence in Undergraduate Teaching.

In fact, she has attended more than 35 workshops, conferences and seminars on teaching, and read over 20 books in order to help her enhance her teaching effectiveness. And it shows.

Student and peer evaluations of her teaching are off the charts, including a 5.9 out of 6 for a class on Small Animal Problem-Solving, and the highest ever score recorded by the College's Departmental Peer Evaluation of Teaching Committee.

Since 1992, Dr. Forrester has received numerous commendations for teaching excellence, including the prestigious Carl J. Norden Distinguished Teaching Award, two Creativity Awards for Innovative Teaching, a College Teaching Award and a Virginia Tech Certificate of Teaching Excellence.

In addition, she was honored with Teaching of the Year Awards by the Classes of 1993, 1994, 1997, 1998 and 1999, and invited to deliver the College's Commencement Address by the Class of 1996.

"It's a tremendous honor to be recognized with a Wine Award," said Forrester, "Especially when you consider the quality of the teachers we have here in our college and at the University."

She is a major user of modern instructional technology in the classroom and has been awarded several educational grants to help create web-based instructional materials. She maintains four web-sites with about 1,500 digital images and 750 files that provide students with access to materials about clinical patients.

While intrigued with the theory and practice of excellence in teaching, Forrester also is sincerely concerned for the well being of her students.

"I love working with her," said Jo Byron, president of the Student Chapter of the American Veterinary Medical Association. "She's phenomenal. She's always a good ear, and she's always reachable."



# Commencement 1999

## 16<sup>th</sup> Class Graduates

The region's newest veterinarians were awarded their academic credentials during the Virginia-Maryland Regional College of Veterinary Medicine's 16<sup>th</sup> commencement ceremony on May 14 at Virginia Tech.

Seventy-nine DVM degrees, four Ph.D. degrees, nine M.S. degrees and six Certificates of Residency were awarded during the college's 16<sup>th</sup> annual "Graduands' Ceremony."

Featuring dignitaries from both Virginia Tech and the University of Maryland, the colorful pageant included the administration of the "Veterinarian's Oath," the "Hooding Ceremony," and the presentation of numerous awards and honors.

In keeping with recent tradition, the keynote address was presented by a faculty member selected by the class. Dr. Kevin D. Pelzer, associate professor, Large Animal Clinical

Sciences, presented the 1999 address.

Dr. Peter W. Schmitt, president of the Virginia Veterinary Medical Association, swore the 79 new veterinarians into the profession, and Dr. Edward H. Stephenson, president of the Maryland Veterinary Medical Association, welcomed them on behalf of organized veterinary medicine.

Dr. W. Edward Monroe, associate professor, Department of Small Animal Clinical Sciences, received the Dr. and Mrs. Dorsey Taylor Mahin Award for Clinical Excellence, an award that honors veterinarians who display skill and compassion in service to animals and people.

Class of '99 Valedictorian Jennifer A. Coates was presented with the Richard B. Talbot Award, and Dr. Susan E. Little, Class of '93, was named the college's Outstanding Young Alumna for 1999.

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



With a humorous and inspiring commencement address from Large Animal Clinical Sciences Associate Professor Kevin Pelzer, the administration of the "Veterinarian's Oath" to new graduates, and the presentation of diplomas, the annual "Graduands' Ceremony" lived up to its billing as the most illustrious day of the annual academic calendar. (Right) Fourth-year students were recognized for earning a variety of academic scholarships during the annual graduation luncheon. Seated, from left to right, Dr. Michael Reardon, director of Admissions; Dr. Stephen Holladay, associate professor, Biomedical Sciences and Pathobiology; Dr. Edward Stephenson, VetSmart, and President, MVMA; Dr. Will Hueston, Associate Dean-Maryland Campus; and Dr. Charles Steger, vice president for development and university relations at Virginia Tech.



# Richmond Businessman Honored by State Veterinary College

Prominent Richmond businessman Cecil R. Maxson, Jr. was inducted into the John N. Dalton Society during the college's 16<sup>th</sup> veterinary commencement ceremonies.

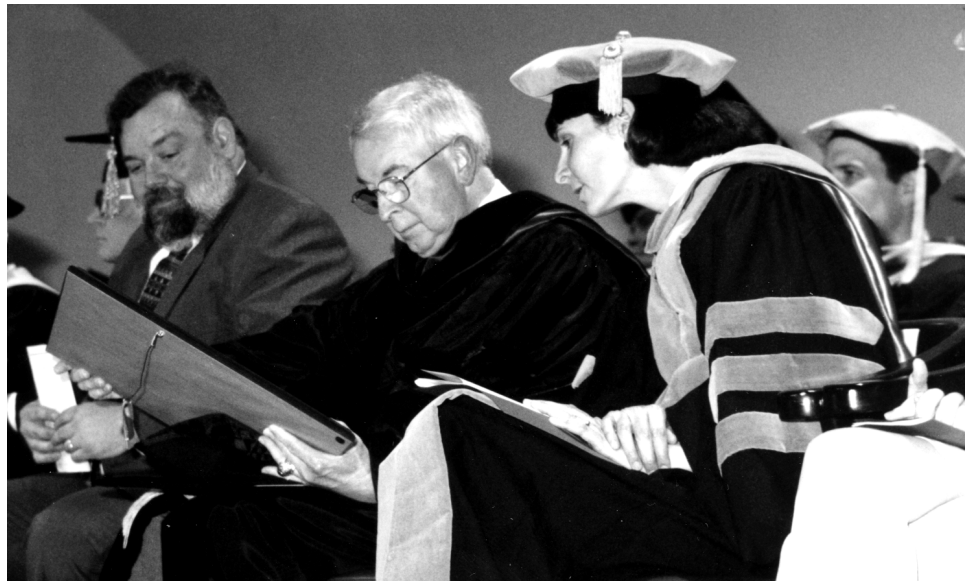
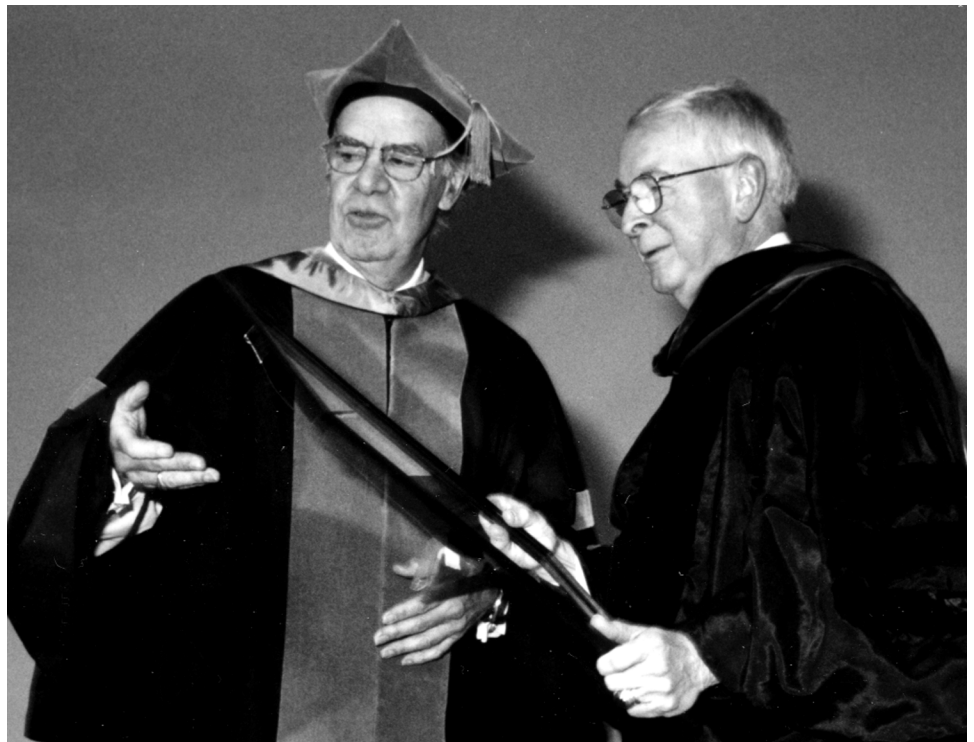
Maxson earned a degree in building construction from Virginia Tech in 1956 before beginning a 40-year career with Western Electric, C & P Telephone, and NationsBank Corporation. Prior to graduating from Virginia Tech, he served his nation in military service as a 1<sup>st</sup> Lieutenant with the U.S. Army Corps of Engineers.

"Cecil Maxson has served as an informal ambassador and advocate for the regional veterinary college in all of his activities around the Commonwealth," said Dean Peter Eyre. "He has shared his time and his resources as a member of our Volunteer Campaign Committee and been an important factor in our success."

During his 25-year career with NationsBank, he held a variety of executive positions with broad responsibility in facilities management, construction management and real estate development. Upon retiring, he was Senior Vice President, Manager, Corporate Real Estate Services, Mid-Atlantic States.

He has most recently served the Commonwealth as a business and project consultant who oversaw the development and construction of the Virginia Biotechnology Research Park in downtown Richmond on the personal request of Virginia Commonwealth University President Dr. Eugene Trani.

Maxson has served on a number of Richmond area community service organizations, including the Richmond Regional Transportation Advisory Commission, the Board of Directors of the Richmond Eye & Ear Hospital, the Board of Trustees of Bon Secours St. Mary's Health Corporation, board-



Top, Dean Eyre presents Richmond businessman Cecil R. Maxson, Jr. with a Dalton Society commemorative. Below, from left, Virginia Veterinary Medical Association President Peter W. Schmidt, Maxson, and Dr. S. Dru Forrester, director of student affairs and associate professor, Department of Small Animal Clinical Sciences.

member and past president of the South Richmond Rotary Club, and the Richmond Chamber of Commerce.

He has served for a total of 12 years as a member of the Virginia Tech Board of Visitors, including eight years as chair of the Building and Grounds Committee, and eight years as a member of the Executive Committee. He has also served on the College of Architecture and Urban Studies Advisory Council since 1983, including a six-year period as vice-chair. He is a member of the university's Ut Prosim Society, the

Legacy Society, the William Preston Society and as an Endowed Golden Hokie.

The John N. Dalton Society of the Friends of the Virginia-Maryland Regional College of Veterinary Medicine recognizes those individuals who have performed most distinguished service to the Virginia-Maryland Regional College of Veterinary Medicine. The society honors the late Virginia Governor John Dalton, who signed the legislation which established the regional veterinary college.

# Names in the news

## BLACKSBURG NEWSMAKERS

**Dr. Ansar S. Ahmed**, an associate professor in the College's Department of Biomedical Sciences and Pathobiology, recently presented papers at two international meetings in India. "Immunological Consequences of Exposure to Estrogens: Aberrant Spontaneous and Induced Lymphocyte Activation," was presented at the VII International Congress of Reproductive Immunology in New Delhi, India.

He also presented "Importance of sex hormones in autoimmunity: Implications to Myasthenia Gravis," at the International Myasthenia Gravis Workshop in Mysore, India. His international travels were partially supported by the International Congress of Reproductive Immunology.

**Dr. Grant Turnwald**, associate dean for academic affairs, has co-authored the third edition of "Small Animal Clinical Diagnosis by Laboratory Methods," a major reference text in veterinary medicine. Turnwald is also a professor in the Department of Small Animal Clinical Sciences.

**Dr. Craig D. Thatcher**, professor and head, Department of Large Animal Clinical Sciences, recently gave presentations on "Compounding Parenteral Nutrition Solutions," "Nutritional Assessment of the Critical Patient," "Enteral Nutritional Support," "Enteral Nutrition: Case Presentations," "Parenteral Nutritional Support," "Parenteral Nutrition Support: Case Presentations," "Nutritional Support" at the Western States Veterinary Conference in Las Vegas, Nevada.

**Dr. Jerry Roberson**, an assistant professor in the Department of Large Animal Clinical Sciences, was one of the featured speakers at the National Mastitis Council Annual Meeting, which was recently held in Arlington, Virginia. His presentation was titled "Epidemiology of *Staphylococcus aureus* on Dairy Farms."

**Dr. John J. Dascanio**, an associate professor in the Department of Large Animal Clinical Sciences, recently gave a presentation at the Association for Veterinary Informatics' Fourth Annual Talbot Symposium at the 1999 AVMA meeting in New

Orleans. His presentation was entitled "A World Wide Web Site for Basic Equine Practice Management Information."

Several anatomic pathologists, a resident and a junior student in the Department of Biomedical Sciences and Pathobiology recently attended the 27<sup>th</sup> Annual Southeast Veterinary Pathology Conference in Tifton, Georgia. **Dr. Robert Duncan**, assistant professor, presented a case on malignant angioendotheliomatosis in a cat; **Dr. Larissa Bowman**, clinical instructor, presented a case on cryptococcosis in a cat; **Dr. Geoffrey Saunders**, associate professor, presented a case on systemic granulomatous disease in cows that ate citrus pulp; and **Dr. Don Prater**, resident, presented a case on encephalitis in a dog.

**Dr. Bernard Jortner**, a professor in the Department of Biomedical Sciences and Pathobiology recently presented "Mechanisms of Toxic Injury to Peripheral Nerve" at the annual meeting of the Society of Toxicological Pathologists in Washington D.C. This article will also be published in Toxicologic Pathology.

**Dr. Hara P. Misra**, a professor in the Department of Biomedical Sciences and Pathobiology, recently chaired a platform session entitled "Antioxidants and Oxidative Injury" and presented several papers at the 38<sup>th</sup> Annual Meeting of the Society of Toxicology in New Orleans. The papers were entitled "The role of pirfenidone in scavenging hydroxyl radicals" and "A comparative study of a typical antipsychotic drug haloperidol and an atypical antipsychotic olanzapine in ameliorating oxidative stress."

Misra has also received a grant from the US-EPA to study the effects of pesticide mixtures in age-related immunotoxic risk: the role of free radicals.

**Dr. Hoyt Cheramie**, a clinical instructor in the Department of Large Animal Clinical Sciences, recently had an article published in the academic journal *Veterinary Surgery*. His article is entitled the "Evaluation of a Technique to Occlude the Internal Carotid Artery of Horses."

**Dr. David Lindsay**, an associate professor in the Department of Biomedical Sciences and Pathobiology, has recently had several articles he wrote published in academic journals. "Development of *Sarcocystis falcatula* in cell cultures demonstrates it is different from *Sarcocystis neurona*" was published in the journal *Parasitology*. "*Neospora*

*caninum* and the potential for parasite transmission" was published in the journal *Compendium on Continuing Education for the Practicing Veterinarian*. "Determination of the activity of pyrimethamine, trimethoprim and sulfonamides and combinations of pyrimethamine and sulfonamides against *Sarcocystis neurona* in cell cultures" and "Confirmation that the dog is a definitive host for *Neospora caninum*." were published in the journal *Veterinary Parasitology*.

Lindsay also served as session chair and presented "Activity of decoquinatate against *Cryptosporidium parvum* in cell cultures" at the 16<sup>th</sup> Annual meeting of the Southern Conference on Animal Parasites in Biloxi, Mississippi.

As president of the Southeastern Society of Parasitologists, Lindsay conducted the business meeting and presented "Tissue cyst induced *Neospora caninum* infections in dogs" and "Coccidia (Protozoa: Eimeriidae) of white-tailed deer, *Odocoileus virginianus*." at the annual meeting of the Southeastern Society of Parasitologists in Columbiana, Alabama.

Lindsay is immediate past president of the Animal Disease Research Workers in the Southern States.

**Dr. Thomas Inzana**, professor, Department of Biomedical Sciences and Pathobiology, has recently published a book entitled "The *Haemophilus somnus* Complex." The book was published as part of W.B. Saunders' Current Veterinary Therapy: Food Animal Practice series.

Inzana also published an article entitled "Use of a bilayer stacking gel to improve resolution of lipopoly-saccharides and lipooligosaccharides in polyacrylamide gels" in the journal *Electrophoresis*.

Inzana also edited a book entitled "Laboratory diagnosis of zoonotic infections: viral rickettsial, and parasitic agents obtained from food animals and wildlife" which was published by ASM Press in Washington, D.C.

**Dr. Ansar S. Ahmed**, associate professor, Department of Biomedical Sciences and Pathobiology, recently presented an invited lecture at a "Frontiers in Autoimmunity" Symposium. The symposium was presented by the University of Michigan's Multipurpose Arthritis and Musculoskeletal Diseases Center and the Michigan Diabetes Research Center in Ann Arbor. Ahmed's talk was entitled "Natural, Synthetic and Environmental Estrogens: Impact on Immunity and Autoimmunity."

**Jeffrey S. Douglas**, college director of public relations, has been

elected President-elect of the Association of Veterinary Advancement Professionals, a national organization of public relations and fund-raising professionals at North American colleges of veterinary medicine.

**Dean Peter Eyre**, has been elected to the board of directors of the Association of American Veterinary Medical Colleges. He has also been appointed to the American Veterinary Medical Association's Legislative Advisory Committee and the Board of Directors of the Appalachian Region of the American Red Cross.

**Dr. Terry Swecker**, associate professor, Department of Large Animal Clinical Sciences, has been elected Chairman of the Board of Regents of the American College of Veterinary Nutrition.

**Donna Ford**, administrative assistant, Office of Academic Affairs, has been awarded the 1999 Dean and Department Area Staff Award. The award is intended to recognize the exemplary behavior of classified staff personnel.

**Dr. Craig Thatcher**, head, Department of Large Animal Clinical Sciences, made a presentation on veterinary college economic impact studies at a meeting of the Association of Veterinary Advancement Professionals held in conjunction with the annual meeting of the American Veterinary Medical Association in New Orleans.



## A Note of Thanks

by Frank Pearsall, DVM '84

This has been another great year due to the outstanding generosity of so many. Over \$875,000 has come in split about 2:1 operations vs. endowment. Additionally another \$800,000 has been placed in estate provisions for endowment, with more to be finalized. We continue to be humbled by the outpouring of support and enthusiasm for the mission of the profession and the College. As you can tell by the many stories in this issue, it is an exciting time in the life of the College. After a brief period of stabilization after achieving our second decade of existence, we are off and running again developing a new vision of what we can be, setting new goals to make that vision a reality, and planning the steps to get there.

Much of this is made possible by the quiet, solid support and involvement of many, many people who make animals a priority in their lives. You can look in any direction and find examples. Teachers, administrators, clinicians, technicians, support personnel, students, clients, referring veterinarians (who refer not just patients, but also students and patrons), legislators, regulatory personnel... the list goes on and on, and includes you. Working with you, to help support what you think is important and make your support count, is both an honor and a privilege. I'd like to share with you briefly a story about just one of you that I have the pleasure of calling friends.

Mrs. Mildred S. Corder grew up in Berwyn, Maryland and later on a farm in Idaho. She remembers fondly a scene where her mother was carrying her pet rooster, "Alexander", in one hand and some freshly churned butter in the other and the look of surprise when Alexander dove, bill first, into it. As an only child her father encouraged her love of animals, including the many rabbits, among other pets. Her cousins had horses which was another source of fun. Unfortunately a rail strike made farming economically hazardous, so much to her regret, she was moved back East to D.C. when her father resumed his position as an attorney with the I.C.C.

Being industrious, she always worked summers and being of an appreciative and gentle personality, she always had great bosses. She worked a summer in the Castle at the Smithsonian and loved it. Then it was off to business school to prepare for a lifetime of office work in various government and non-government jobs. She met her husband, Herman, in 7<sup>th</sup> or 8<sup>th</sup> grade. They remained sweethearts and were married shortly after high school. He went on to become a CPA, taught and achieved recognition and advancement as a leader in his profession among the accountants in the District.

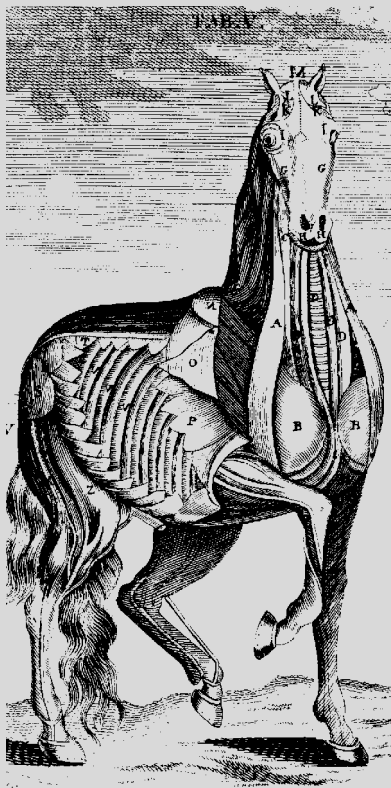
Public image of serious accountants notwithstanding, Mrs. Corder says that "Corder" was even sillier about animals than she was. Although she belies the difficulty of the challenge, Mrs. Corder was one of a few stalwarts who, with nothing but determination, began the Arlington Animal Welfare League. She told me that the first building was built by those volunteers themselves using materials and bricks found on the donated site. Arlington at that time was rural, a difficult concept to grasp today. Another difficult concept for us is to realize that there was extreme public prejudice against spaying and neutering then. Without a willingness to do a little bit of everything, get their hands dirty, and find veterinarians who would support them, they never would have been able to convince the county that they had a good deal in the growing numbers of volunteers seeking to do something about the stray pets roaming the county. Eventually the county began to provide support. Of course, "Corder" did the books, and they both put what they could towards the cause. Today, the Arlington Animal Rescue League is an institution of stature. Remembering their past and her efforts, Mrs. Corder was recently honored by the League for her commitment to seeing their mission firmly established.

Over the years they did not have many pets, but each had a long and happy life in the Corder household. "Sandy McGregor", a black Scottie, was their first puppy, the first gift of the new husband to his bride. "Catina", a beautiful cat and companion of the couple for 14 years, still holds a special place in Mrs. Corder's heart.

Long before anyone here at the College knew of the Corder's, they provided that the majority of their estate should pass to the College to help animals by helping those devoted to their care. The multi-million dollar bequest is the largest gift to the College to date. Just as the simple but earnest beginnings of the Arlington Animal Rescue League have grown to become a national model of excellence, so the testamentary considerations made by a devoted couple will create a program which will continue their hard work and dreams in perpetuity. And the world will continue to be a better place for their efforts.

## Equine Update '99

*A look at the Virginia Horse Industry and its Academic Foundations*



## Equine Update '99 Scheduled at EMC

"Equine Update 1999," an informational session for professional communicators and interested members of the horse community, will be held on Friday, October 8, 1999 from 10 a.m. - 2 p.m. at the Marion duPont Scott Equine Medical Center at Morven Park in Leesburg.

Featuring comments from horse industry and political officials and a series of research presentations by equine veterinarians from the Blacksburg and Leesburg campuses, the meeting will take a look at the Virginia horse industry, racing, and the academic foundations which support it.

Bette Brand, Virginia Horse Council delegate to the Virginia AgriBusiness Council, will be on hand to present an overview of the industry on the cusp of the 21<sup>st</sup> century and the Honorable Andy Guest, the Delegate who sponsored Virginia's racing legislation will discuss the current state of pari-mutuel racing and Colonial Downs.

Other speakers will include Dean Peter Eyre and EMC Director G. Frederick Fregin.

While the program is tentative at press-time, research presentations will include a presentation on alternative therapies in equine medicine by Dr. Mark Crisman, associate professor, Department of Large Animal Clinical Sciences, Blacksburg Campus; equine joint

Disease by Dr. Rick Howard, assistant professor, Department of Large Animal Clinical Sciences, Blacksburg Campus; and a presentation on the Center for Immunological Investigations by Dr. Virginia Buechner-Maxwell, associate professor, Department of Large Animal Clinical Sciences, Blacksburg Campus.

Also, a presentations on lameness and colic will be made by Dr. Nathaniel White, Theodora Ayer Randolph Professor of Surgery, Marion duPont Scott Equine Medical Center, a talk on equine gastric ulcers will be presented by Dr. Michael Murray, Adelaide C. Riggs Professor of Internal Medicine, Marion duPont Scott Equine Medical Center, and a presentation on Equine Protozoal Myelitis (EPM) will be made by Dr. Martin Furr, associate professor, Marion duPont Scott Equine Medical Center.

Dr. David Kronfeld, Paul Mellon Distinguished Professor of Agriculture, Middleburg Agricultural Research and Extension Center, will make a presentation on advances in equine nutrition, and Dr. Patty Doyle, clinical instructor, Marion duPont Scott Equine Medical Center, will discuss nuclear imaging.

Dr. Ken Sullins, associate professor, Marion duPont Scott Equine Medical Center, will discuss advancements in laser surgery.

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## EMC Announces New Staff

Three new veterinarians have been hired as clinical instructors and interns in the Marion duPont Scott Equine Medical Center at Leesburg.

Dr. Brett Woodie has joined the EMC staff as a clinical instructor/research associate. Woodie received his BS in Animal Science, his DVM from North Carolina State University and his MS from The Ohio State University.

Dr. Yvette S. Nout has joined the EMC staff as an intern in equine medicine and surgery. Nout received her bachelor degree and her DVM from

the Universiteit Utrecht, in Utrecht, The Netherlands.

Dr. Anthony P. Pease received his BS in Animal Science from the University of Maryland, College Park and his DVM from the Virginia-Maryland Regional College of Veterinary Medicine. Pease has also joined the EMC staff as an intern in equine medicine and surgery.



## Legislative Trail Ride



The Virginia Horse Council's annual Legislative Trail Ride was held at Morven Park on a pristine day in May. Left, Virginia Attorney General Mark Early and Equine Medical Center Director Dr. G. Frederick Fregin look on to make sure safety helmets are properly fitted on the Early children. Above, David Lamb of Gordonsville, Virginia leads a group of riders through some pasture-land at the beautiful Morven Park complex.

## Larmore Hired to Lead Equine Development Programs

Catherine C. Larmore has been hired as Virginia Tech's Director of Development for Equine Programs.

As such, she will be based in Northern Virginia and work closely with Marion duPont Scott Equine Medical Center Director G. Frederick Fregin and Middleburg Agricultural Research Station Director David S. Kronfeld in operating comprehensive fundraising operations designed to advance Virginia Tech's many equine-related academic, service and research programs.

Larmore most recently served as Director of Development for the University of Pennsylvania School of Veterinary Medicine's New Bolton Center in Kennett Square.

Prior to that she served as director of external affairs and coordinator of media and public relations at New Bolton Center.

Larmore earned an undergraduate degree from Earlham College and conducted graduate work at Temple University and the University of California.

She is a member of a number of national organizations, including the Council for the Advancement and Support of Education, the National

Society of Fund Raising Executives, the American Horse Council and the National Steeplechase Association.

### EMC NEWSMAKERS

**Dr. Nathaniel A. White, II**, the Theodora Ayer Randolph Professor of Equine Surgery at the Marion duPont Scott Equine Medical Center in Leesburg, presented four lectures at an equine veterinary continuing education meeting presented by the American Association of Equine Practitioners in Maui, Hawaii. Those lectures were "Diagnosis of Colic," "Medical Treatment of Colic," "Intestinal Distention," and "Colic Cases." White also authored two textbook chapters. "Second and Fourth Metacarpal and Metatarsal Fractures" and "Pathophysiology of Obstruction, Strangulation/Strangulation Obstruction Ischemia" were both published in *Equine Medicine and Surgery* published by American Veterinary Publications of Santa Barbara, California.

**Dr. White**, also gave presentations at the Central Veterinary Conference in Kansas City, the ACVS Veterinary

Symposium in Chicago, the Sixth Equine Colic Research Symposium at the University of Georgia in Athens and the AAEP Continuing Education Meeting in Hawaii. White also authored chapters in *Current Techniques in Equine Surgery and Lameness, Equine Medicine and Surgery, and Pathophysiology of Obstruction, Strangulation, Strangulation/Obstruction Ischemia*.

## College Park Presents Class of 2003, Awards Scholarships

The College Park Campus recently celebrated the Class of 2003 and other honorees during their Annual Awards and Scholarships Celebration at the Avrum Gudelsky Veterinary Center at the University of Maryland.

Dr. Will Hueston, associate dean and head of the Department of Veterinary Medicine at College Park; Dr. Peter Eyre, dean of the VMRCVM; Dr. Thomas Fretz, Dean of the College of Agriculture and Natural Resources at VMCP; Dr. Edward Stephenson, President of the Maryland Veterinary Medical Association; and Dr. Roger Olson of the Maryland Department of Agriculture provided welcoming remarks and introductions.

Next, Dr. Peter Loizeaux, a lecturer of Preventative Veterinary Medicine and Government and Corporate Veterinary Medicine on the College Park campus, introduced the class of 2003.

Dr. Hueston unveiled the HB-710 (the "Amoss Bill") Commemorative Plaque. This recently enacted Maryland legislation helped fortify the college's regional foundations. Hueston also presented the Gary Lee Lake Memorial Scholarship to first-year students Jennifer Landolfi and Jennifer Price. The scholarship is presented to Maryland residents who demonstrate a sincere and dedicated interest in veterinary medicine and complete required academic courses at the University of Maryland.

Next, Dr. Sukanta Dutta presented the Avrum Gudelsky Veterinary Graduate Student Award to graduate students Dr. Dominic Travis, Dr. Andrea Vicari, Rowena Watson, Meggin Brandt, and Joseph Hsiao. This award was presented in recognition of their exemplary graduate

research in veterinary medicine.

Dr. Edward Mallinson presented the David Bruce Snyder Memorial Award for Avian Molecular Epidemiology to Zhuhui Huang. The award recognizes exemplary graduate research in avian molecular epidemiology and commemo- rates former College Park faculty member Dr. David Snyder's contribu- tions to poultry disease research and diagnostics.

Next, Dr. Hueston presented the

Hatzios Scholarship for Veterinary Medical Research to Vasudevan Krishnamurthi. The scholarship fund was established by the Hatzios family to provide research fellowships to veterinary graduates for the study of pathology and microbiology of diseases of animals and fish, with special emphasis on the application of biotech- nology/molecular biology pertaining to the pathogenesis of diseases.



Dr. Peter Gasper (right) and Jeremy Michalke at work in a laboratory.

## Honors Student Presented with Howard Hughes Medical Institute Undergraduate Research Fellowship

Dr. Peter Gasper, an assistant professor at the Maryland Campus, recently announced that Jeremy Michalke, a microbiology honors student, was recently awarded a Howard Hughes Medical Institute (HHMI) Undergraduate Research Fellowship to work in his laboratory.

The Undergraduate Research Fellowship program is the centerpiece of the University of Maryland's HHMI initiative. Fellows receive a stipend and funds for research supplies to support faculty-mentored research.

Michalke's project is entitled "Distribution of Lymphohematopoietic Cells in Feline Fetuses" and it is being

conducted as a component of Dr. Gasper's NIH project, "Prophylaxis of Fetal Hemopoietic Cells for FIV in Cats."

Michalke recently presented his proposed research at the "Research, Performance, and Practice: Showcasing Excellence in Undergraduate Scholarship" conference, which was sponsored by Lilly/CTE Teaching Fellows and the University of Maryland Office of the Dean for Undergraduate Studies. The conference allowed students the opportunity to share the results of their work with colleagues and friends in a formal conference setting.

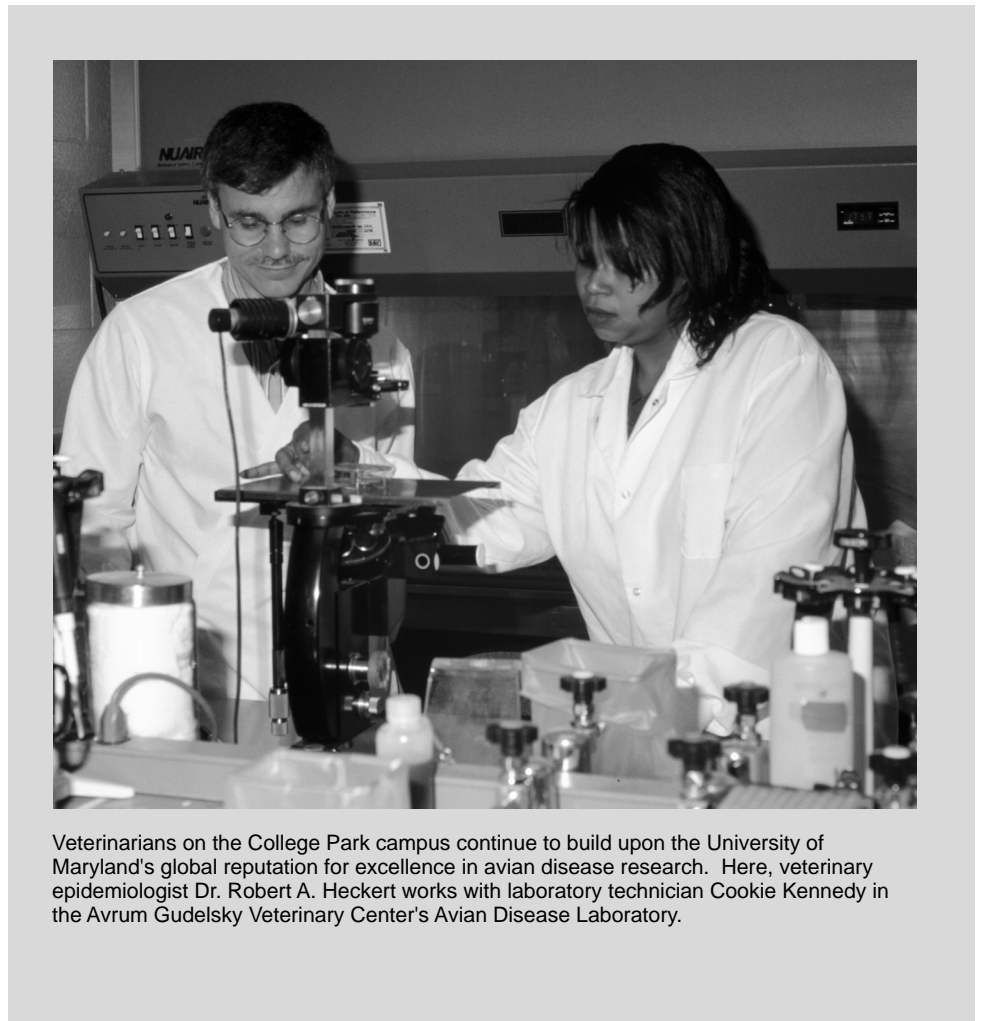
## MARYLAND NEWSMAKERS

**Dr. Robert Heckert**, assistant professor, College Park Campus, recently had two articles published in academic journals. "Evaluation of the hemagglutination-inhibition assay using a baculovirus expressed hemagglutinin-neuraminidase protein for detection of Newcastle disease virus antibodies" was published in *Veterinary Diagnostic Investigators*. "Experimental infection of emus (*Dromaius novaehollandiae*) with avian influenza viruses of varying virulence: Clinical signs, virus shedding and serology" was published in *Avian Pathology*.

Dr. Heckert also received a research award for Rapid DNA-based diagnostic technique for detection of a new *Mycobacterium* species in wild striped bass from the Maryland Agriculture Experiment Station at the University of Maryland.

**Dr. William Hueston**, associate dean and head of the Department of Veterinary Medicine at the Maryland Campus, recently presented lectures entitled "Exotic Pest & Disease Policy: Implications for California Agriculture, Environment, Local Communities and International Trade" and "Bovine Spongiform Encephalopathy (BSE): Managing risk in the face of uncertainty" at the University of California at Davis. Dr. Hueston also received a Certificate of Appreciation from the Food and Drug Administration: Center for Biologics Evaluation and Research, for his work as a member of the Transmissible Spongiform Encephalopathy Advisory Committee. He was also named an Honorary Diplomat of the American Veterinary Epidemiology Society.

**Dr. Yvette Johnson-Ifearulundu**, assistant professor, recently had several articles published in academic journals. "Distribution and environmental risk factors for paratuberculosis in dairy cattle herds in Michigan" was published in the *American Journal of Veterinary Research*. "Management-related risk factors for *M. Paratuberculosis* infection in Michigan, USA, dairy herds" was published in *Preventive Veterinary Medicine* and "A herd-level economic analysis of the impact of paratuberculosis on dairy herds" was published in the *Journal of the American Veterinary Medical Association*. Johnson-Ifearulundu also recently received several research awards. She received grants from the Maryland Agricultural Experiment Station for Manure Management Risk Factors for Bacterial Contamination of Surface Water Used in the Production of Striped Bass and for work on Statistical Methods for Identifying Sources of Bacterial Contamination of the Choptank River. Johnson-Ifearulundu will also be working on a pilot project entitled Creation of a Poultry



Veterinarians on the College Park campus continue to build upon the University of Maryland's global reputation for excellence in avian disease research. Here, veterinary epidemiologist Dr. Robert A. Heckert works with laboratory technician Cookie Kennedy in the Avrum Gudelsky Veterinary Center's Avian Disease Laboratory.

Operation Database for the Delmarva Poultry Industry.

**Dr. Siba Samal**, professor, received a grant from the USDA/NRI for work on the Production of Infectious Newcastle Disease Virus from cDNA: Potential for Vaccine Development and Basic Studies.

**Dr. Nathaniel Tablante**, assistant professor, recently gave a presentation entitled "Identification of Salmonella multiplication 'hot spots' in poultry litter" at the 48th Western Poultry Disease Conference in Vancouver, Canada. Tablante received a grant from the University of Maryland Agriculture Experiment Station for his work on Identification of Risk Factors Associated with Respiratory Disease Complex in Delmarva Poultry. Tablante was also selected as "Rookie of the Year" and was given an Award of Honor by the Extension Specialists Association, which demonstrates that he was selected as the outstanding junior extension specialist for Maryland Cooperative Education.

**Dr. Roberta Morales**, assistant professor, recently had several articles published in academic journals. "Economic Consequences of Salmonella enterica Serovar Enteritidis Infection in Humans and the U.S. Egg Industry" was published in *Salmonella enterica Serovar Enteritidis in Humans and Animals: Epidemiology,*

*Pathogenesis, and Control*. "Microbial Risk Assessment, Economics, and Food Safety" was recently published in the *Journal of the American Veterinary Medical Association*. "Risk Assessment and Economic Analysis for Managing Human Health Risks from Pathogenic Microorganisms in the Food Supply" was published in the *Journal of Food Protection*. Dr. Morales recently presented "Salmonella Enteritidis in Shell Eggs" at the International Life Sciences Institute (ILSI) Risk Science Institute Workshop on Water- and Foodborne Pathogen Risk Assessment in Washington, D.C. She presented "Special Issues in Risk Assessment Modeling for Living Organisms as Exemplified by Microbes in the Food Chain" and "Overview of the Risk Assessment for Salmonella Enteritidis in Eggs and Egg Products" at the Annual Meeting of the Society for Risk Analysis in Phoenix, Arizona. Morales also gave a keynote presentation on "Data Needs for Risk Assessment" at the National Conference on Food Safety Research in Alexandria, Virginia. Morales was also the chair at the International Life Sciences Institute (ILSI) Working Group on Microbiological Risk Assessment for Foods at the ILSI Water - and Foodborne Pathogen Risk Assessment Review. She was recently appointed to the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) and is also a member of the U.S. Delegation to the Codex Committee on Food Hygiene (CCFH), Codex Alimentarius Commission.



## Uniting Tradition and Technology in Veterinary Medicine

# Countdown to SAVMA Symposium 2000

**Planning continues for the annual meeting of the Student American Veterinary Medical Association which will be hosted by students in the Virginia-Maryland Regional College of Veterinary Medicine March 15-18, 2000. An estimated 1400 veterinary students from around the nation are expected to attend.**

*The keynote speaker will be Dr. David G. Pugh, DVM, MS, DACT, DACVN, who is currently Director of Llama Research and assistant professor of large animal surgery and medicine at the Auburn University College of Veterinary Medicine. Pugh, a former VMRCVM faculty member, will address the value of a veterinarian to "improvise, adapt and overcome."*

*Progress has been made on raising the \$180,000 required to host the event. But \$115,000 more must be identified. What can you do to help? Cash donations are welcome, as is participation in one of two upcoming fund-raising events. The second annual "Cowpie Lotto" will be held on October 30, 1999. In February, we will present the SCAVMA auction. For more information about how you can help, contact fund-raising co-chairs Sharon Dietz (sdietz@vt.edu) or Anne Steinbach (asteinba@vt.edu)*



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