In this Issue of Profiles

New approaches to teaching and learning—inside and outside the classroom

• The Raptor Center annual report
• Research, education, and advancement news
• Upcoming events
ow that winter’s cold has passed and the warmth of spring is here, the College of Veterinary Medicine is proud to have graduated another accomplished class of new veterinarians. I am equally proud and excited to share with you this issue of *Pro les*, which highlights our achievements over the past several months. In reading the articles, I was reminded of how dedicated our students, faculty, and staff are to continuous improvement in our educational programs.

This issue highlights some of our innovative approaches to education, teaching, and learning inside and outside the classroom. We explore the GOALe (Gopher Orientation and Leadership Experience) course, which builds on those traits selected for in the behavioral interviews used in our admissions process and promotes teamwork and self-awareness among our students, all before they enter a classroom here at the CVM. Then we go behind the scenes in the “new classroom,” exploring some of the ways we make learning fun. You will also discover how students in the Student Initiative for Reservation Veterinary Services learn in a service-based approach and how other students participate in statewide surveillance for chronic wasting disease and bovine tuberculosis as part of a state/agency partnership.

Financial concerns continue to have a large impact on the College, as state support for the University has declined significantly in the last two years. As the University faces a total state budget reduction of $132 million, all University colleges and schools are challenged as we navigate the tumultuous financial climate. Despite these challenges, the CVM has plenty to celebrate, and we must view these times as an opportunity to find creative ways to fulfill our mission.

Implementing recently awarded grants and agreements, encouraging ongoing donor support, and continuing to explore partnerships and synergies will be critical to our success. Several examples of these initiatives are explored in this issue, including the new Tata Chair in Veterinary Orthopedic Surgery and the $185 million United States Agency for International Development (USAID) cooperative agreement, one of the largest grants ever awarded to the University of Minnesota.

Communicating CVM news, information, and achievements is essential, and doing so with minimal cost is more important than ever. The College is now utilizing social media (Facebook and Twitter) as an economical medium to give our alumni, supporters, and stakeholders immediate and interactive CVM news and information. This, coupled with our redesigned Web site (www.cvm.umn.edu), provides unprecedented access to the CVM, ranging from admissions information to research news to facts about how to support the College.

The CVM is going green by implementing a cost-cutting recycling program. In addition, with rising print costs, one way we can save money is by distributing fewer copies of *Pro les* and providing a PDF version on the CVM Web site for individuals to download. As we explore this option, we have provided a survey on the CVM home page, www.cvm.umn.edu, to ask how we can best move forward with this savings goal for *Pro les* while preserving our connection with you. Please take a minute to complete it, as it is important to us to learn what you think.

And remember to mark your calendar for Homecoming 2010, which will include our annual alumni reunion on October 1. I look forward to seeing you there!

With warm regards,

Trevor Ames, D.V.M., M.S., Diplomate ACVIM
Dean
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Fourth-year student Sean Teichner examines a patient under the supervision of Kelly Hall, assistant clinical professor. Hall teaches “How to Think Like a Doctor,” one of five Professional Development Series courses offered by the College (see page 8). Photo by Sue Kirchoff
Learning to work together through GOALe

Before they even walk into a classroom, veterinary students spend two days with each other, learning about themselves at the Gopher Orientation and Leadership Experience, or GOALe. This experiential, overnight learning retreat for incoming veterinary students grew out of a program started at Washington State University about a decade ago to address issues of student morale. Held at Camp St. Croix, just south of Hudson, Wisconsin, GOALe is designed to develop leadership, communication, and collaboration skills with a focus on the four cornerstones of emotional intelligence: self awareness, self management, social awareness, and relationship management.

Now in the third full year of its current format, the GOALe program was developed by four CVM faculty members: Micky Trent, associate professor, Veterinary Population Medicine Department; Julie Churchill, assistant clinical professor, Veterinary Clinical Sciences Department; and Laura Molgaard, associate dean for academic and student affairs. Faculty and student coordinators running GOALe have received training through the American Veterinary Medical Association’s Veterinary Leadership Experience.

Once first-year students arrive at Camp St. Croix, they are divided into groups of about 10 students each. Two upper-level students and two faculty members serve as mentors to help new students learn about themselves, their colleagues, the veterinary program, and the veterinary profession.

Some activities, such as the Myers-Briggs personality test, are focused on the individual, while others engage the group. In one group activity, students are tasked with lowering a “helium stick” to the ground as a group while balancing it on their index fingers without breaking contact with the stick.

“Everyone is an equal contributor,” says Lindsey Hornickel, class of 2012 and a GOALe student coordinator. “There are a lot of people with strong ideas and strong leadership skills and potential, but there is no right way to lower the stick to the ground.” Other team activities include moving from one end of a log to the other, passing other teammates without falling off, or walking through a rope web without touching it.

One might wonder what these activities have to do with veterinary school or veterinary practice, but the applications are clear. For instance, while walking through the web, a student might be tempted to hide a small transgression.

“If they are tempted to hide the fact that they touched the rope, what happens when they accidentally break sterility in surgery?” asks Trent.

After a team-building activity, students discuss what they might have done better or more efficiently as a group, a learning tool that could prove invaluable during the rigors of veterinary school.

“There is a movement away from the negative aspects of competition toward collaboration,” Hornickel says. However, to arrive at that spot, many hard-charging students, who competed for more than a decade for a prized slot in vet school, are faced with a “paradigm shift,” she adds.

The program helps students understand that learning and skill development are greatest when one steps out of his or her comfort zone and is challenged. On the other hand, learning decreases when people are pushed so far that they feel physically or emotionally unsafe. For that reason, students who feel unsafe may opt out of any GOALe activity without penalty.

Once back on campus, the groups meet monthly with the same two faculty members that mentored their team. During these meetings, they engage in more learning activities. For instance, in one paper activity, students imagine that they are stranded in the north woods after their bus breaks down during a blinding snowstorm. They must rank the importance of possible actions for survival as individuals and then again as a group. A highly functioning group will weigh the values of each option, resulting in a group score that is higher than any individual score.

Working together in a style of collaborative leadership—not competition—is a strong emphasis at the College.
Things have changed. Vet school is no longer the same-old same old. Teaching styles and techniques have changed. Students have changed.

“The traditional paradigm of the instructor being the sole source of information and pouring that information into a single vessel, the student, is antiquated,” says Tom Molitor, professor and chair, Veterinary Population Medicine Department. For example, today’s students are accustomed to finding whatever information they seek almost instantaneously with a sweep of their finger across their iPhone touchpad or by hitting a key on their Blackberry.

Changes are also afoot at the Veterinary Medicine (CVM).

“There is a movement in teaching to get students more actively involved in the learning process,” says Molitor. “Studies have shown that students learn and retain information better if they are engaged in an active manner.”

In 2006, Molitor and others at the College set out to develop, evaluate, and implement unique teaching techniques in the classroom. Over the past four years, this core group of faculty has been meeting with other CVM faculty each Friday at noon for either a formal presentation or an informal conversation on innovative teaching methods. Their efforts have paid off.

Besides Molitor, this core group of faculty includes Deb Wingert, director of educational development; Laura Molgaard, associate dean of Academic Affairs; Robert Washabau, professor and chair of the Veterinary Clinical Sciences Department; and Al Beitz, professor and interim chair of the Veterinary and Biomedical Sciences Department.

Grassroots movement

A prime example of this core group’s work and the brainchild of Beitz involves the use of i-clickers in the classroom. This commercially available wireless product consists of a plug-in computer device and an i-clicker for each student. The gadgets function just the way the audience clickers do on the popular “Who Wants to be a Millionaire” television program. But instead of a contestant using the “ask the audience” lifeline to solicit a consensus answer, the instructor presents a question with multiple choice answers, then asks the students which one they think is correct.

After attending a national neuroscience meeting in November 2008 where i-clickers were discussed, Beitz returned to the College and presented the idea to the innovative teaching group in an informal conversation. By that winter, when the New Year’s issue of the journal Science ran an article on i-clickers, Beitz was using them in his classroom, followed shortly by David R. Brown, professor of pharmacology, then Molitor.

Student Kara Carmody responds to questions via i-clicker.
The use of i>clickers engages students immediately in a course. When using the devices, Brown allows his students about 30 seconds to select the correct answer to a multiple-choice question. Once the computer calculates the percentage of each answer received, it generates an answer profile in graph form that can be projected on a large screen.

“If a lot of students select an incorrect answer, I will let them stop and talk to each other to discuss the results and permit them to try again,” says Brown. After the students have had a chance to discuss the question and re-vote, most often they vote for the right answer. “They’ve learned the value of collaborative discussions and that a 30- to 60-second discussion is enough time for them to come up with the right answer as a class,” Brown notes.

In January 2009, i>clickers were used in a few select courses at the College. Today, they are available across the entire veterinary curriculum.

“It’s a perfect example of an innovative idea brought up by a single faculty member that is now being used across the College,” says Molitor. “First the idea was shared through the Friday conversation. It was then implemented and evaluated. And it is now well-established as an important teaching technique.”

Another member of the core group, Dr. Robert Washabau, brought an idea to the group as a conversation in teaching. Washabau’s idea was to hold journal article discussion groups with first-year veterinary students in which students would be given scholarly articles to read and report back to the group. The purpose of the exercise was to stimulate critical reading and scientific application to clinical problems. The journal club exercise was so successful that multiple instructors in the first-year curriculum implemented an integrated journal club reading.

For instance, in his Veterinary Virology course for first-year veterinary students, Molitor divides his class into “expert groups” for one learning activity. The students in each group are tasked with becoming proficient at a group of viruses over time. For example, they need to be able to answer whether their particular viruses can survive within the environment and the best way to eliminate them. At one point during the course, Molitor tells each group that Jimmy Jam has arrived on campus and he’s putting together a series of virus songs and looking to the College for help. Each group then generates a song about a particular virus or family of viruses and is given the opportunity to perform their virus song in class. One videotaped performance even ended up on YouTube.

Tapping creativity

While Molitor still uses the traditional lecture as a mainstay of teaching, he no longer lectures for 50 minutes straight. Using active learning techniques, Molitor breaks up a lecture to help keep students involved and engaged.

Last fall, Rob Porter, pathologist in the Veterinary Diagnostic Laboratory and clinical professor in the Veterinary Population Medicine Department, wanted to do something different in his second-year lung pathology lab, but he wasn’t sure what.

“You want the lab to highlight the information you present in lecture,” Porter says. “I wondered if I should let the students look at gross lung sections, but I wasn’t sure we had enough preserved specimens, and preserved specimens look different than acute lesions. So I asked myself: What is it that I really want them to take away from the lab?”

Throughout veterinary school, students must assimilate large amounts of information that they need to be able to recall years later, but sometimes that recall fails them. Porter decided to focus on pattern recognition in diseased lungs because he thought recall would be higher. He eliminated the option of projecting slides of diseased lung tissues because students spend countless hours in class looking at slides.

“I thought we needed to get them actively involved,” he says. “At first, I was going to have them draw the lesions.”

But then the idea hit him. He decided to have his students decorate cookies. That’s
Ricardo Chebel, assistant professor in the Veterinary Population Medicine Department, works with students studying large animal medicine.

right, decorate cookies. He broke his lab of 90 students into groups of three or four and assigned each group a respiratory disease. The next day, he gave each group four regularly shaped sugar cookies and one seven-by-ve-inch pink cookie from a local bakery shaped to resemble a healthy lung. Each group also had access to a variety of edible decorating supplies, such as icing, drops, food coloring, and sprinkles.

Their assignment was to decorate the lung cookie to resemble a diseased lung based on the disease assigned to their group; decorate two of the sugar cookies to reflect the causes of the disease; and decorate the other two to represent a defense mechanism of the body that might help ward off the disease.

“Their imaginations went wild,” Porter recalls. “I told them, ‘I’m expecting factual information, but you are the artist.’” The comments Porter heard while the students were busy at work ranged from scientific discussions about what pattern their diseased lung should take to almost childlike squeals of delight at being able to call on their inner creativity. “It was really rewarding for me to hear such an extreme range of opinions being expressed,” Porter says.

The creations were varied. A group of students working on bronchopneumonia colored the cranial-vertical portion of their lung cookie bright red, while decorating two of their cookies with sprinkles representing bacteria and the other cookies to resemble neutrophils or macrophages.

“They were big into creating inflammatory cells to represent defense mechanisms of the body,” Porter notes.

Carrie Rodman, class of 2012 and student council vice president, enjoyed Porter’s lab. Her group, which was assigned pulmonary thromboembolism, decorated its cookie to look like a large dark blood clot.

“It was fantastic, a nice change of pace,” Rodman says. “It was nice to see an instructor put in extra effort and not just make us go through the daily grind.”

At the end of the lab, each group presented their creations explaining why their cookies looked the way they did. “We left knowing our species and many of the other groups’ species,” notes Rodman. Porter expects to repeat his cookie lab next fall.

Let the games begin

Veterinary students have been playing a form of veterinary medical “Jeopardy” in class and at home for two years now. Introduced by Wingert, the game is an updated version of flash cards modeled after the popular “Jeopardy” television show, played online using an elaborate PowerPoint program. Faculty members have made the game available mostly as a teaching tool, so students can become proficient at musculoskeletal and neuropathology terminology. The engaging game allows students to review these topics at home in a fun and challenging way. But others, like Molitor, have actually used it in the classroom.
Molitor’s version of Jeopardy involves putting a group of students in the hot seat, then projecting the Jeopardy play board on a large screen. If the group answers correctly, another group enters the hot seat. Meggan Bandrick, a D.V.M./Ph.D combined degree student, played Jeopardy as a student in class and is now a teaching assistant for Molitor.

“I really liked playing it. We used it as an end-of-semester review,” says Bandrick. “It’s a game. It’s fun and it’s different. You get to be active in class. You’re less of a passive participant.”

Students have also been playing a version of “Who Wants to be a Millionaire” in Molitor’s Introductory Immunology course. As expected, a group of students face off with Molitor, who acts as the game host, doling out the questions. The student group has the same lifelines as the television program: ask the audience, 50-50, and phone a friend—typically a student group has the same lifelines as the television program: ask the audience, 50-50, and phone a friend—typically a student group has the same lifelines as the television program: ask the audience, 50-50, and phone a friend—typically a student group has the same lifelines as the television program: ask the audience, 50-50, and phone a friend—typically a teaching assistant.

“Everyone is really engaged,” says Bandrick. “They are paying attention and scrambling to get to be active in class. You’re less of a passive participant.”

In the third-year toxicology course, students are divided into groups of three or four to work on real clinical cases seen at the Veterinary Medical Center. In one instance, students were to determine whether the amount of ibuprofen eaten by a dog was a toxic dose or if the animal’s acute kidney failure was brought on by another cause. They then write up treatment orders.

“We are getting them to commit to being a doctor by having them make decisions on how to diagnose and treat.”

- Kelly Hall

Real life, real problems

It’s never too early for a veterinary student to begin to think like a doctor. That’s the philosophy of Kelly Hall, assistant clinical professor, Veterinary Clinical Sciences Department, who teaches one of five of the Professional Development Series courses called How to Think Like a Doctor, taken by students in the second year of veterinary school.

Even though second-year students have not yet learned all the cardiovascular or respiratory diseases, Hall says they still need to start the process of learning to think like a veterinarian.

“This course lays the groundwork for students to go out and find out what is wrong with a sick animal and how to prepare a treatment plan,” says Hall. Because there are multiple ways to approach a case, Hall discusses correct treatment options and the choices that could worsen the situation.

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“We are getting them to commit to being a doctor by having them make decisions on how to diagnose and treat,” says Hall. During the exercise, Hall encourages the students to use whatever resources they have, including laptop computers, PubMed, and class notes—just like they would if they were in practice.

Turning it upside down

After listening to a guest speaker at one Friday innovative teaching seminar, Erin Malone, associate professor, Veterinary Population Medicine Department, decided it was time to turn her Urology Systems lectures upside down. At least it was time to test out a new exercise in team-based learning, a technique that evolved from business schools but which has quickly spread to the sciences.

Typically, Malone had been doing what the vast majority of teachers do. She shushed her students’ heads with information provided in lecture format, then sent them home with a few tough problems to work on, and finally tested them on their knowledge.

Team-based learning reverses the processes. To test the technique, Malone divided her students randomly into two groups: traditional learning and team-based. Malone sent the students in the team-based learning group home with her PointPoint lecture and other printed materials.

“I told them I wanted them to go through the printed materials first, then come in and take a quiz, first on their own and then in a group,” Malone notes. She then used what would have been her lecture time to go through the quiz verbally with her students and work through a few of the advanced problems.

“It basically flipped the class,” she says. “If they only have me for two hours, shouldn’t they be using me to go through the hard stuff?”

Perhaps one of the newest technologies to come along that could revolutionize teaching, according to Brown, is Moodle, a course-management system.

“It’s a social networking space where students can come together to make a wiki page, a glossary of terms, and lots of other things,” says Brown. Set up by the instructor with links to course notes, assignments, Web resources, and other relevant material, page access is granted to students and guests when appropriate.

This year, Brown has been experimenting with sample quizzes on Moodle for his students, who can take a quiz, which automatically randomizes questions, as often as they want to review for exams.

“I’m hopefully doing paper tests for the last time this year,” he says.

Brown started using both clickers and Moodle in his 25th year of teaching, and plans to become more proficient in information technologies to exploit the full extent of Moodle’s capabilities.

“If I can do it, anyone can do it,” Brown says. “We have a great teaching environment here.”
In early 2009, veterinary students at the College learned that several education-based service groups were no longer going to be able to provide veterinary services to reservation communities in Minnesota. They quickly took action.

Working with Dr. Morgan Peterman of the Humane Society Veterinary Medical Association (HSVMA) and Dr. Larissa Minicucci at the College, Nola Anderson, class of 2011, Erin Brown, class of 2010, Christa Lloyd, class of 2011, Heidi McDevitt, class of 2012, Laura Lancieri, class of 2010, Heidi Schroer, class of 2011, Steve Tousignant, class of 2011, and Jen Wilder, class of 2011, founded the Student Initiative for Reservation Veterinary Services (SIRVS) in April 2009. Now recognized as an official University of Minnesota student group, the group’s mission is to train future veterinarians by serving communities in need.

By combining training opportunities (wet labs and pre-trip exams), cultural sessions, and on-site clinics, SIRVS gives students an opportunity to practice their profession-to-be in a real-life setting. Students work in teams to provide preventive care to dogs and cats and have multiple veterinarians from the College and private practices for consults. This mix of professionals provides the students with multiple viewpoints on patient care and allows them to start applying their knowledge by problem-solving issues in real cases.

The group has already hosted two clinics, one at the Leech Lake Reservation in August 2009 and one at the White Earth reservation in November 2009. The Leech Lake clinic provided service to 75 animals and their owners with a team of seven students and two veterinarians. The White Earth clinic expanded to include 20 students and 4 veterinarians, which allowed SIRVS to provide care to almost 300 animals. White Earth conservation officer Sheila Lafriniere, who helped organize the clinic and get the word out in the community, thanked the team for their work and hopes to have them back.

“I ended up seeing almost 300 animals over the two days,” says veterinary student Liz Prescott, who worked at the White Earth Clinic for a weekend during fall semester. “I am a first-year student, so I was paired with Nola Anderson, a senior. She was fantastic, and really helped calm my nerves! We performed physical exams, gave vaccinations, and did 4DX snap tests for parasite screening and FIV/FeLV snap tests for feline immunodeficiency virus and feline leukemia virus. The opportunity to start doing that in my first year is simply invaluable. The first time you speak to a client who is looking at you as the authority on their pet’s health is really an intense reminder of the great responsibility you are taking on as a doctor. That made a real impact on me.”

Clinic supplies have been gathered through donations from animal health partners and fundraising efforts on behalf of the students. SIRVS has already received two grants, one from HSVMA and another from the University of Minnesota. The goal is to allow SIRVS to be a sustainable service provider to these communities by maintaining such partnerships.

SIRVS has plans to expand so it can also provide spay/neuter services and services to large animals on Minnesota reservations. In the process, students not only learn how to manage the clinics, but gain insight into community health care for animals and their owners.

“The people in the community were very appreciative of our services,” says Prescott. “Many of them had financial constraints, and the closest local vet was an hour away. Many of the clients wanted to know when we would be back and if we could spay or neuter their pets. That was great to hear, since population control is a big issue on the reservation. Overall, I was really taken by the warmth with which we were received.”

SIRVS hopes to become a mainstay of the veterinary student experience at the University of Minnesota, combining community service with the opportunity to get experience. For more information or to find out how you can help, e-mail sirvs@umn.edu.
Chronic wasting disease was first identified in Minnesota in a captive elk facility in 2002. This finding prompted the need to conduct statewide surveillance for the disease in wild deer. Given that 500,000 Minnesota hunters harvest upwards of 250,000 deer annually, the most effective way to accomplish this task is to sample hunter-harvested deer. However, one of the most challenging aspects of a surveillance program is finding and adequately training people to work harvest registration stations.

During the fall of 2002, the College of Veterinary Medicine (CVM) partnered with the Minnesota Department of Natural Resources (DNR) to expand the surveillance workforce by enlisting CVM students. Students received training from DNR staff in chronic wasting disease biology, pathology, and sample collection and were turned loose across the state to work deer registration stations alongside DNR wildlife professionals. While working, the students needed to explain the surveillance project to hunters, answer questions, and encourage their participation in this important project, enhancing their skills in client communication, public interaction, and cross-disciplinary teamwork. In addition, they received one-on-one time with wildlife biologists, many with a lifetime of experience.

Thus began a partnership in experiential learning for CVM students that helped the state accomplish its surveillance program goals. With the finding of bovine tuberculosis in northwest Minnesota cattle in 2005, the DNR began collecting surveillance samples for bovine tuberculosis in addition to chronic wasting disease—and the student effort was expanded.

“Students go out all over Minnesota collecting samples for chronic wasting disease or bovine tuberculosis,” says Erika Butler, DNR wildlife veterinarian. “These students bring their technical expertise to the table, and the DNR staff contributes their knowledge as well. Hunters are very receptive to working with the students, which increases the success of collecting samples.”

The fall of 2009 marked the eighth year of the CVM/DNR partnership in which more than 300 students have participated since its inception. By participating in the surveillance team with DNR staff, CVM students have aided in the collection of over 40,000 samples for diagnostic testing.

“We simply don’t have the available staff,” Butler says. “Statewide surveillance would have been impossible to do without the students.”

Students Lisa Thompson and Anna Michael had their photo taken with Governor Tim Pawlenty at the November 7 Minnesota deer hunting opener. Veterinary students from the College assisted the Minnesota Department of Natural Resources in disease surveillance and grass-roots hunter education for bovine tuberculosis and chronic wasting disease.
VMC director offers career development services

Veterinary Medical Center director Dr. David Lee is now offering career development services to veterinary students and house officers in conjunction with the Office of Academic and Student Affairs. These services include resume review, advice on networking skills and interview strategies, and negotiation support.

Lee has provided advice to practices, veterinarians, and veterinary students throughout his career as an instructor and practice management consultant.

"I'm not interested in helping students just find a job, I want them to find the right job," Lee says. "When that happens, everyone wins."

Lee takes great pride in overseeing one of the nation's busiest veterinary teaching hospitals and feels strongly that University of Minnesota-trained graduates are uniquely well-suited to a busy, productive hospital setting.

"U of M students are hard-working and learn to multitask well while on clinics. Recent improvements in the curriculum emphasize customer service and communication, and that really shows once students hit the clinic floor."

Lee is also taking a greater interest in Minnesota veterinarians' practice needs for graduates.

"Producing veterinarians is a core college mission, but it is also critical that our graduates be marketable," he says. "Feedback from Minnesota veterinarians will help us ensure that we prepare graduates for real-world needs."

For up-to-date news and Information about the College of Veterinary Medicine, visit www.cvm.umn.edu.
Follow us on Facebook at www.facebook.com/umnCVM and Twitter at www.twitter.com/umnCVM.
The Raptor Center

Major initiatives: 2009

Research:

Lead poisoning

In 2009, The Raptor Center admitted 110 bald eagles, 41 (37 percent) of which suffered from clinical lead poisoning, the highest percentage in TRC’s history. Thirty-four of those eagles died from its effects or were euthanized.

Research conducted by Dr. Luis Cruz, a veterinary resident and graduate student from Costa Rica, has identified a strong relationship between lead poisoning in bald eagles and lead from spent ammunition. Eagles can pick up spent ammunition in the food they consume, such as deer carcasses and gut piles. Cruz also presented scientific and public education programs about lead poisoning in bald eagles to many audiences, including members of the Association of Avian Veterinarians, Brainerd Lakes Area Audubon Society, Minnesota Ornithologists Union, and Wildlife Disease Association. TRC has also launched the Clinical Wildlife Health Initiative, which is creating a database of lead information from wildlife seen in rehabilitation programs.

You can help

You can support The Raptor Center’s efforts to diagnose and treat eagles with lead poisoning. Pay for the cost of a diagnostic test with a donation of $45, a chelation treatment with a gift of $100, or the total cost of treating an eagle for lead poisoning with a gift of $2,500.

Volunteers are vital

A total of 290 volunteers donated more than 38,000 hours to The Raptor Center in 2009. Volunteers work in nearly every area of TRC, transporting injured birds, helping out in the clinic, exercising birds in preparation for release, presenting educational programs, and more.

Harley’s story

The Raptor Center has treated thousands of birds of prey since it was established in 1974, but only one has the distinction of being transported by motorcycle. Found injured on a highway in northwestern Wisconsin in August 2009, the adult male bald eagle was picked up, wrapped in a leather motorcycle jacket, strapped to a Harley with a bungee cord, and transported to a wildlife rehabilitator in Duluth. Later transferred to The Raptor Center, the thin, dehydrated eagle was treated for lead poisoning, a broken wing, and trauma to his right eye. On January 30, 2010, the eagle was outfitted with a GPS unit and released at Carpenter St. Croix Valley Nature Center in Hastings, Minnesota.

Follow Harley online!


2009 admissions

The Raptor Center treated 663 birds of prey, 110 of which were bald eagles. The most common species admitted to TRC in 2009 was the great horned owl, with 127 admissions. The most unusual: a northern hawk owl admitted in November 2009. Only 10 of these birds have been seen in the clinic since 1990.
Education: Expanding our reach

Each year, The Raptor Center reaches thousands of people of all ages through educational programs with live eagles, hawks, owls, and falcons. In 2009, staff and volunteers presented a total of 958 programs, connecting with more than 150,000 people.

A new initiative, Spanish-language programs, expanded The Raptor Center’s reach. Mike Billington, interpretive naturalist, and his wife, Zule Billington, a clinic and education volunteer, presented TRC’s first Spanish educational programs at the Lakes International Language Academy, a Spanish-immersion school in Forest Lake, Minnesota, in February 2009.

Jim Gilbert presents annual Duke Lecture


Kestrel Watch engages the public on the Web

Concerned that a drop in kestrel admissions might indicate a reduced population of the small falcons, TRC launched Kestrel Watch, a Web-based citizen-science project. Kestrel Watch invites the public to submit details about kestrel sightings and provides identification tips, natural history information, and answers to commonly asked questions about the species. Visit Kestrel Watch at http://kestrelwatch.ahc.umn.edu/kestrel_home.cfm.

Explore more

Learn more and support the work of The Raptor Center!

- Visit TRC’s Web site – www.TheRaptorCenter.org
- Read TRC’s blog – www.theraptorcenternews.blogspot.com/
- Visit Kestrel Watch – http://kestrelwatch.ahc.umn.edu/kestrel_home.cfm
- Donate to TRC at GiveMN.org – http://tinyurl.com/yes7avg

Celebrate our success: TRC meets equipment challenge

Thanks to the generous gifts of nearly 300 donors and matching funds from the Katherine B. Andersen Fund of the Saint Paul Foundation, The Raptor Center raised more than $132,000 to update decades-old clinic equipment. Items purchased include:

- **Digital radiograph machine.** This equipment allows TRC to obtain precise, detailed images of fractures and internal injuries. Because digital radiographs can be stored and shared electronically, this technology also enhances teaching and learning, and reduces the environmental impact of image processing.

- **A Nonin Lifesense capnograph.** Now an indispensable part of TRC’s anesthetic protocol, the capnograph allows clinic staff to monitor patients under anesthesia even when they cannot be seen under all the surgical drapes and feathers.

- **A syringe pump.** For critically ill patients and those undergoing long surgeries, the syringe pump increases success by precisely regulating infusion of intravenous medications.

New education ambassadors

The Raptor Center added three new birds to its team of education ambassadors in 2009:

- **Mêstaäe, an eastern screech-owl hatched in 2008.** A human-imprinted bird, he cannot be released to the wild.

- **A female northern harrier hatched in 2008.** She is blind in her left eye.

- **A female American kestrel hatched in 2009.** Hit by a car, she is blind in one eye and unable to vocalize.

Photos by Amber Burnette
New directors of graduate studies named

The College’s Graduate Programs Office has named two new directors of graduate studies. Michael Murtaugh, professor, Veterinary and Biomedical Sciences Department, will direct the comparative and molecular biosciences graduate program, and Srinand Sreevatsan, associate professor, Veterinary Population Medicine Department, will direct the veterinary medicine graduate program. Both begin their new positions on June 1.

**Michael Murtaugh**
**Director of Graduate Studies**
**Comparative and Molecular Biosciences**

Michael Murtaugh came to the University of Minnesota in 1985. His research interests include molecular mechanisms of health and disease, primarily studying infectious diseases of swine, swine immunology, and immunobiology. Murtaugh has long been active in the College’s graduate programs and has advised or co-advised nine M.S. students and 16 Ph.D. students. He also sat on 54 examining committees. He has participated in and created courses for graduate students and continuing education courses in biotechnology, molecular diagnostics, immunology, molecular biology, animal health and disease, and microbiology. He brings a commitment to graduate education and the expectation that senior faculty will accept administrative responsibilities to exercise the experience and knowledge they have gained from extended service to the University.

“I believe that senior faculty have a breadth of knowledge and perspective acquired through experience in the U of M environment that can help guide the program in making wise decisions that will maintain high quality, provide students with the knowledge and skills to compete successfully in a challenging and demanding career, and help us recruit effectively,” Murtaugh says.

Bruce Walcheck completes his term as director of graduate studies for the comparative and molecular biosciences program at the end of the academic year.

**Srinand Sreevatsan**
**Director of Graduate Studies**
**Veterinary Medicine**

Srinand Sreevatsan joined the CVM faculty in 2005 after spending seven years at the Ohio State University. The principal focus of his laboratory is to determine the molecular mechanisms by which bacteria and viruses establish infection. His interests include several issues in host-pathogen interactions, with specific emphasis on the evolution of the pathogen and its adaptation to hosts. Consequently, his studies are directed at understanding the evolution of virulence factors in pathogenesis, establishing the diversity of bacterial or viral pathogens to understand the attributes of successful organisms, elucidating the trait-allele associations of pathogens at the host interface, and developing high-affinity ligands to detect and treat a variety of diseases. The translational aspect of these investigations is in the development of improved diagnostic tests and methods for microbial characterization and identification, as well as studies into new generations of antimicrobial vaccines and therapeutics.

In addition to his research, Sreevatsan has been active in graduate programs and has advised or co-advised seven Ph.D. students and eight M.S. students. To complement his advising role, he has mentored 14 post-doctoral scientists and served on 14 Ph.D. committees.

“I believe that senior faculty have a breadth of knowledge and perspective acquired through experience in the U of M environment that can help guide the program in making wise decisions that will maintain high quality, provide students with the knowledge and skills to compete successfully in a challenging and demanding career, and help us recruit effectively,” Murtaugh says.

Bruce Walcheck completes his term as director of graduate studies for the comparative and molecular biosciences program at the end of the academic year.

**Nichol Schultz named Pfizer-Morris Animal Foundation fellow**

In a new partnership to advance training of veterinary health care scientists, Dr. Nichol Schultz has been named the College’s Pfizer-Morris Animal Foundation Fellow. This fellowship supports Ph.D. training of veterinarians as research scientists promoting animal health and well-being. Working with Molly McCue, assistant professor, Veterinary Population Medicine Department, and Jim Mickelson, professor, Veterinary and Biomedical Sciences Department, Schultz is studying the molecular basis of equine genetic disease and genomic influences on non-inherited disease. The focus of her research is identification of genetic susceptibility loci in equine metabolic syndrome.

The new program commits a minimum of nearly $1.7 million over four years toward a solution to the growing need for trained veterinary scientists. For more information about the Morris Animal Foundation, visit www.morrisanimalfoundation.org/.

**John Deen completes his term as director of graduate studies for the veterinary medicine program at the end of the academic year.**
STUDENT PROFILE
Susan Detmer, Ph.D. candidate, veterinary medicine graduate program

Although she is a Nebraska Cornhusker by birth, Dr. Susan Detmer has lived in Minnesota for most of her life. After attending high school in White Bear Lake, Minnesota, and starting college at Warren Wilson College in Swannanoa, North Carolina, she graduated in 1997 from the University of St. Thomas in St. Paul, Minnesota, with a bachelor’s degree in chemistry and biology. She went on to earn her doctor of veterinary medicine degree at the University of Minnesota in 2003. Detmer worked in private practice for three years, initially at a mixed animal clinic in Nebraska and then at a small animal clinic in Shakopee, Minnesota, before returning to the College to start a combined Ph.D./residency training in anatomic pathology in 2006. Detmer was recently interviewed for Pro les.

What is the focus of your Ph.D. research?

My research focuses on control and characterization of in uenza A viruses in swine. For pigs, in uenza is a year-round respiratory disease, which for most of the 20th century, was caused by relatively stable in uenza viruses. Over the last decade, however, there has been an exponential increase in the prevalence of genetically diverse in uenza A viruses in the U.S. swine population that contain a mixture of genetic material from avian, human, and swine in uenza viruses. Knowing the genetic, antigenic, and pathogenic features of viruses is important to prevent continued introduction of human and avian viruses into swine herds and the potential spillback of these viruses to humans.

How did you get interested in your area of research?

I have always been interested in infectious diseases and pathology. Studying in uenza virus in pigs has given me an opportunity to combine my pathology experience with my graduate training in molecular biology to study potential control measures and the evolutionary events associated with vaccine pressure and interspecies interactions. It is an exciting time for in uenza researchers because, for the rst time, we have been able to study an in uenza pandemic while it is occurring with our current diagnostic tools.

Why did you choose the University of Minnesota for your graduate degree?

I started working at the Minnesota Veterinary Diagnostic Laboratory a few months before I started my D.V.M. degree at the U of M. When I completed my D.V.M. degree, I knew that I would eventually return here for my residency in pathology and a Ph.D. The anatomic pathology residency program at the University of Minnesota is an intensive, three-year training program that provides training in diseases of a variety of animal species, such as pets, livestock, and research animals. I was able to combine this program with my Ph.D. program by taking most of my coursework during my residency. Now that I have finished my residency, I am able to focus on my research and complete my Ph.D.

What has been the most valuable part of your graduate education?

I had put my interest in molecular biology on the back burner when I became a veterinarian. However, when I returned for more graduate studies, I was able to pursue this interest. I started by learning about different molecular techniques from Drs. Doug Foster and Mike Murtaugh before I developed a diagnostic test currently offered at the Veterinary Diagnostic Laboratory. I have also studied molecular epidemiology under Drs. Srinand Sre-evatsan and Simone Oliveira, and learned techniques that I am using in my research. I have also had the opportunity to work with experts in the eld of in uenza research at the Minnesota Center for Excellence in In uenza Research and Surveillance, including my advisors Drs. Sagar Goyal and Marie Gramer.

Once you complete your degree, what are your plans?

I am planning to take the pathology board examination and to continue working as a veterinary pathologist. Ideally, I would like to have a faculty position where I could combine all three of my passions: diagnostic pathology, research, and teaching.

What advice you would give students just beginning their Ph.D. education?

“Be sure that you take the time to enjoy the small moments of victory and defeat with your family and friends, as your success will be measured by what you learn along your journey and not by arriving at your destination.”

- Susan Detmer
What makes a horse a horse?

Professors Jim Mickelson and Stephanie Valberg were among the authors of “Genome Sequence, Comparative Analysis, and Population Genetics of the Domestic Horse,” published in the November 6, 2009, issue of the journal *Science*. The paper was the first published report of the horse genome sequence.

Sequencing of the horse genome began in 2006, building upon a 10-year collaborative effort known as the Horse Genome Project, in which an international team of scientists built preliminary maps of the horse genome and began using genomics tools to address health issues in horses. Mickelson and Valberg played important roles in the project, particularly in building the initial maps of the horse genome and demonstrating that the horse genome maps and DNA sequence tools could be used to identify disease-causing mutations.

To learn more, visit www.cvm.umn.edu/newsarchives/2009/horsegenome.
University of Minnesota, Virginia Tech awarded USDA grant to complete sequencing of turkey genome

Researchers at the University of Minnesota and Virginia Tech received a two-year, $908,280 grant from the U.S. Department of Agriculture to complete sequencing the genome of the domesticated turkey, Meleagris gallopavo, in November. The funding is being used by the Turkey Genome Sequencing Consortium—which includes Kent Reed, associate professor in the College of Veterinary Medicine’s Veterinary and Biomedical Sciences Department—to complete the genome sequencing using next-generation sequencing platforms, assemble the genome sequence, and identify genes and functions in the final genome sequence by use of a sophisticated annotation pipeline. The award will also help put in place a bioinformatics and comparative genome resource for both chickens and turkeys.

Turkey is the fourth most economically important source of meat for consumers in the United States. The genome sequence and genomic resources should provide turkey breeders with the tools needed to improve commercial breeds of turkey for production traits such as meat yield and quality, health and disease resistance, and fertility and reproduction.

“The organic and animal rights movements, along with our nation’s important environmental concerns, continue to put pressure on animal agriculture to become more innovative and efficient in production in order to maintain an adequate, inexpensive, and safe food supply,” says Peter E. Poss, a retired turkey veterinarian, vice president with Jennie-O Foods, farm production manager, and member of the College’s class of 1957. “Turkey is an important item in our food supply, and the genome project can lead to improvements in disease resistance, livability, feed efficiency, rate of gain, and meat yield. These production improvements will help the turkey industry in Minnesota to continue to be successful.”

“An exciting prospect of this sequencing effort is the ability to compare the turkey genome with those of other species,” Reed adds. “Results from the initial sequencing are already making an impact on our research. The new sequence will not only provide information on the turkey genome, but will also help refine the chicken genome sequence.”

Decoding the turkey’s genetic gobbledygook

Kent Reed visits with young turkeys at UMore Park, the University of Minnesota’s outreach, research, and education park in Rosemount, Minnesota. Photo by Sue Kirchoff

Did you know?

Minnesota is #1 turkey producer

According to the Minnesota Turkey Growers Association, approximately 45 million turkeys are raised on 600 Minnesota farms each year — enough to secure a #1 ranking for turkey hatching, production and processing in the U.S.
Can a veterinarian mend a broken heart?

Last October, David Jenkins and Gizmo, his three-pound Yorkshire terrier-mix puppy, made a 24-hour drive from their home in Pensacola, Florida, to the University of Minnesota Veterinary Medical Center (VMC). They were on a life-saving mission: Gizmo suffered from patent ductus arteriosus (PDA), the most common congenital cardiovascular defect of dogs, which leaves an opening between the pulmonary artery and the aorta. Without the procedure offered in a clinical trial at the VMC, the 6-month-old dog would have likely died of heart failure within a year.

The two-and-a-half-hour procedure was performed by Dr. Janet Olson, Dr. Anthony Tobias, and the Cardiology Service team on October 6, and an energetic Gizmo was released the next day—a quick, pain-free recovery that would not have been possible if she had undergone an invasive, “open-chest” procedure. Instead, Gizmo went home with just a few sutures in her upper hind leg and a life-saving device fully occluding her PDA.

To learn more, visit www.cvm.umn.edu/newsarchives/2009/Gizmo. See the next issue of Profiles for the results of the Cardiology Service’s research.

$185 million USAID cooperative agreement

College of Veterinary Medicine is part of new team to improve global response to emerging pandemics

Experts from the University of Minnesota College of Veterinary Medicine, School of Public Health, School of Nursing, Medical School, College of Education and Human Development, and College of Food, Agricultural and Natural Resource Sciences are now on the front lines working to help developing countries better respond to emerging animal diseases that pose a threat to human health. The University of Minnesota is part of a multidisciplinary team that is implementing a United States Agency for International Development (USAID) cooperative agreement with funding up to $185 million. CVM faculty led the grant submission and now lead the University’s project development.

The project, called RESPOND, is one of five in the Emerging Pandemic Threats Program that is designed to preempt or combat the early stages of outbreaks of zoonotic diseases—diseases that can spread between animals and humans—before those outbreaks can grow into epidemics. The other four projects are PREDICT, IDENTIFY, PREVENT, and PREPARE.

To learn more, visit www.cvm.umn.edu/newsarchives/2009/usaid/.

VDL granted full accreditation

The U of M Veterinary Diagnostic Laboratory (VDL) System, made up of the Veterinary Diagnostic Laboratory and Minnesota Poultry Testing Laboratory, was recently granted full accreditation for seven years by the American Association of Veterinary Laboratory Diagnosticians.

Stay in touch

For up-to-date news and information about the College of Veterinary Medicine, visit www.cvm.umn.edu. Follow us on Facebook at www.facebook.com/umnCVM and Twitter at www.twitter.com/umnCVM.
Paul Yeske to receive Allen D. Leman Science in Practice Award

Dr. Paul Yeske of St. Peter, Minnesota, will be honored with the Allen D. Leman Science in Practice Award at the Allen D. Leman Swine Conference at Saint Paul RiverCentre on September 18-21. Established by the College of Veterinary Medicine and Pfizer Animal Health in 1994, the award honors individuals whose achievements contribute significantly to the body of knowledge related to swine health and management. Yeske received his D.V.M. from Iowa State University and earned a master's degree in swine medicine from the College.

Yeske is active in the field of swine health management, with a particular focus on disease control and eradication research. He practices at the Swine Vet Center, P.A., in St. Peter and serves on the PRRS Eradication Task Force and Production Animal Disease Risk Assessment program committee for the American Association of Swine Practitioners.

CAHFS, GIFSL lead farm-to-table program

Eleven students and professionals from five countries in North and South America completed an October 25-31 Farm-to-Table Study Program in Uruguay hosted by the Center for Animal Health and Food Safety and Global Initiative for Food Systems Leadership in collaboration with Universidad de la Republica in Uruguay. Designed to explore the production pathway of food products, the initiative was aimed at giving leaders and future leaders in the food production sector a better grasp of how products are manufactured and the various necessary inputs at each step from farm to table. In five intensive days of experiential learning, the group visited 12 establishments across southern Uruguay, from an extensive beef cattle operation, to a specialty cheese processor, to a world-class meat-processing plant. Each day was summarized with group round-table discussions, with perspectives provided by program participants sharing their diverse experiences and opinions. Participants addressed animal welfare and health, food safety, and public health and interacted with government and private sector leaders.

The College supported the Farm-to-Table Study Program with funds from CEN-SHARE (Center to Study Human-Animal Relationships and Environments). For more information about how you can support the program, visit www.cvm.umn.edu/devalumni/.

Carol Cardona and Zheng Xing join the College

Dr. Carol Cardona, an expert in avian influenza, joined the College on March 1 as the Ben Pomeroy Chair in Avian Medicine. One of the few endowed poultry chairs in the United States, the Pomeroy Chair was established in 1985 in honor of Professor Emeritus Benjamin Pomeroy, who spent 47 years at the University as a professor, department chair, and acting dean.

Also joining the College as associate professor in the Veterinary and Biomedical Sciences Department was Dr. Zheng Xing, Cardona’s husband. Both were previously with the University of California Davis, where their research explored the topic of immunity to the H1N1 virus.

Learn more Cardona’s appointment to the Ben Pomeroy Chair at www.cvm.umn.edu/newsarchives/2010/pomeroychair/.

Rare bird at The Raptor Center

One of the most unusual species to be treated at The Raptor Center in recent months was a northern hawk owl. These medium-sized, gray-and-white owls are inhabitants of the coniferous forests of the far northern regions of North America and Eurasia. They tend to be nomadic, migrating south within Canada and into the northern United States when prey availability is low. These southern movements, called irruptions, may involve traveling thousands of miles.

Only 10 hawk owls have been treated at TRC in the past 20 years. The 2009 case was found on the side of a highway in Hibbing, Minnesota, in November and transported to The Raptor Center. After treatment for a fractured right scapula, trauma to its right eye, and head tremors, the owl graduated to TRC’s light-exercise program in preparation for release.

Farm-to-Table Study Program participants Ryan Newkirk, left, a Ph.D. candidate in epidemiology at the University of Minnesota School of Public Health, and Armando Hoet, assistant professor and coordinator of the veterinary public health program at The Ohio State University College of Veterinary Medicine, look at the cattle entering the slaughter facility at the Tacuarembó Marfrig Group cattle slaughter facility in Colonia, Uruguay.

Carol Cardona and Zheng Xing join the College

Zheng Xing and Carol Cardona
**FACULTY AND STAFF NEWS**

Al Beitz, professor and interim chair of the Veterinary and Biomedical Sciences Department, received a University of Minnesota Distinguished Teaching Award for Outstanding Contributions to Postbaccalaureate, Graduate, and Professional Education in April.

The American Association of Swine Veterinarians (AASV) honored Robert Morrison, professor in the Department of Population Medicine, with the 2010 Howard Dunne Memorial Award at the association’s annual meeting in Omaha, Nebraska, March 8. The award recognizes an AASV member who has made important contributions and provided outstanding service to the association and the swine industry.

At the Minnesota Veterinary Medical Association (MVMA) annual meeting in February, Peggy Root Kustritz, associate professor of small animal theriogenology, vice-chair, Veterinary Clinical Sciences Department, and assistant dean of education, was awarded the 2010 Outstanding Faculty of the College of Veterinary Medicine Award, which is given to a faculty member who provides outstanding service to Minnesota veterinarians, gives his or her time and talent to the veterinary profession, and is a dedicated contributor to organized veterinary medicine. Kustritz was also named Theriogenologist of the Year for the American College of Theriogenologists and Society for Theriogenology.

Veterinary Medical Center manager Sheryl Ferguson was named Veterinary Technician of the Year at the Minnesota Association of Veterinary Technicians Convention in February.

Srirama Rao, associate dean for research and professor, Veterinary and Biomedical Sciences Department, and David Bernlohr, professor, Medical School, were awarded an Academic Health Center Faculty Research and Development Grant for the project “Elevated PAI Expression in Obesity Leads to Increased Susceptibility to Asthma” in December.

John Collister, associate professor, and Timothy Johnson, assistant professor, both of the Veterinary and Biomedical Sciences Department, received University of Minnesota Grant-in-Aid awards—Collister for his research “Hypertensive Effects of Ang II are Dependent on Reactive Oxygen Species in the MnPO” and Johnson for “Unraveling Novel Mechanisms of Plasmid-Mediated Virulence in Escherichia coli.”

Pat Redig, professor in the Veterinary Clinical Sciences Department and co-founder of The Raptor Center, was the recipient of the Eagle Conservation Alliance’s Lifetime Achievement Award for his career accomplishments in raptor biology and medicine.

Julie Wilson, associate professor in the Veterinary Population Medicine Department, has been appointed to the board of directors of Veterinarians Without Borders U.S., a volunteer network of veterinarians working with communities to improve the well-being of animals, people, and our planet.

Shaun Kennedy, director of the National Center for Food Protection and Defense and assistant professor in the Veterinary Population Medicine Department, briefed White House national security staff on the food defense threat in December and the deputy assistant to the president for homeland security and counterterrorism in January. He was also one of two panelists at the Institute on Science for Global Policy for their session on food system sustainability in December.

Randy Singer, associate professor, Veterinary and Biomedical Sciences, traveled to Copenhagen, Denmark, in September to assist U.S. Representatives Collin Peterson (Minnesota), Leonard Boswell (Iowa), Steve King (Iowa), and David Scott (Georgia) in their continued education on use of antimicrobials in animal agriculture. Singer served as an academic expert on the topic and participated in meetings with various groups in Denmark concerning their experience with removing antimicrobial growth promoters from animal agriculture. The group also discussed the implications of such measures should they be applied in the United States.

New diplomats

Newly board certified in their specialty are—

- **Mary Boyce**, post-doctoral fellow, Veterinary Population Medicine Department, who is now a diplomate of the American College of Veterinary Surgeons
- **Julie Churchill**, assistant clinical professor in the Veterinary Clinical Sciences Department, who is now a diplomate of the American College of Veterinary Nutrition
- **Maria Killos**, instructor in the Veterinary Clinical Sciences Department, who is now a diplomate of the American College of Veterinary Anesthesiologists
- **Anne Nicholson**, instructor, Veterinary Population Medicine Department, who is now a diplomate of the American College of Veterinary Surgeons
- **Stacy Tinkler**, veterinary resident, Veterinary Population Medicine Department, who is now a diplomate of the American College of Veterinary Internal Medicine

Stay in touch

For more faculty, staff, student, and College news, see CVM This Week at www.cvm.umn.edu/cvmthisweek. Follow the College on Facebook at www.facebook.com/umnCVM and Twitter at www.twitter.com/umnCVM.
Students attend AVMA Student Legislative Day

Three students from the CVM attended the American Veterinary Medical Association (AVMA) Student Legislative Day program in Washington, D.C., in February. Scott Gregorich, Lindsey Hornickel, and Philip Kieffer (all class of 2012) took part in the program, which was designed to educate students about the legislative process and the AVMA’s involvement in shaping policy. Speakers included members of the AVMA’s Governmental Relations Division, professional lobbyists, and veterinarians employed with the federal government.

The event also provided students with the opportunity to influence policy by meeting with lawmakers and their staff on Capitol Hill. Gregorich, Hornickel, and Kieffer met with representatives from the offices of Senators Amy Klobuchar and Al Franken and Representatives Betty McCollum and Erik Paulsen. The students lobbied for support of the Veterinary Services Investment Acts and for appropriations for the loan repayment act.

Gregorich and Kieffer were selected to represent the University of Minnesota based on essays explaining their interest in the opportunity and how they hoped to use the experience. Hornickel attended as a SAVMA (Student American Veterinary Medical Association) House of Delegates governmental affairs committee member and organizer for next year’s event.

Aric Frantz, center, with his mentors, Tim O’Brien, professor in the Veterinary Population Medicine Department, and Jaime Modiano, Perlman Chair in Animal Oncology, professor of comparative oncology, and director of the Animal Cancer Care and Research program.

Aric Frantz, a Ph.D. candidate in the College’s comparative and molecular biosciences graduate program, has been awarded a two-year fellowship by the Morris Animal Foundation. The $93,000 fellowship supports Aric’s project entitled “Enrichment for Canine Cancer Stem Cells by In Vitro Manipulation and Chemotherapy.”

Olivia Kilian, a third-year veterinary student, has been honored with the University of Minnesota President’s Student Leadership and Service Award (PSLSA).

“The PSLSA is a well-deserved recognition of your efforts to strengthen the University community and a wonderful affirmation of the value of your leadership and service to University faculty, staff, and students,” wrote Robert H. Bruininks, president, in a letter to Kilian. In the nomination letter submitted by Laura Molgaard, associate dean for academic and student affairs, and Deb Wingert, director of educational development, Kilian was praised for her leadership and service. She received the award at a banquet in Coffman Memorial Union on May 3.

Olivia Kilian

Aaron Nystrom, a third-year veterinary student, was awarded a 2009 American Association of Bovine Practitioners Foundation-Penzer Animal Health Scholarship. The $5,000 scholarship will help support Nystrom’s education in large animal medicine.

“Receiving this scholarship confirmed that I am in the right profession and the future is bright,” Nystrom says. “With this scholarship, I will now be able to explore more opportunities to learn.”

The Association for Women Veterinarians Foundation awarded a $1,500 scholarship to Jaimi Johnson, class of 2012. Johnson was one of seven recipients selected from 77 applicants based on leadership potential, career path, and influence in veterinary medicine both in and outside of school.

Jennifer Johnson, a student in the comparative and molecular biosciences graduate program and post-doctoral fellow in the Veterinary Population Medicine Department, won the 2009 Young Investigator Award at the Merck-Merial NIH Veterinary Scholars Symposium held at North Carolina State University in August.

Three veterinary students have been selected to receive Veterinary Student Scholars Program funds from the Morris Animal Foundation. The students, their advisors, and their research areas:

- **Jonathan Clayton**, working with Dr. Tim Johnson. Research: Elucidating and Reducing Enterocolitis in Captive and Wild Non-Human Primates
- **Felice Cuomo**, working with Dr. Molly McCue. Research: In uences of Multiple Genetic Risk Factors in Recurrent Uveitis
- **Jaimi Johnson**, working with Dr. Margaret Duxbury. Research: Behavioral Factors Associated with Successful Adoption of Pit Bull Dogs from an Animal Shelter
$3 million gift expands capacity in small animal orthopedic surgery

A $3 million gift from the Tata Group, a worldwide business conglomerate based in India, will help expand research and teaching in veterinary orthopedic surgery at the College and improve veterinary care and education in India. The gift will be used to create an endowment supporting small animal orthopedic surgery and to establish the Tata Group Chair in Veterinary Orthopedic Surgery, held by Dr. Michael Conzemius.

A professor of surgery at the College since 2006, Conzemius leads a research team that is internationally recognized for basic and clinical research in elbow replacement systems, gait analysis, and the genetics of ligament injury and repair. This work has also led to greater understanding of the postoperative effects of rehabilitation and improvements after canine surgery and optimizing techniques for use of canine adult stem cells. Conzemius has pioneered an animal model for understanding important human orthopedic conditions such as those affecting the hip joint. Funds from the endowment will be used to provide additional support for faculty conducting research in these areas.

Learn more about the Tata Group Chair in Veterinary Orthopedic Surgery at www.cvm.umn.edu/newsarchives/2010/tata/.

For more information about supporting the work of the College of Veterinary Medicine, visit www.cvm.umn.edu/devalumni or contact Sharon Staton, director of advancement, at 612-624-1247 or stat001@umn.edu.

Giving opportunities

There are many ways to give to the College of Veterinary Medicine, and your gift can benefit the overall mission or a specific program of your choice. For more information, visit www.cvm.umn.edu/devalumni/.

Featured fund—

Dr. Linda Wolf Companion Animal Emergency Fund

The Dr. Linda Wolf Companion Animal Emergency Fund was established in 2005 by College of Veterinary Medicine graduate Linda Wolf, a veterinary consultant and nationally known speaker in the field. The fund was created to offer an alternative for Veterinary Medical Center clients who do not have the financial means to pay for their companion animal’s emergency treatment. For more information, visit www.cvm.umn.edu/devalumni/.

CVM alumni: We want to hear from you!

The College—and your fellow alumni—would like to know about your accomplishments! Have you started a new position, been promoted, or retired? Have you received an award or published a book?

Send us your news online by going to www.cvm.umn.edu/devalumni/ Accomplishments/update, e-mail Alicia Johnson, director of continuing education and alumni relations, at amj@umn.edu, or send a note to CVM Alumni Relations, College of Veterinary Medicine, 1365 Gortner Avenue, St. Paul MN 55108.

New president of the MVMA—

An interview with Dr. Mike McMenomy, class of 1969

McMenomy shares how he came to practice at the Kitty Klinic, why he considers the University of Minnesota Veterinary Medical Center an extension of his practice, his advice for veterinary students, and more.

Read the interview on Profiles Online at www.cvm.umn.edu/profilesonline.
**MARK YOUR CALENDAR**

**Raptor Bowl 2010**  
**Wednesday, July 14**  
2-7 p.m.  
Brit’s Pub & Eating Establishment  
1110 Nicollet Mall, downtown Minneapolis  
This annual event helps support The Raptor Center. Learn more at http://tiny.cc/onfkr.

**Points of Pride Research Day**  
**Wednesday, September 29**  
Animal Science/Veterinary Medicine Building  
The program will include a morning poster competition in which graduate students, post-doctoral fellows, residents, and the College’s signature programs and centers will present their research; seminars by the Distinguished Research Alumnus and Pew Research Excellence award winners; and presentations of awards to the Distinguished Research Partner and poster competition winners. A reception will follow.

Points of Pride celebrates the advances made in CVM laboratories and clinics, in the field, and on the farm. Posters will highlight research across the College in areas critical to solving problems in Minnesota, across the country, and around the world, including infectious diseases, ecosystem health, livestock health, food safety, and animal models of human disease.

“This event honors those individuals who spend so much of their time performing research within our College and our partners who make much of this research possible,” says Srirama Rao, associate dean for research.

**Alumni Reunion**  
**Friday, October 1**  
9:30 a.m.-5 p.m.  
The event will include tours of the College, the Equine Center, The Raptor Center, and the Veterinary Medical Center, a lunch reception, and a visit to the Veterinary Historical Museum. Alumni are also invited to attend the Duke Lecture at 4 p.m.

**Duke Lecture**  
**Friday, October 1**  
4-5 p.m.  
215 Pomeroy Student-Alumni Learning Center  

**College of Veterinary Medicine Open House**  
**Visit www.cvm.umn.edu for date and time**  
Learn about veterinary medicine past, present, and future, and view discussions, displays, and demonstrations on animal care, veterinary medicine, and how to become a veterinarian. Enjoy close-up views of live animals and tours of the Equine Center, The Raptor Center, the Veterinary Medical Center, and more.

**Stay in touch**  
For up-to-date news and information about the College of Veterinary Medicine, visit www.cvm.umn.edu. Follow us on Facebook at www.facebook.com/umnCVM and Twitter at www.twitter.com/umnCVM.

**Continuing education opportunities**

**Mather Lecture**  
Focus on the Cat: A Case-Based, Interactive Discussion about Feline House Soiling, presented by Dr. Margaret Duxbury, and Feline Reproductive Behaviors in Altered Animals—What Do They Mean? presented by Dr. Margaret Root Kustritz  
June 3  
6:30-8:30 p.m.  
215 Pomeroy Student-Alumni Learning Center

**Allen D. Leman Swine Conference**  
September 18-21  
RiverCentre Conference Facility, St. Paul, Minnesota

**Fall Equine Conference**  
October 8-9  
Leatherdale Equine Center

**Care and Management of Captive Raptors**  
October 19-22  
The Raptor Center

**Companion Animal Symposium**  
October 21-22  
Leatherdale Equine Center

For more information about continuing education opportunities or to register, visit www.cvm.umn.edu/VetMedCE or call 612-624-3434 or 800-380-8636.
Mark your calendar for Homecoming 2010!

Alumni Reunion
The event will include tours of the College, the Equine Center, The Raptor Center, and the Veterinary Medical Center, a lunch reception, and a visit to the Veterinary Historical Museum. Alumni are also invited to attend the Duke Lecture at 4 p.m.
Friday, October 1 • 9:30 a.m.-5:00 p.m.

Duke Lecture
Tracking Apex Predators
Presented by Mark Martell, director of bird conservation, Audubon Minnesota, and Dave Mech, founder and vice chair, International Wolf Center, and senior research scientist, U.S. Geological Survey
Friday, October 1 • 4:00-5:00 p.m. • 215 Pomeroy Student-Alumni Learning Center

College of Veterinary Medicine Open House
Learn about veterinary medicine past, present, and future, and view discussions, displays, and demonstrations on animal care, veterinary medicine, and how to become a veterinarian. Enjoy close-up views of live animals and tours of the Equine Center, The Raptor Center, the Veterinary Medical Center, and more.
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