In this Issue

- Johne's Disease Breakthrough
- Joining Forces on Chronic Wasting Disease
- Collaborating to Beat Cancer
- Q&A: Minnesota Veterinary Diagnostic Laboratory
- Volunteers: A Labor of Love
- CVM-Industry Collaborations
- Educating Legislators About the CVM
- Como Zoo Partnership
Partnering for Greater Impact

We live in a time of ever-expanding challenges. Emerging diseases such as West Nile virus and Chronic Wasting Disease are placing greater demands on Minnesota’s state and local resources. Evolving technologies and new therapies require that our students, practicing veterinarians, and food animal producers be more knowledgeable. And the state and national economic environment demand that all organizations develop creative strategies to increase their effectiveness.

Two years ago, CVM faculty identified collaboration as a significant college value. Today, that value is enabling both the CVM and its partners to achieve results that otherwise would not be possible. This issue of Profiles illustrates the scope and impact of some of CVM’s collaborative programs:

• Working with the U.S. Department of Agriculture’s laboratory in Ames, Iowa, CVM faculty mapped the genome of the bacterium that causes Johne’s disease, one of the dairy industry’s most prevalent disorders. And we’re partnering with the Centers for Disease Control and Prevention to evaluate an avian-specific vaccine for West Nile virus, a deadly threat for valuable captive birds.

• We’re joining forces with Minnesota’s Department of Natural Resources and the Board of Animal Health on Chronic Wasting Disease surveillance and education programs. In another type of partnership, the College has provided veterinary services to St. Paul’s Como Zoo for more than 40 years.

• For many years, industrial partners have supported college research, education and graduate programs. The CVM ranks second among all U.S. veterinary medicine colleges in industry-funded research support.

• Community volunteers play an invaluable role at The Raptor Center and Veterinary Teaching Hospital, providing important services that otherwise might not be available.

• College faculty have established many collaborative relationships with other faculty throughout the University. In fact, the University is unique in having veterinary medicine, medicine, agricultural, public health, business, and law schools located in close proximity. The CVM faculty’s collaborative work includes initiatives with the University of Minnesota Cancer Center that advance the treatment of both humans and animals.

Collaboration provides an important model for the future. At the CVM, it’s already part of our culture.

Sincerely,

Jeffrey S. Klausner, DVM, MS
Dean, College of Veterinary Medicine
The battle against Johne’s disease, a serious profit-robbing ailment of dairy cattle, gained significant ground recently, when researchers at the CVM and the U.S. Department of Agriculture’s National Animal Disease Center in Ames, Iowa, sequenced the genome of the bacterium that causes it. The researchers, led by CVM faculty member Vivek Kapur, determined the genetic makeup of Mycobacterium paratuberculosis, which causes diarrhea, weight loss, and reduced milk production and carcass quality. While the cause has been recognized for more than 100 years, satisfactory Johne’s diagnosis, treatment and prevention methods are lacking. The USDA estimates that at least a quarter of all U.S. dairy herds are infected with Johne’s (pronounced YO-nes). There is no treatment or cure, and the disease is extremely difficult to eradicate.

The researchers’ breakthrough work opens the door to new approaches to detecting and helping control Johne’s. In fact, a new gene-based diagnostic tool already is being field tested. “Johnes is a horrible disease, largely because we lacked an understanding of the organism’s basic genetic makeup and the tools to differentiate the bacterium from other closely related species,” Kapur says. Results of the Johne’s disease sequencing analysis are available at http://pathogenomics.ahc.umn.edu.

A Tough Opponent
Mycobacterium paratuberculosis, the microorganism that causes Johne’s, is a formidable opponent. It lives in manure, so it can readily move through a herd, and from one herd to another. Animals don’t become ill for several years after becoming infected, so Johne’s can infect many animals before a producer even knows it’s present. The bacterium also grows slowly, so it can take months to confirm its presence using conventional laboratory culture methods.

A Valued Ally
From a microbe’s perspective, veterinary epidemiologist Scott Wells could be considered Public Enemy No. 1. Formerly a private practice veterinarian, Wells headed up the dairy cattle health monitoring program at the USDA’s Animal and Plant Health Inspection Service from 1992 to 1998. In 1999, he joined the CVM to head the College’s veterinary public health unit. Today, he’s leading initiatives to advance the understanding and control of cattle diseases.

A key focus is controlling Johne’s disease. Wells and Minnesota Board of Animal Health professionals partnered to develop a program that helps dairy producers control Johne’s in their herds. Participating producers receive a visit from a state or federal veterinarian, who assesses the herd’s susceptibility to Johne’s and recommends management changes —such as keeping calves from coming in contact with manure from adult animals—that reduce the risk of spreading the disease. Participants also can have up to 200 animals per year tested for Johne’s, with the Board of Animal Health covering the testing cost. So far, more than 500 Minnesota dairy farms have been through the risk assessment. *We’re making strides,* Associate Professor Scott Wells says.
When Minnesota confirmed its first case of Chronic Wasting Disease in a farmed elk last August, the College of Veterinary Medicine swung into high gear. Working closely with state and national agencies, other University entities, and veterinarians and meat processors, the College hosted the state’s first professional CWD training seminar, provided students to help collect tissue samples, and tested more than 5,000 wild deer brain samples for CWD.

Chronic Wasting Disease is a fatal infectious disease that affects deer and elk. So far, no cases have been confirmed in Minnesota’s wild deer population. Although there is no evidence that CWD can be transmitted to humans, the similarity to mad cow disease is a matter of concern to hundreds of thousands of deer hunters and to the state’s tourism industry.

“The veterinary oath goes beyond promoting animal health: We also promise to support public health,” notes Will Hueston, director of the College’s Center for Animal Health and Food Safety.

The College’s Veterinary Diagnostic Laboratory (VDL) is playing a key role in CWD surveillance – that is, determining whether a disease is present. Last June, the VDL agreed to test samples from wild deer harvested by the Department of Natural Resources as part of the agency’s ongoing epidemiological survey efforts. Then, in August, a farmed elk near Aitkin (MN) was confirmed to have the state’s first case of Chronic Wasting Disease. At the same time, confirmed cases were on the rise in Wisconsin.

Faced with hunter concerns, the DNR asked if the VDL could perform tests on an additional 5,000 deer shot during Minnesota’s firearms deer-hunting season. With the season opener occurring Nov. 9, the lab had less than two months to equip and staff a CWD lab.

“Of course, our answer was ‘Yes,’” says VDL director Jim Collins. “But it took a mammoth effort, plus a lot of sleepless nights, to be ready in time.”

CWD is caused by a type of protein called a prion, which is almost impossible to kill. To avoid contaminating other areas, the VDL had to create and equip a dedicated CWD lab. Specialized equipment, including a tissue processor available only in Japan, had to be obtained. The lab also needed CWD testing accreditation from the U.S. Department of Agriculture, a rigorous process that includes an onsite visit, staff training and running blind tests to determine staff proficiencies. Collins had to find and train nine contract scientists to supplement his own staff.

At the same time, the Center for Animal Health and Food Safety (CAHFS) helped spearhead a just-in-time training session on CWD. The daylong session educated veterinarians, their staffs and meat processors about CWD, similar diseases in humans, and how to handle and dispose of deer carcasses to avoid contamination. Session organizers

“Our CWD response helped establish a cross-organization model we can apply to issues from infectious diseases to agroterrorism threats.”
—Will Hueston
CAHFS director
and presenters included representatives from the CVM; the DNR; the University’s Medical School and Department of Food Science and Nutrition; Minnesota Extension Service; the Minnesota Board of Animal Health; the state’s Department of Agriculture; and the USDA Animal and Plant Health Inspection Service.

Practicing veterinarians offered to act as collection sites for hunter-harvested deer. CVM students also helped in the effort, with several dozen working with DNR biologists in the field to collect tissue samples during deer hunting season.

The CVM received financial assistance from a number of sources. The USDA laboratory in Ames, Iowa, supplied more than $120,000 in laboratory equipment, and the state of Minnesota provided $92,000 from its Rapid Response Fund, which supports work on emerging agriculture-related problems. These organizations also provided support:

- Gander Mountain $50,000
- Red Wing Shoe Co. $10,000
- Wildlife Research Center $10,000
- Robinson Laboratories $2,500
- Cabela’s $5,000
- Polaris Foundation $5,000
- Sports Warehouse Inc. $5,000
- Leech Lake Distributors/Reed’s $5,000

“Emerging infectious diseases such as CWD aren’t going away,” says Jeffrey Klausner, CVM dean. “In fact, we’re seeing a re-emergence of some existing diseases such as tuberculosis, and the rise of new infectious diseases such as West Nile virus.

“The College’s collaborative efforts are absolutely essential to safeguard Minnesota’s economy and health, protect our natural-resource treasures, and ensure an effective response.”

CVM Students Help DNR

Minnesota deer hunters weren’t the only people who took to the field in November: About 34 University of Minnesota veterinary students went with them. Working side by side with the Minnesota Department of Natural Resources, the students helped staff 11 DNR locations to extract thousands of brain tissue samples from hunter-harvested deer to be tested for Chronic Wasting Disease.

The students’ involvement marked the first large-scale deployment of the CVM’s Veterinary Rapid Response Team. The program, the first of its kind in the nation, recognizes that emerging new animal diseases, bioterrorism concerns, and food safety issues require government agencies to mount a swift response. Under the team program, veterinary students volunteer to work in a type of SWAT team, providing trained resources when and where help is needed most.

The result: The agencies obtain additional resources, and the students gain unique educational experiences in the arena of public health.

About 150 students expressed interest in 34 CWD sampling positions. To prepare, the students participated in an eight-hour CWD lecture and a hands-on laboratory training session. They also received basic news media training, reflecting the CVM’s effort to provide students with innovative training that can help them in their careers.

Mark Lenarz, a DNR group leader at an extraction station in Grand Rapids, said of the three CVM students he worked with: “Despite long hours, they displayed an infectious enthusiasm to get the job done and do it well. I was particularly impressed by their willingness to pitch in on all aspects of the job, whether dissecting brain stems, hauling garbage or sweeping the floor.”

Jamie Boulter, a CVM junior who plans to specialize in equine medicine, called the work “an incredibly positive experience.” Working an hour north of Minneapolis, she, two other students and a DNR researcher extracted more than 400 brain tissue samples in the first 3.5 days. “Veterinarians do a lot of things that touch people’s lives,” Boulter says. “This gave me the chance to do something helpful for the state I otherwise might not ever get to do."

Senior veterinary student Sven Kohlmeyer securely tapes a tissue sample as part of his work for the CVM Veterinary Rapid Response Team.
It’s called comparative medicine—the concept that research related to animals can help improve both animal and human health. It’s a concept realized every day through CVM faculty Cathy Carlson and Elizabeth McNiel’s work with the University of Minnesota Cancer Center.

The Center is a National Institutes of Health (NIH) supported Comprehensive Cancer Center, with a component of its mission that includes establishing core service functions to enhance cancer research and cancer patient care. Its members comprise faculty from across the University.

Last summer, Carlson, associate professor in the Veterinary Diagnostic Medicine Department, spearheaded the creation of a histopathology core service for the Center. (Histopathology evaluates tissue sections to identify the microscopic structure, composition, and functional manifestations of a particular disease.) The service provides veterinary pathology expertise to Cancer Center members who use animal models in their research. Carlson heads the CVM-based service, with support from Nichole Kirchhof, director of the Veterinary Pathology Core of Experimental Surgery, and three additional board-certified pathologists: David Hayden and Tim O’Brien of the CVM, and Roland Gunther, clinical specialist in the Academic Health Center’s Research Animal Resources unit.

“The emphasis that veterinary training places on the connections between animal and human medicine makes the CVM an ideal location for this core...
Comparative oncology involves the study of human cancer by comparing its similarities with animal cancer. It is Elizabeth McNiel’s goal to build the University’s comparative oncology program into one of the nation’s finest. Given that she joined the College of Veterinary Medicine less than a year ago, she’s off to a strong start. McNiel, assistant professor in the Small Animal Clinical Sciences Department, first became interested in cancer research as an intern, when she diagnosed and treated cancer patients at the Angell Memorial Animal Hospital in Boston. She was fascinated by cancer from this perspective: Most disease conditions result from the failure of cells to function, while cancer results from cells with enhanced abilities to grow and survive.

At the time that McNiel applied for her oncology residency, there were only five positions available in the United States. She was selected for oncology residency training at Colorado State University, a world leader in veterinary oncology. McNiel is particularly interested in translational cancer research, which means turning laboratory research findings into concepts applicable to animal and human cancer patients. Her desire to join the CVM was fueled by the University’s strong Academic Health Center and its multidisciplinary approach to medicine.

“Through our support, we help strengthen the Cancer Center’s research mission,” Carlson notes. “Through our support, we help strengthen the Cancer Center’s research mission.”

McNiel conducts research with animals that already have cancer. Naturally occurring animal cancer models have significant advantages over experimental mouse models. One big difference is that naturally occurring animal cancers often share more similarities with their human counterparts than do experimentally induced cancers. For example, the natural course of malignant bone cancer in dogs is very similar to bone cancer in children.

The shorter lifespan of animals, compared to humans, also facilitates clinical studies. Cancer is relatively frequent in animals and the Veterinary Teaching Hospital has the largest patient base of any U.S. veterinary college, enabling it to recruit large numbers of animals for clinical trials.

McNiel is partnering with Stephen Hecht, professor at the Cancer Center, to investigate the effects of secondhand cigarette smoke, called Environmental Tobacco Smoke (ETS). Chemicals in cigarette smoke can be detected in urine following ETS exposure. These “biomarkers” are being developed to detect significant exposure in people and have future applications in dogs.

Additionally, McNiel is working with CVM associate professor Jim Mickelson on a $150,000 NIH grant to investigate the genetic basis for hereditary stomach cancer in Chow Chows. She also is collaborating with Animal Science faculty member Abel Ponce de Leon and Biochemistry faculty member Eric Hendrickson on an NIH-funded project to investigate the cause of cancer in cats and to explore feline cancers associated with vaccines.

Through such partnerships, CVM faculty continue to work to unlock the secrets of cancer—both in animals and in humans. ☀
Performing more than 1.3 million tests a year, the University of Minnesota Veterinary Diagnostic Laboratory is one of the busiest in the nation—and getting busier.

Q: Who are the VDL’s customers?

A: A broad array—swine, poultry, dairy, industry; companion animal owners; the zoo; and the Minnesota Department of Natural Resources. More than a quarter are from other states and countries. That’s because we provide services and have capabilities other labs don’t, including certain molecular tests and ways of analyzing information.

Q: What role does the lab play in protecting Minnesota’s animal and human health?

A: We’re one of the nation’s top veterinary labs in terms of identifying emerging diseases, such as porcine reproductive and respiratory syndrome (PRRS) and avian pneumovirus. We also introduce new diagnostic methods to detect such diseases faster and at lower cost.

Q: What are some of the lab’s recent challenges and accomplishments?

A: A big one has been gearing up for Chronic Wasting Disease testing (see page 4). Another has been providing same-day service for testing boar semen for PRRS virus at the swine industry’s request.

Our new online electronic data submission system also is a major advance. Most laboratories’ web-based systems are one-way: They only report customer results. With our system, veterinarians can input data at their clinic and ship test requests to us electronically. This makes processing samples more efficient and helps us analyze submissions for trends over time.

Q: What’s on the horizon?

A: We’ll be installing a $1.2 million chemical digester this summer that will allow us to dispose of animal waste on site, so potential infectious agents can’t escape the laboratory. Fewer than six U.S. universities have such a system. West Nile virus will bring new demands this year, with the addition of all sample testing that the Minnesota Department of Health did last year.

Homeland security issues are also big. We’re working to become part of the National Animal Health Laboratory Network for emerging diseases and bioterrorism, which will improve connections among veterinary diagnostic laboratories. The goal is to help ensure that the United States has the necessary testing capacity, coordination, and preparedness to combat a foreign animal disease that might be accidentally or intentionally introduced.

Also, the University has requested $1.5 million from the Minnesota Legislature to renovate laboratory space that hasn’t been updated since it was built in 1959. This will let us do more sophisticated testing, provide faster testing at lower cost, and better serve our growing caseload, which has doubled in the past 10 years.
A labor of love

It started in the late 1970s, when interested citizens began volunteering to care for injured birds of prey at The Raptor Center. Today, more than 300 volunteers work in nearly every area of TRC’s operation—from preparing food to helping injured birds fly again. In 2002, the volunteers recorded 19,835 hours. That is the equivalent of nearly 10 full-time employees—a significant impact in an organization with a 20-person staff.

More recently, the Veterinary Teaching Hospital launched its own volunteer program. Initially, two VTH supporters served as “animal concierges,” greeting incoming clients, escorting them around the VTH and answering questions. Today, the VTH has 10 volunteers working as animal concierges, pet rangers (walking patient dogs, providing TLC to animals in the small animal wards), and performing administrative/clerical tasks.

“Volunteers involve the community in our mission and allow us to provide a level of service beyond what we can do with paid staff,” says Audrey Boyle, who manages the VTH volunteer program.

“The clients who volunteer want to give back to the VTH for the great care their own animals receive. The student volunteers want to broaden their experience with animals, and our other volunteers don’t have as much contact with animals as they would like. Coming to the VTH definitely provides that contact!” Boyle says.

Volunteering is far from a casual commitment. At TRC, volunteers are required to attend orientation and training sessions, commit to a weekly four-hour shift for one year, and have their own health insurance. VTH volunteers who work directly with patients must take a three-hour animal handling class, make a six-month commitment, and work a minimum of six hours per month.

According to the Volunteer Resource Center of the Twin Cities, 2.3 million Minnesota adults are volunteers, serving an average of 3.8 hours per week for an estimated annual dollar value of $6.7 billion. The CVM gains immeasurable benefits from its volunteers’ efforts.

“Our volunteers do everything from caring for convalescent birds to presenting educational programs and helping out at special events,” says Patrick Redig, professor and director of The Raptor Center. “Without them, we simply could not accomplish everything we do.”

For more information about volunteering –

• At the VTH, call Audrey Boyle at 612-625-3770.
• At The Raptor Center, call Becky Havlicek at 612-624-3928.

Marcia Wolkerstorfer
Clinic Volunteer and Crew Leader, The Raptor Center

In 1986, Marcia Wolkerstorfer of Hugo (MN) began volunteering at The Raptor Center. Except for an occasional sick day, she hasn’t missed a Wednesday since. TRC’s records show that she has logged more than 4,000 hours as a clinic volunteer. Her duties: feeding, medicating, “grabbing,” and holding raptors for exams, and training others in this specialized skill. As a crew leader, Wolkerstorfer also trains and supervises a team of six fellow volunteers. All give her glowing reviews, saying that Wolkerstorfer strives for excellence and brings out their strengths.

“Marcia can sweet-talk just about any eagle into taking its medication,” says Lori Arent, TRC clinic manager. “Her patience, knowledge of birds, and wit work together to lead a close-knit crew of volunteers.”

After 16 years of nursing, hand-feeding, wrestling with, and calming injured wild birds, Wolkerstorfer’s bond with raptors, especially eagles, is passionate and spiritual. “Let me put it this way: You don’t have to be the same species to feel connected,” she says.
To the untrained eye, it’s a barn full of goats. To those in the know, it’s just one example of how the College of Veterinary Medicine and industries partner to create greater benefits than either could achieve alone.

The goats are among 755 housed on the St. Paul campus and at the Rosemount Research and Outreach Center as part of a collaboration with R&D Systems, Inc., a Minneapolis biotechnology firm. The arrangement provides R&D Systems with a convenient location and top-notch care for the goats, which provide antibodies for the biomedical testing kits the company manufactures. The CVM has gained three state-of-the-art animal housing facilities, help in funding two faculty positions, and a large goat population for research and education.

“With this number of goats, students can learn what’s normal in ruminants,” says project director Cynthia Wolf, a nationally recognized small ruminant veterinarian. “Some become ill, so the students get to address what’s wrong with them, too.”

Companion animals and their people benefit from another collaboration. Five years ago, Ralston Purina (now Nestlé Purina PetCare Co.) funded a half-time, CVM small-animal nutritionist position. Julie Churchill, who holds that position, emphasizes the roles nutrition can play in promoting animal wellness as well as the nutritional therapy/management of disease.

With more than 5,000 types of pet food on the market, as well as prescription and home-cooked diets, Churchill is an invaluable resource for veterinary students, technicians, interns, residents, clinicians, referring veterinarians, and clients. She also runs a nutrition support service in the Veterinary Teaching Hospital.

Churchill says Nestlé Purina has consistently demonstrated its commitment to pets and the veterinary profession by supporting nutrition education and research. “There aren’t very many veterinary colleges that have a dedicated nutrition position,” she says. “A dedicated nutritionist and one of the largest animal caseloads in the world make the CVM an ideal site for clinical nutrition research.”

Poultry producers also actively collaborate with the College. The Minnesota Turkey Research & Promotion Council recently helped fund a part-time faculty position in poultry pathology. Last August, nationally recognized poultry pathologist Andre Ziegler joined the CVM.

The producers are getting a substantial return on their investment. “Already during his short appointment, Andre has made key discoveries related to poultry disease in Minnesota,” notes Jim Collins, director of the Veterinary Diagnostic Laboratory.

Faculty member Julie Churchill and junior veterinary student Rebecca Sluis review a body condition chart during the small animal nutrition lab. Nestlé Purina PetCare funds Julie’s work.
New VTH Medical Director

Roberto E. Novo, assistant clinical specialist in the Small Animal Clinical Sciences Department, has been named medical director for the Veterinary Teaching Hospital. Novo, a board-certified veterinary surgeon, has been with the College since 1998.

Meet Our New Faculty and Staff...

New Allen D. Leman Chair Named

Peter Davies, BVS, PhD, has been named to the Allen D. Leman Chair in Swine Health and Productivity. The native Australian will collaborate with and contribute to Minnesota’s swine industry and add value to the College’s Center for Animal Health and Food Safety.

Davies will join the CVM this August from his position as Chair in Public Health and Food Safety at the Institute of Veterinary, Animal and Biomedical Sciences at Massey University, New Zealand. He previously worked as a veterinary practitioner in Australia and the United Kingdom, an agricultural livestock and public health advisor in Brazil, and a veterinary research officer and a senior veterinary officer in Australia, specializing in swine.

Veterinarian of the Year

Robert Hardy, a professor in the Small Animal Clinical Sciences Department at the CVM, has received this year’s distinguished Veterinarian of the Year Award from the Minnesota Veterinary Medical Association (MVMA). The award recognizes veterinarians for outstanding service to the profession and community.

Hardy is a diplomate of the American College of Veterinary Internal Medicine in internal medicine and heads the Small Animal Medicine Section in the Veterinary Teaching Hospital. He has been honored many times over the years for his service and teaching contributions.

His research has focused on diseases of the liver and pancreas. He is nationally known for his work on diabetes mellitus and acute pancreatitis. Over the course of his career, Hardy has served on many committees; published 64 referred journal articles; and given nearly 200 continuing education presentations. Hardy has received the Norden Distinguished Teaching Award four times.
Legislators Attend Vet School

Everyone knows that a veterinary college educates students and cares for sick animals. But what else does it do? How, exactly, does a veterinary college benefit its state, animals, and residents?

The CVM took a creative approach to answering that question recently, when it held its first-ever Vet School for VIPs. The interactive, half-day event attracted 14 Minnesota legislators, aides and analysts, many of whom sit on agriculture and higher education committees.

Participants listened to lectures on critical issues ranging from new infectious diseases to breakthrough cancer pain research in dogs that ultimately will help human patients. They went into the lab to view Web-based teaching techniques developed at the College, and to see abnormalities in a brain tissue sample from an eagle infected with West Nile virus. They participated in clinical mini-rotations with faculty working in areas that included intensive care, cardiology, food animal medicine, and pet behavior problems. Most important, they came away with a better understanding of what a critical asset the CVM is to Minnesota, its animals and its people.

“The event provided so much more than I expected—it was terrific,” said Rep. Mary Ellen Otremba, the senior Democrat on the Minnesota House of Representatives Agricultural Policy Committee. “I didn’t expect there to be so much hands-on experience,” she noted. “I didn’t fully realize the depth and breadth of the research the College does. Meeting the faculty and staff also was a special part for me. I already have a big file of what I learned. Now, I feel like I know the people and can call on them any time I need some background or expertise.”

The CVM plans to conduct additional VIP programs for other key stakeholders. “The state faces major state budget problems, while at the same time the need for a strong veterinary public health infrastructure is greater than ever,” CVM Dean Jeffrey Klausner noted. “It’s more important than ever that decision makers understand the significance of the College’s contributions.”

Raptor Center to Test WNV Vaccine

The Raptor Center is collaborating with the Centers for Disease Control and Prevention (CDC), and veterinary colleges at Louisiana State University, the University of Georgia, and the University of Tennessee to develop and test an avian-specific vaccine for West Nile virus.

This spring, TRC staff will vaccinate 30 red-tailed hawks with a new commercially developed killed vaccine and monitor the birds’ antibody response. The next step will be to test a DNA plasmid vaccine, developed by the CDC, on a wider range of avian species. While killed vaccines can be produced and brought to market more quickly, they require multiple injections and periodic booster shots. DNA plasmid vaccines, a new technology, are theoretically more effective and need to be administered only once or twice.

Almost 140 bird species, from songbirds to raptors, have died of the virus since 1999. A vaccine would help protect companion birds and bird species in zoos from West Nile virus, which is spread through the bites of infected mosquitoes.

The Raptor Center has received funding support for its vaccine work from individual and foundation donors and the North American Falconer’s Association. Additional funds will be needed to continue the work.

To donate to this effort, contact Michelle Kalantari at 612-624-6146 or kalan009@umn.edu.
VTH Opens Satellite Service

The College has launched its first specialty services satellite clinic, serving the Apple Valley area. Based at the South Metro Animal Emergency Care Center in Apple Valley, the innovative clinic gives both veterinarians who refer patients to the CVM’s Veterinary Teaching Hospital and area residents more convenient access to veterinary specialty care.

Greg Anderson, a board-certified small animal surgeon, provides soft-tissue and orthopedic surgical consultation services at the clinic every Tuesday. Ultimately, the College plans to expand the services at Apple Valley, and potentially establish clinics in other metro areas. The VTH provides advanced veterinary services for almost 40,000 patients annually. More than half the hospital’s admissions are referrals from private-practice veterinarians.

2003 Graduation

Nancy Jaax, adjunct faculty, and Jerry Jaax, associate vice provost, both at Kansas State University, will deliver the commencement address at this year’s graduation ceremony on Saturday, May 10, at 7 p.m. at the Northrup Auditorium. The Jaaxes are prominent figures in the book The Hot Zone, which chronicles scientists’ containment efforts when Ebola Fever, an African virus with a 90 percent kill rate, broke out in a suburban Washington, D.C., research facility in the late 1980s.

The Jaaxes also will present a seminar at the College on Friday, May 9, at 3 p.m., with a reception to follow. This is the first time non-University speakers have been invited to deliver the commencement address.

VTH Volunteers Make a Difference

Volunteer Luce Pallansch comforts Sadi-Lou, a Rottweiler-German shepherd mix awaiting the results of an X-ray at the Veterinary Teaching Hospital. One of the VTH’s first volunteers, Pallansch drives an hour each way to volunteer one day a week. In addition to providing patients with a little extra TLC, Pallansch does everything from scooping poop to talking to clients. “I get more than I give,” she says. “These animals are making me a kinder, more humane person.” For more information about CVM volunteer programs, see page 9.

Ballard Student

Michelle Rider has been selected as the College’s new Ballard Student representative by Morris Animal Foundation. Ballard Students work to educate students and faculty about the Foundation’s vital role in advancing veterinary medicine. The Foundation is a 55-year-old non-profit organization dedicated to ensuring a healthier tomorrow for companion animals and wildlife. It has funded 1,050 humane animal health studies, with support exceeding $29 million. Rider is one of 16 new veterinary representatives selected nationwide. They join 14 other students currently serving their second year.
A Win-Win Gift

Donate money to an important cause now, or wait for an uncertain future? For Billie Jo Jones, the choice was easy. After watching a nursing home swallow her parents’ savings, Jones took two steps. First, she bought long-term care insurance to avoid being in her parents’ situation. Second, she invested her money in a vehicle that would provide her with income for life while supporting a cause dear to her—animal health.

Jones, of Holmes City (MN), created two $25,000 charitable gift annuities—one for the College of Veterinary Medicine, and the other for The Raptor Center. The annuities will help fund key veterinary programs in the future while providing Jones an 8.5 percent annual return during her life. “It’s truly a win-win gift,” says Kathleen McLaughlin, CVM development director.

Jones decided to help fund the CVM’s mission in gratitude for the expert care her dog Suzy received from faculty member Jody Lulich. Her decision to support The Raptor Center came from happy memories of times spent watching birds with her father. Jones also has included support for the CVM and The Raptor Center in her will.

“If you don’t do something to make some part of the world a little better, what have you accomplished?” she says. “It just makes you feel better.”

To learn more about CVM annuity programs, contact Kathleen McLaughlin at 612-624-1247 or at mclau020@umn.edu.

Alumni’s Voice in the CVM

Would you like to have a voice in the College’s future? Support veterinary research? Help young people pursue veterinary careers?

If you’re a CVM alumnus, you belong to an organization that does all this—the College of Veterinary Medicine Alumni and Friends Society. Everyone who receives a DVM or graduate degree through the CVM automatically becomes a member. To learn more, contact Kathleen McLaughlin at 612-624-1247 or at mclau020@umn.edu.

Partners in Research

With the encouragement of CVM faculty, animal-based businesses are putting their money where their future is. They’re providing funds to help establish graduate fellowships in the College of Veterinary Medicine.

Three years ago, Veterinary Diagnostic Laboratory Director Jim Collins worked with PIC USA, the world’s largest swine genetic improvement firm, to establish a fellowship that funds graduate studies and a residency in swine diagnostic pathology. Marie Gramer, who is working to advance molecular approaches to rapid detection of swine influenza, holds that position.

Encouraged by that success, faculty Carlos Pijoan and Bob Morrison are now soliciting support for a similar fellowship in the Swine Disease Eradication Center. Their goal is to create a $500,000 endowment fund that will yield $25,000 per year. Matching funds from the University’s 21st Century Graduate Fellowship Endowment would result in a $50,000 fellowship.

“The basic idea is to generate future researchers in swine production and medicine,” Pijoan says. For more information about establishing graduate fellowships, contact Kathleen McLaughlin at 612-624-1247 or at mclau020@umn.edu.

In Memoriam

Melanie Freeman (DVM ’89) died in December of a brain hemorrhage. Founder of Veterinary Specialty Consultants, an Apple Valley (MN) internal medicine referral service, Freeman was known for her compassion and expertise in working with animals with complex medical conditions. She was a Diplomate of the American College of Veterinary Internal Medicine.
Taking Continuing Ed to Its Customers

It’s not always easy to take time to attend continuing education programs. So CVM Outreach continuously seeks ways to improve access for practicing veterinarians – by taking its continuing education programs out to the community and, increasingly, by using new online teaching tools.

Two years ago, in partnership with the Rochester Continuing Education and Professional Development Department and the Southeastern Minnesota Veterinary Medicine Association, CVM began offering programs for veterinarians in the Rochester area. Every other month from September through May, College faculty go to Rochester to give evening presentations on a wide variety of topics that include dentistry, dairy economics, blood chemistry, anesthesia, reading x-rays, oxyglobin and the use of Chinese herbs.

CVM Outreach also has begun leveraging the convenience of the Web. Last summer, CVM mounted its first-ever educational Webcast, on West Nile virus. Hundreds of Minnesotans connected to one of 35 broadcast sites to learn about the disease and get an up-to-the-minute report on outbreaks. The Webcast brought together presenters from the College’s Center for Animal Health and Food Safety and the Medical School, as well as from the Minnesota Department of Health, Department of Natural Resources, Board of Animal Health and Metro Mosquito Control District – many who participated from their office or home.

This spring, CVM is offering an online program on Emerging and Exotic Diseases of Animals, coordinated by CVM dairy faculty member Scott Wells. Offered in cooperation with the Veterinary Information Network, a professional online service, the program enables participants to independently choose online case modules ranging from ruminant neurologic diseases and swine vesicular diseases, to bioterrorism/agroterrorism. Participants work at their own pace, take self-tests to monitor learning and access the programs 24/7 from any Internet-connected PC. They also can take part in interactive online discussions with second-year DVM students and other practitioners taking the course.

“Helping advance the knowledge of Minnesota’s veterinarians is a critical mission for the College,” says Janice Swanson, CVM outreach director. “With these new tools, we can enhance accessibility, reach more veterinarians, and quickly provide information on critical issues.”

For more information about CVM Veterinary Outreach Programs, call 612-624-3434 or 800-380-8636, or send an e-mail to vop@umn.edu.
A Part of Como Zoo

Ralph Farnsworth had just arrived at the College of Veterinary Medicine when he was approached about providing veterinary care at the Como Zoo. Today, 37 years later, he still divides his time between bovine medicine and caring for the zoo’s exotic animal population.

The zoo, owned and operated by the City of St. Paul, gets top-notch onsite veterinary support without the cost of having a veterinarian on staff. (The CVM also provides consultations to the Minnesota Zoo staff veterinarians.)

For the College, the Como relationship creates unique education and research opportunities. Micky Trent, a CVM faculty member who specializes in large-animal surgery, now teams with Farnsworth to care for Como animals as well as to expand teaching programs. A “Selected Topics in Zoo Medicine” course launched this semester had more interested students than it could accept.

“It’s just a wonderful relationship – the city, the zoo, and its animals are really fortunate,” says Como Zoo Director Victor Camp. “We have unlimited veterinary expertise we can tap. Plus, the College is able to offer students more exposure to exotic animal medicine. It’s a critical part of the partnership.”

Como has about 100 mammals, ranging from one-pound Emperor tamarins (a brown primate with a white Fu Manchu mustache) to 18-foot-tall, one-ton giraffes. There are an additional 400 reptiles and birds. Farnsworth has helped the zoo design and install a special chute to immobilize the giraffes for evaluation and treatment. He has traveled in the cargo hold of a jet with a 540-pound gorilla being shipped to New Orleans.

He and/or Trent make rounds every Monday. On one recent Monday, Trent and Farnsworth observed the progress of a female wolf that had been limping, consulted on potential nutritional changes for a primate, discussed therapies for an arthritic 1,200-pound Kodiak bear and planned a checkup for an arriving cougar.

“The zookeepers are our partners,” says Farnsworth. “Zoo animals are stoic; they don’t show symptoms until they’re very sick. So we look to the zookeeper to tell us about the animals’ eating patterns, behavior, any changes that they see.”

Profiles

College of Veterinary Medicine
University of Minnesota
1365 Gortner Avenue
St. Paul, Minnesota 55108

Address Service Requested