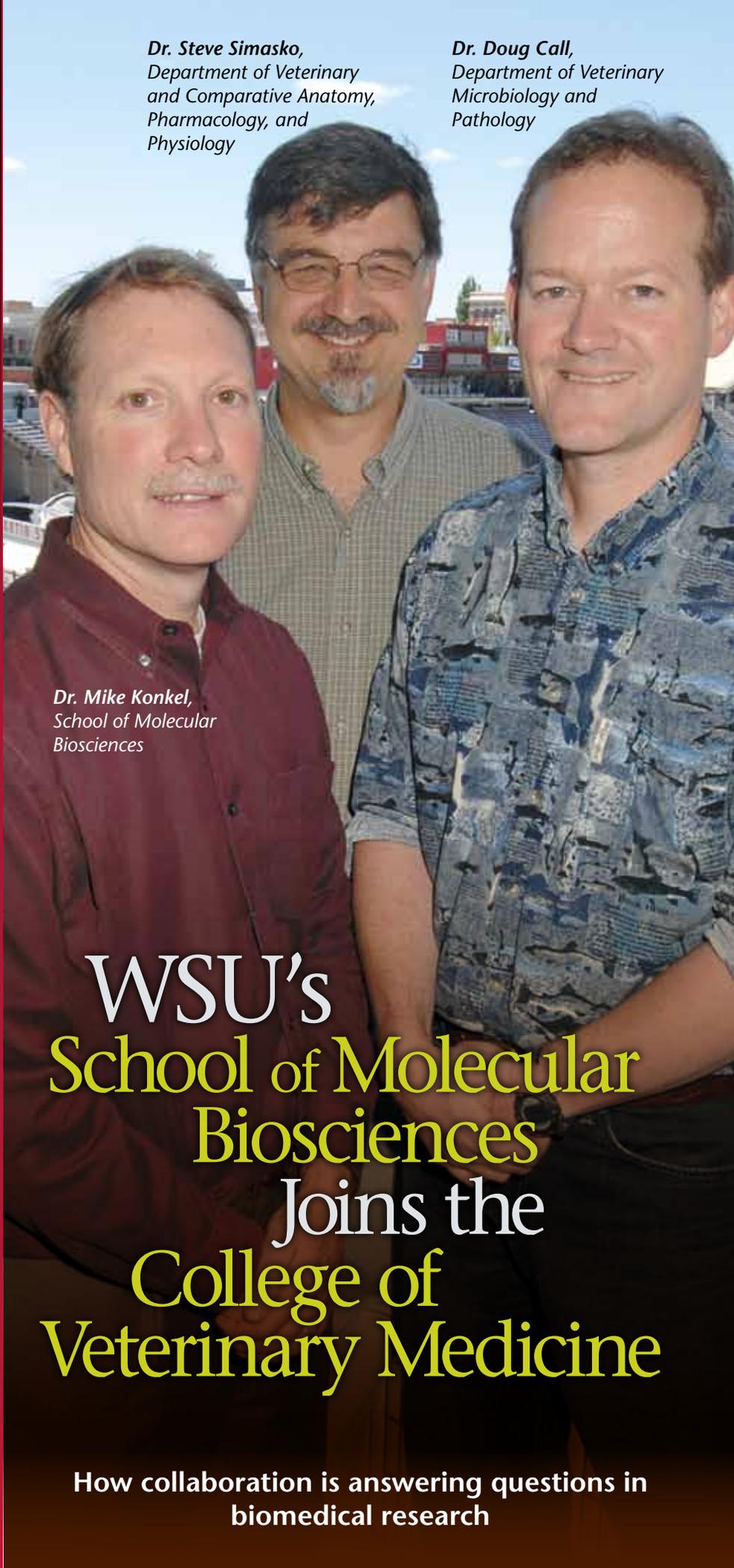




Veterinary

executive report

Fall 2010



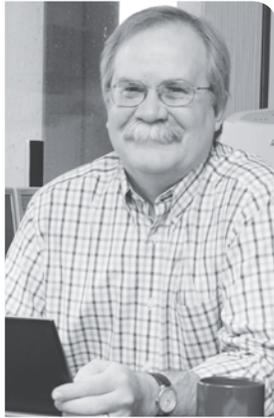
*Dr. Steve Simasko,
Department of Veterinary
and Comparative Anatomy,
Pharmacology, and
Physiology*

*Dr. Doug Call,
Department of Veterinary
Microbiology and
Pathology*

*Dr. Mike Konkel,
School of Molecular
Biosciences*

WSU's School of Molecular Biosciences Joins the College of Veterinary Medicine

Message from the Dean



Dean Bryan Slinker
WSU College of Veterinary Medicine

Whew...what a summer it has been! We broke ground in June for the new **Global Animal Health Building** located just east of the Veterinary Teaching Hospital. The building—made possible in large part by the generosity of the Bill & Melinda Gates Foundation—is expected to be completed by the spring of 2012 and will be a premier research facility for the University.

In July, we welcomed faculty colleagues, staff, and students from the **School of Molecular Biosciences (SMB)** to the college. The school's director, **Dr. John Nilson**, joins our leadership team as he begins his eighth year at WSU. The school, which was originally created about 10 years ago by merging the biochemistry/biophysics, microbiology, and part of genetics/cell biology departments, has a long history of distinguished scholarship and graduate and undergraduate education. As you'll read in our cover story, SMB and CVM faculty also have a long history of collaborative research. Now that we are together in one college we expect to foster even more of these collaborative efforts.

Veterinary Executive Report WSU College of Veterinary Medicine

Marcia Hill Gossard
Editor and writer,
mgossard@vetmed.wsu.edu

Charlie Powell
Co-editor and writer,
509-335-7073, cpowell@vetmed.wsu.edu

Contributing Writers

Dr. Bryan Slinker,
Dean of the college

Dr. Richard DeBowes,
Associate Dean,
Veterinary Development and
External Relations (VDER)

Lynne Haley,
Director of Development

Andrea Farmer,
Associate Director of Development

Veterinary Development and External Relations

WSU College of Veterinary Medicine
PO Box 647010
Pullman, WA 99164-7010
509-335-9515
www.vetmed.wsu.edu

Find us on Facebook, Twitter, and YouTube
by visiting our website.

The *Veterinary Executive Report* is published
three times a year by the College of Veterinary
Medicine at Washington State University.
Cover story photos by Henry Moore Jr. WSU/BCU
Issue # 24



10/10 132494



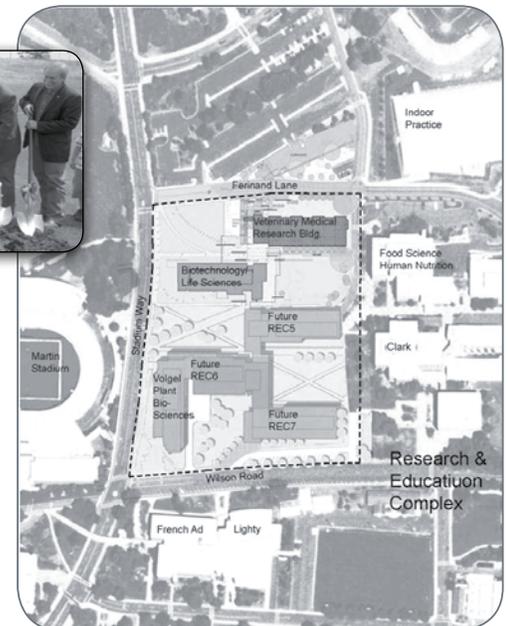
Global Animal Health Building ground breaking,
June 25, 2010

In August, we began construction on the new **Veterinary Medical Research Building**. This building, adjoining the newly completed (spring 2009) Biotechnology/Life Sciences building that houses SMB, will house the Veterinary and Comparative Anatomy, Pharmacology, and Physiology (VCAPP) department. Completion is expected at the end of 2012. Both these buildings, which together will house more than 60 CVM faculty members, are in the Research and Education Complex on the former site of the WSU tennis courts. The tennis courts moved to the east of Beasley coliseum on North Fairway Road.

Speaking of VCAPP, **Dr. Steve Simasko** has accepted a regular appointment as chair of that department. This appointment extends his term of service, which began as interim chair when I became dean. I am very pleased and grateful that Steve was willing to continue as a key member of our leadership team.

And that's only part of the exciting changes happening in your college—you'll have to wait until my next report to learn more. In the meantime, we invite you to come back to Pullman to see all these exciting changes for yourself. If you haven't been to visit us for awhile you may not recognize the facilities—however, you'll still recognize the quality and commitment of our faculty, staff, and students.

Go Cougs!



The new Veterinary Medical Research Building
is expected to be complete at the end of 2012.

The WSU Veterinary Teaching Hospital Has a New CT Scanner

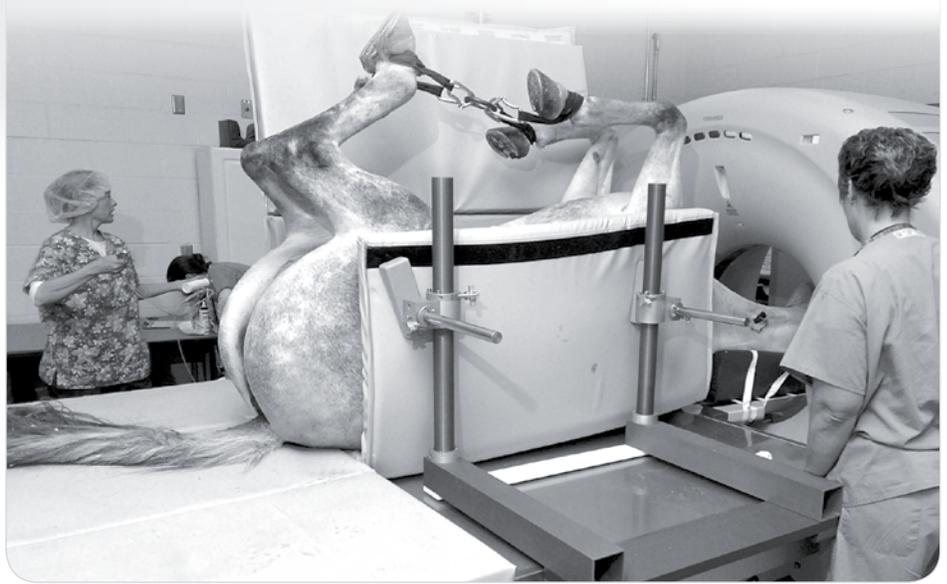
Thanks to Dear Friends of the College

Last spring, the WSU College of Veterinary Medicine installed a new, upgraded spiral computed tomography (CT) scanner for use in both small and large animals thanks to a very generous donation from Joseph T. Mendelson Sr. and his wife Barbara of Santa Barbara, California.

"We knew that a CT scanner would help everybody for a long time," said Joe Mendelson. "I've been around horses my whole life and the old CT scanner wasn't adequate for what the veterinarians are doing at WSU."

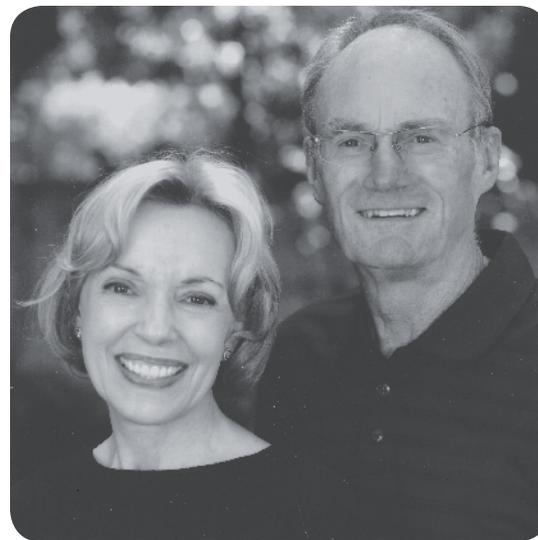
More than a decade ago, Joe and Barb Mendelson's dog "Scout" was treated by WSU alumnus Dr. John Oplinger ('79) at the Wickenburg Veterinary Clinic in Arizona. The Mendelsons were so grateful for the wonderful care Dr. Oplinger gave Scout, they wanted to give back to his alma mater. And they did just that. Their first gift to WSU in 1997 started a cancer fund in Scout's name, and they have been supporting the college ever since. In 2010, the Mendelsons made an extraordinary donation when they gave the college the funds to purchase a 16-slice spiral CT scanner.

Speed is one of the main features of the CT unit, and the imaging is produced in a variety of planes as well as in three-dimensional representations of anatomic structures. Small animals, such as cats and dogs, can often be imaged in the new CT scanner in seconds, in many cases without general anesthesia. With the faster speed, many more horses can also be scanned each year.



"Tari," a 10-year-old registered Quarterhorse mare, undergoes a spiral CT scan to examine a mass near one of her carotid arteries.

"Before the new CT, we only imaged a few horses a month, but now I would expect to do 10 times that," said Professor John Mattoon, a board certified veterinary radiologist and chief of WSU's diagnostic imaging section. "The new CT is truly state-of-the-art with brand new software that greatly improves its capabilities."



Barb and Joe Mendelson

Horses are too large to fit entirely in the CT scanner, so only the head, upper neck, and lower limbs are imaged. For smaller animals, the entire body can be scanned, and is especially useful for examining the lungs and abdomen.

For the Mendelsons, WSU has a special place in their hearts. Although neither attended WSU (Joe almost came here in the 1950s on a basketball scholarship) or have had a pet treated at the Veterinary Teaching Hospital, they have become loyal Cougars and dear friends of the college. Their current veterinarian in Santa Barbara, Dr. Ron Faoro ('81), is also a WSU alum.

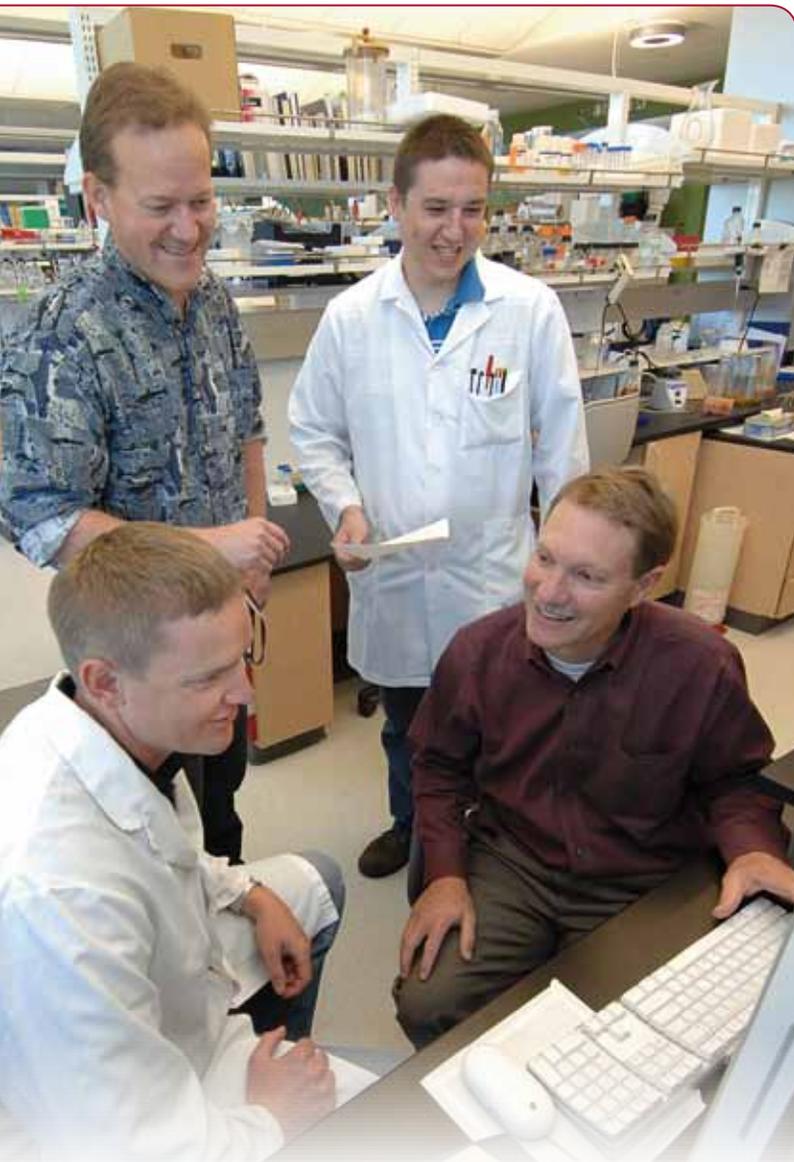
"Seems we have a lot of connections to WSU," said Joe Mendelson. We're glad they do.

WSU's School of Molecular Biosciences Joins the College of Veterinary Medicine

How collaboration is already helping to answer some of the most important questions in biomedical research.

For the past seven years **Dr. Mike Konkol**, professor in the School for Molecular Biosciences (SMB), and **Dr. Doug Call**, professor in the Department of Veterinary Microbiology and Pathology (VMP), have been working together to find answers about how to better control some of the most serious disease-causing bacteria found in our food supply.

"I believe the best work comes from collaboration," said Dr. Konkol. "The key for us is we complement each other well. We have overlapping interests, but different expertise and are willing to be flexible and accommodate each other. That's what makes a collaboration like ours last for so many years."



Dr. Doug Call (back left) and Dr. Mike Konkol (front right) work with doctoral students Dan Erwin (front left) and Jason Neal-McKinney (back right).

"Mike is one of the leading *Campylobacter* investigators in the world," said Dr. Call. "It is a privilege to work with him."

Drawing on each other's expertise, they study two food-borne pathogens—*Campylobacter jejuni* (*C. jejuni*) and *Vibrio parahaemolyticus* (*V. parahaemolyticus*)—both of which cause gastrointestinal infections with symptoms including diarrhea, nausea, and vomiting that can sometimes result in death. According to the Centers for Disease Control and Prevention (CDC), in the United States alone, food-borne pathogens cause an estimated 76 million illnesses and 5,000 deaths each year.

"I believe the best work comes from collaboration."

—Dr. Mike Konkol, WSU professor in the School of Molecular Biosciences

Dr. Konkol has been a leading expert on *C. jejuni* for nearly two decades. Often found in poultry, it is the most commonly reported bacterial cause of diarrhea worldwide. In the United States alone, the CDC estimates that more than 2 million cases of *Campylobacter* infection occur each year with approximately 100 deaths.

V. parahaemolyticus, one of Dr. Call's research focuses, is found in marine life and transferred to humans primarily through the consumption of raw or undercooked seafood. The CDC estimates roughly 4,500 cases of *V. parahaemolyticus* infection each year, but the number of cases reported is much lower because surveillance is complicated due to underreporting.

Although both these bacteria commonly found in our food supply can make humans sick, they do not normally cause disease in animals.

Around the lab, *Campylobacter jejuni* is often referred to by its easier-to-pronounce nickname "*Campy*."

"*Campy* causes disease in humans, but is normal flora in the gastrointestinal tract of chickens," explained Dr. Konkol. "Collaborating with Doug has allowed us to examine the differences in the responses of human and chicken cells to the bacteria."

By using different types of cells they are able to better understand why humans, but not chickens, develop disease from the bacteria. And knowing that may one day provide an answer that will help prevent human illness and even death.

Dr. Konkol believes a good understanding of basic science is necessary for finding solutions to real-world problems. A year and a half ago, he also began collaborating with **Dr. Steve Simasko**, professor and chair of the Department of Veterinary and Comparative Anatomy, Pharmacology, and Physiology (VCAPP). The two have been working to better understand neuro-immune interactions in the gastrointestinal tract related to the vagus nerve, which travels from the brain all the way to the colon.



Dr. Steve Simasko and Dr. Mike Konkel research the cause of inflammatory responses in the digestive system.

“It is a project that neither of us could do alone,” said Dr. Simasko. “Neither of us has the expertise to do this research without the other’s training and background. That’s the magic of collaboration.”

With better understanding about how infection activates the vagus nerve—and how the vagus controls inflammation—it could lead to clues about inflammatory bowel diseases, such as Crohn’s disease, which are currently not well controlled with standard treatment.

Over the years, these collaborative efforts have also greatly benefitted graduate student education and postdoctoral research. For instance, experiments can be designed to answer questions from different perspectives, many of which would not have been able to be conducted otherwise.

“Working collaboratively exposes you to research topics and ideas that you may not encounter in your own lab,” said Jason Neal-McKinney, a doctoral candidate in the SMB.

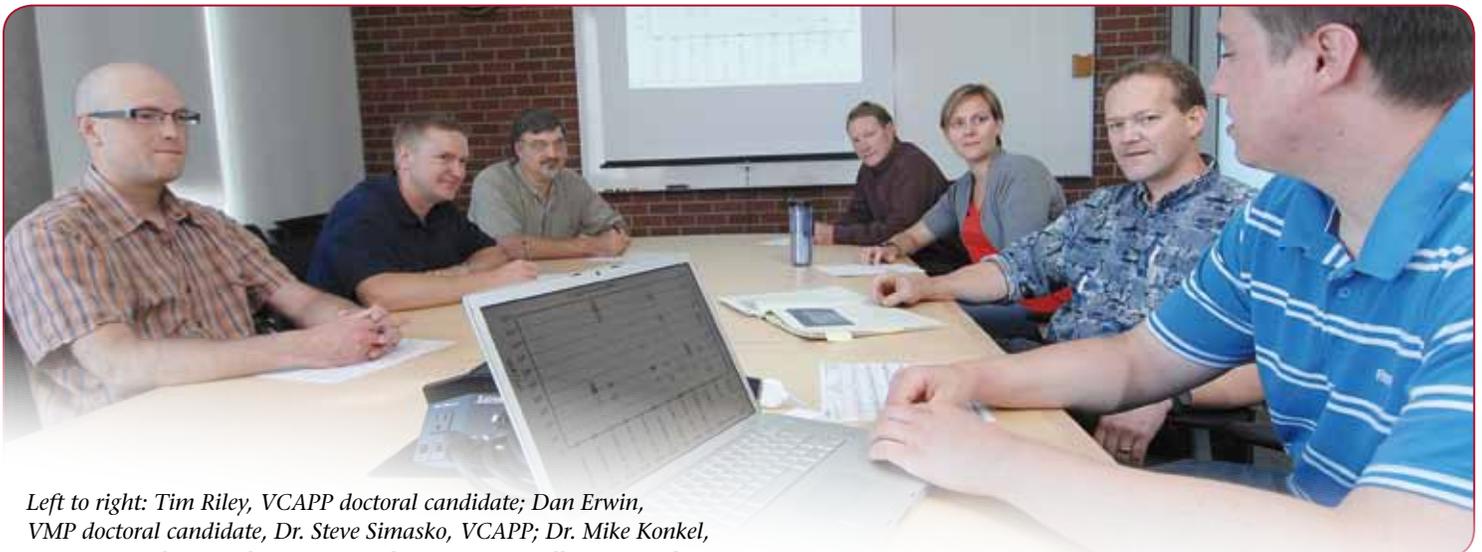
Collaboration between neuroscience, microbiology, and immunology helps to train students to be more competitive as they leave school to do their own research.

“I feel that these types of collaborations are vital for the advancement of my career as a neuroscientist,” said Tim Riley, a doctoral candidate in the VCAPP department.

Since the School of Molecular Biosciences joined the college on July 1, 2010, it has created a larger group of biomedical research scientists and a greater pool of resources. Once the new Veterinary Medical Research Building, which will be adjoined to the Biotechnology/Life Sciences building that houses the School of Molecular Biosciences, is complete at the end of 2012, collaborative efforts between VCAPP and SMB will be even easier.

“Now that we are all on the same team, it further reduces barriers to collaboration. And the proximity of the building will also help,” said Dr. Simasko.

“Combining resources with veterinary medicine will make us more competitive nationally,” said Dr. Konkel. “Through collaboration I believe answers to some of the most important questions in biomedical research will be found.”



Left to right: Tim Riley, VCAPP doctoral candidate; Dan Erwin, VMP doctoral candidate, Dr. Steve Simasko, VCAPP; Dr. Mike Konkel, SMB; Dr. Daelynn Buelow, SMB postdoc; Dr. Doug Call, VMP; and Jason Neal-McKinney, SMB doctoral candidate.

From the Office of Development and External Relations



*Dr. Richard DeBowes,
Associate Dean of
Veterinary Development
and External Relations*

This year three of our most accomplished faculty members have been awarded distinguished professorships thanks to generous donors who share our commitment and dedication to animal well-being. **Dr. Douglas Call**, professor in the Department of Veterinary Microbiology and Pathology, is the first recipient of the Caro-

line Engle Distinguished Professorship in Research on Infectious Diseases. Dr. Call is a nationally recognized scholar who, in addition to his work on antibiotic resistance, has an active research program in food- and water-borne diseases and salmonid aquaculture. He was appointed for a four-year term.

Dr. Steve Hines has been reappointed for a second four-year term as the Berger Keatts Distinguished Professor for excellence in teaching. Dr. Hines, a board-certified pathologist, created the innovative clinical simulations known as the Diagnostic Challenges with his colleague **Dr. Guy Palmer** in 1991. The nationally recognized program gives



Dr. Douglas Call



Dr. Steve Hines



Dr. Robert Schneider

veterinary students an opportunity to apply their developing knowledge and problem solving skills to real-world, clinical cases. **Dr. Robert Schneider** has been appointed for a second five-year term as the Robert B. McEachern Distinguished Professor in Equine Medicine. Dr. Schneider, a board-certified equine surgeon, specializes in equine orthopedic sports medicine and lameness diagnosis and treatment. The equine sports medicine program brings new hope for more horses to return to competitive activities.

Distinguished professorships help the college attract and maintain outstanding veterinary clinicians, educators, and researchers. We are grateful to those who, through their extraordinary generosity, have made such a difference at our College of Veterinary Medicine.

The Donors

Dr. Caroline Engle ('67 DVM) established the Distinguished Professorship in Research on Infectious Diseases to advance infectious disease research. Her research on feline leukemia formed the foundation for a cats-only clinical practice she established in Vancouver, Washington.

Dr. Berger Keatts ('50 DVM) created the Berger Keatts Distinguished Professorship in honor of Dr. John McCoy, former dean of the college, who inspired him to become a veterinarian

more than 50 years ago. Dr. Keatts was humble about his gift, but he realized it serves as an example for what others might be able to do for WSU.

Robert B. McEachern ('37 BA) of Redmond, Washington, served on the WSU Board of Regents from 1981 to 1988 and served as its president. But it was his lifelong love of horses that inspired him to start the Robert B. McEachern Distinguished Professorship in Equine Medicine.

How to give to WSU's College of Veterinary Medicine

What is your passion? From small animal medicine to helping students, each year hundreds of alumni and friends of the college enhance teaching, research, and outreach programs through private philanthropy and charitable donations.

Generous gifts by individuals and organizations provide scholarships and fellowships, state-of-the-art equipment for teaching and research, funding for student clubs, and a variety of other important programs.

*See what opportunities are available at
www.vetmed.wsu.edu/Giving.*

Awards and Achievements



Dr. David Prieur, chair and professor in Veterinary Microbiology and Pathology (VMP), received the 2010 Distinguished Alumnus Award from Michigan State University at the MSU CVM

commencement ceremonies on May 7, 2010. Dr. Prieur earned his doctorate from WSU in 1971. He has been a faculty member since 1974 and chair of the VMP department since 1987.



Dr. Steve Simasko has accepted a regular appointment as chair of the Department of Veterinary and Comparative Anatomy, Pharmacology, and Physiology (VCAPP). The appointment extends his term of

service, which began as interim chair when Dr. Bryan Slinker left the position to become dean of the college.



Dr. Don Knowles, professor in Veterinary Microbiology and Pathology (VMP), received the Dr. Erwin Small Distinguished Alumni Award from the University of Illinois on September 9, 2010. After earning his DVM

in 1982, Dr. Knowles came to WSU as a doctoral graduate student. In 1986 he was appointed a veterinary medical officer in the Animal Disease Research Unit (ADRU) of the Agriculture Research Service (ARS) of the USDA in Pullman. He is also currently the ADRU research leader.

College of Veterinary Medicine Distinguished Alumni and Outstanding Service Awards

Call for Nominations

Deadline: February 4, 2011

To learn more about the awards, please visit

www.vetmed.wsu.edu/Awards.



*Lynne Haley,
Director of Development*

Your Gifts in Action

Students can now learn from ultrasounds, radiographs (or x-rays), and other procedures more easily thanks to a new large screen TV monitor from a generous friend of the college. Before the WSU cardiology group received the monitor, veterinary students crowded around a small computer screen or viewing

window. Now students can view procedures more easily and more students can watch them at the same time. Students will also be able to watch medical procedures, such as fluoroscopy, in real time.

"Students used to have to watch live procedures crowded around a little window," said Dr. Brian Maran, a first year WSU veterinary cardiology resident. "With the new TV monitor, more students can watch and it is easier for them to see what is happening."

The new TV monitor also makes it easier to put up teaching materials such as Web pages, photos, or an ECG (electrocardiogram) of a teaching case. Teaching cases are generally typical cases of classic conditions that all students need to learn.



"It is great for teaching," said Dr. Lynne Nelson, a WSU veterinary cardiologist. "With fluoroscopy it is not practical to have six students in the room at the same time observing a surgery. Now we can have one student in the room and five students can view the surgical procedure on the monitor."

"It is nice set-up for the students because we can watch and don't all have to be standing around the patient," said DVM student, Brynne Lyle. "It is especially good for radiographs because before it was difficult to see. With the new monitor it is easy to see."

Left to right: Dr. Brian Maran, cardiology resident; DVM students Jackie Parker '12, Shana O'Donnell '10, and Brynne Lyle '10.



Look for a WSU Alumni, Friends, and Students Gathering
at these Upcoming Events!



Mark your calendars

Important dates to remember:

- December 4–8** AAEP in Baltimore, Maryland
- December 6** Alumni reception at AAEP in Baltimore, Maryland
- February 4** CVM Distinguished Alumni Awards nomination deadline
- February 20–24** Western Veterinary Conference, Las Vegas, Nevada
- February 21** Alumni reception at the Western Veterinary Conference, Las Vegas, Nevada
- April 9** Veterinary Teaching Hospital Open House in Pullman
- April 27–28** Golden and Diamond Grad Reunion

CE courses at WSU and online are offered year round; visit www.vetmed.wsu.edu/CE for more information.

For more information about upcoming events visit www.vetmed.wsu.edu/Events.