

# On Call



SCHOOL OF  
**Veterinary Medicine**  
UNIVERSITY OF WISCONSIN-MADISON

A NEWSLETTER FOR FRIENDS OF THE UNIVERSITY OF WISCONSIN-MADISON SCHOOL OF VETERINARY MEDICINE

## WHAT'S INSIDE?



### Second Chance

Specialized treatment at UWVC puts horse back in competition

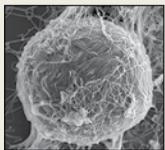


### Driving to a Dream

Recent grad, mother of five, logs 120,000 miles in pursuit of DVM

### Horse Sense

Research suggests changes in evaluation of equine knee joint injury



### Fighting Ebola

SVM professor and team show Ebola vaccine to be safe, effective in primates

### Eye Toward Giving

Emeritus professor and spouse fund ophthalmology professorship

## CONNECT WITH US



University of Wisconsin School of Veterinary Medicine  
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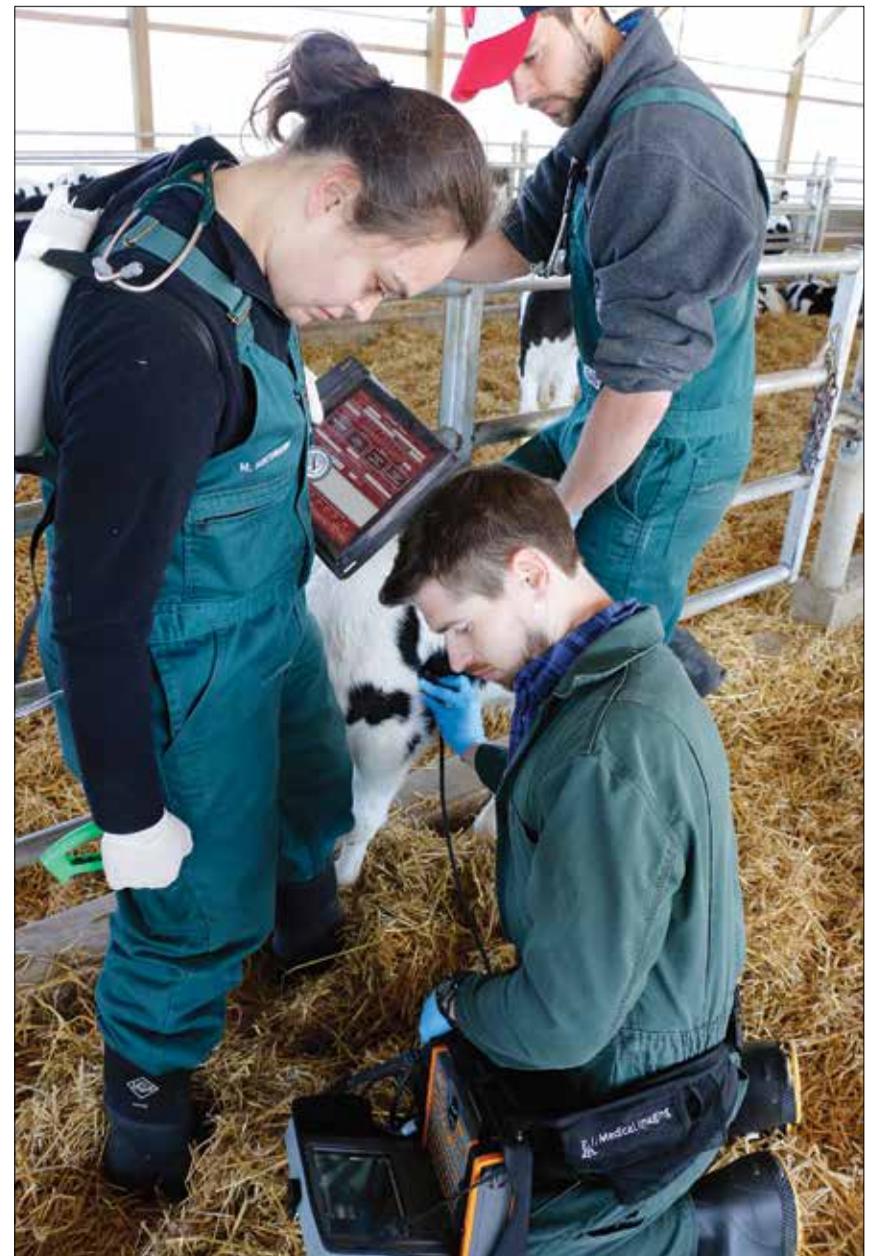
## Tablet Technology Enhances Dairy Farming, Education

For many people, the word “agriculture” conjures up the classic depiction of the American farmer: a weather-beaten fellow clad in faded overalls and a straw hat, red handkerchief dangling from his pocket. But this Rockwellian image of the old homesteader has been largely outdated for half a century or more. Farms continue to grow larger, increasingly complex, and more dependent on science and technology, from global positioning systems to remote control capabilities for highly sophisticated equipment.

Like agriculture in general, the dairy industry continues to advance, and faculty, staff, and students at the University of Wisconsin School of Veterinary Medicine (SVM) are making major contributions to its evolution. In fact, thanks to their work, when the iconic image of the American farmer is finally updated, the old red handkerchief will likely be replaced by a shiny new Apple iPad.

The SVM’s Food Animal Production Medicine (FAPM) program has developed eight unique iPad applications to help meet the needs of today’s dairy farmers. Available in the iTunes store, the apps provide a wide variety of assistance, from guidance on planning freestall construction that will optimize cow comfort and milk production to step-by-step instructions on assessing the respiratory health of calves.

“These are tools that can be used to make evaluating different aspects of dairy farming much easier,” says Nigel Cook, professor and chair in the Department



NICK HAWKINS

*Veterinary medical student Logan Funk uses a portable ultrasound system to gauge the respiratory health of a calf during a clinical rotation farm visit while fellow student Marge Koosman records scores on the Calf Health Scorer app. Student Race Price keeps the calf still and calm during the process.*

of Medical Sciences. “For most of these apps, we’ve taken proven, pen-and-paper systems, which our faculty previously developed, and translated them into a portable, digital format.”

In addition to eliminating the hassles of paperwork, the major advantages of the apps include instant feedback on various measurements, immediate data

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## SVM Ranked Highly for DVM, Graduate Education

U.S. News and World Report has again recognized the UW School of Veterinary Medicine (SVM) as a top leader in the field, ranking the school fifth among its peer institutions in the 2016 edition of "Best Graduate Schools."

In addition, the SVM's Comparative Biomedical Sciences graduate program ranked in the top 10 for the veterinary medical sciences discipline in the 2013–14 academic year, according to the Academic Analytics Database. This is the third year in a row that the program has achieved this distinction.

## Graf Receives Excellence Award



BRUCE RICHTER

**Julie Graf**, whose service to the UW School of Veterinary Medicine spans three decades, has received the Martha Casey Award for Dedication

to Excellence from the University of Wisconsin–Madison. The annual award recognizes one UW staff member, often termed an "unsung hero," who demonstrates consistent dedication to outstanding day-to-day job performance.

As administrator for the Department of Pathobiological Sciences, where she has served since its founding in 1983, Graf is a vital resource for more than 20 faculty and 100 academic staff, residents, trainees, and graduate students. Her responsibilities include budgetary and personnel administration.

"The array of duties that Julie performs, and the aplomb with which she does so, are extraordinary," says founding department chair Ron Schultz. "She is the 'glue' that makes the department an effective, efficient, and productive unit."

More SVM news at [www.vetmed.wisc.edu/news](http://www.vetmed.wisc.edu/news).

## PET TIPS

### Summer Tip for Dog Owners

In those dog days of summer, keep your pup's exercise to cooler times of day. Breeds with short snouts, like bulldogs and Boston terriers, need to be especially careful since they have a harder time panting to cool themselves down.

## A MESSAGE FROM THE DEAN

### Great Things Are Happening

This is always an exciting time of the year. In a couple of weeks, the Class of 2019 will arrive for orientation. We always look forward to the latest cohort of our incoming students and the four years they will spend learning about this amazing profession, ultimately serving as the next generation of leaders in veterinary medicine.

While we look forward to their arrival, I want to acknowledge the sad news that two of our alumni have passed away in the last six months. They include Kevin Ruch of the Class of 1988 and Juan Carlos Robles-Emanueli of the Class of 2005. Our hearts go out to both Kevin's and Juan Carlos' families and loved ones.

I am pleased to announce that U.S. News and World Report ranked the School of Veterinary Medicine fifth in the nation among schools of veterinary medicine, and our Comparative



BRUCE RICHTER

Mark D. Markel

Biomedical Sciences graduate program continues to rank in the top 10 among its peers in the United States. These rankings underscore the excellence of our faculty and staff.

And there's still more to highlight.

In spring, Julie Graf, administrator for the Department of Pathobiological Sciences, received the Martha Casey Award for Dedication to Excellence.

Albee Messing, professor in the Department of Comparative Biosciences, has been appointed as Director of the Waisman Center. One of our alumni, Ryan Wallace, received the prestigious James Steele Veterinary Public Health Award from the Centers for Disease Control and Prevention. Ian Duncan, a faculty member in the Department of Medical Sciences, has earned the Lifetime Excellence in Research Award from the American Veterinary Medical Association.

Each of these awards is continued evidence of the outstanding group of individuals who work, teach, and learn in the School of Veterinary Medicine. Each day I am impressed with the dedication and passion that everyone in this building demonstrates and lives by. Enjoy this issue of *On Call* and the remainder of your summer.

## New Faculty



**Leticia Reyes, DVM, PhD**, has joined the Department of Pathobiological Sciences as assistant professor of bacteriology.

She earned both her veterinary medical degree and her doctorate at the University of Florida where she also completed residency training in small animal medicine and laboratory animal medicine. Before coming to the SVM, she was an attending veterinarian, a postdoctoral fellow, and, most recently, research assistant professor in the Departments of Infectious Disease and Pathology and Oral Biology, all at the University of Florida. Her research centers on comparative medicine with a primary focus on human microbial infectious diseases of national or worldwide importance. She worked in small animal practice before returning to academia and maintains a clinician's perspective when teaching veterinary medical students.



**Lisa M. Arendt, DVM, PhD**, has joined the Department of Comparative Biosciences as an assistant professor and will teach in the histology course.

She earned both her veterinary medical degree and her doctorate in cellular and molecular

biology from the UW School of Veterinary Medicine and completed post-doctoral training at Tufts University. Most recently, she served as a research assistant professor in the Department of Developmental, Molecular, and Chemical Biology at Tufts University. Her research focuses on understanding how obesity promotes breast cancer and metastasis.

## Weston Orr Joins Board of Visitors

SARAH WESTON ORR



The UW School of Veterinary Medicine welcomes **Sarah Weston Orr** to its Board of Visitors, the external advisory body for the school. Members of the board have attained prominence in their respective careers and are chosen because of their value in providing sound advice and counsel to the dean.

Sarah Weston Orr grew up in Madison, Wis., and attended St. George's School in Newport, R.I., and the University of Wisconsin–Madison. A resident of Lake Forest, Ill., she keeps busy with her family of three boys, husband San, two horses, two dogs, two cats, and three chickens. She has been a volunteer for the Animal Medical Center in New York City, the Anti-Cruelty Society in Chicago, and the Illinois Shorthair Rescue Association, and she is currently in the process of building E. Holland Stables, a dedicated hunter-jumper equestrian facility serving the north shore of Chicago.

## TABLET APP from page 1

uploads, long-term data storage, and analytical functionality.

“All of this can lead to greater efficiency and cost savings for dairy farms,” says Tom Bennett, a senior information processing consultant at the SVM who played a lead role in developing the apps.

Karl Burgi of Sure Step Consulting International, LLC, uses several of the apps when working with clients at dairy farms across the globe and as part of the hoof-trimming services he provides in south central Wisconsin. He says they have led to improvements on the farms he visits.

“Often you just have a feeling of what’s wrong on a farm, but the apps back it up with science,” says Burgi. “They help you

educate clients by showing them the science, and they help you give recommendations to dairy producers more easily.”

The utility of the apps in client education is fitting because they began as teaching tools, and they continue to play a major role at the SVM in preparing the next generation of food animal veterinarians. It all started with a grant from the UW–Madison Educational Innovation initiative. The funds supported the development of teaching modules for clinical rotations in food animal production medicine for fourth-year students, as well as the purchase of 15 tablets for a mobile FAPM learning lab.

“The apps were the next logical step,” says Cook. “Now

students use them for learning in the classroom and out in the field during farm visits. But we also wanted these apps to be available commercially for anyone who wants to use them.”

Since first launching in September 2014, FAPM’s apps have logged nearly 900 downloads in 40 countries on six continents. Proceeds from purchases support ongoing app development. Two additional apps – one for assessing and preventing lameness in cows and another for identifying and predicting an infectious hoof disease called digital dermatitis – have been developed in partnership with Zinpro Corporation, which has taken over their management.

*Nik Hawkins*

## Messing Named Director of Waisman Center



**Albee Messing**, a professor of comparative biosciences at the UW School of Veterinary Medicine and an international leader in research on

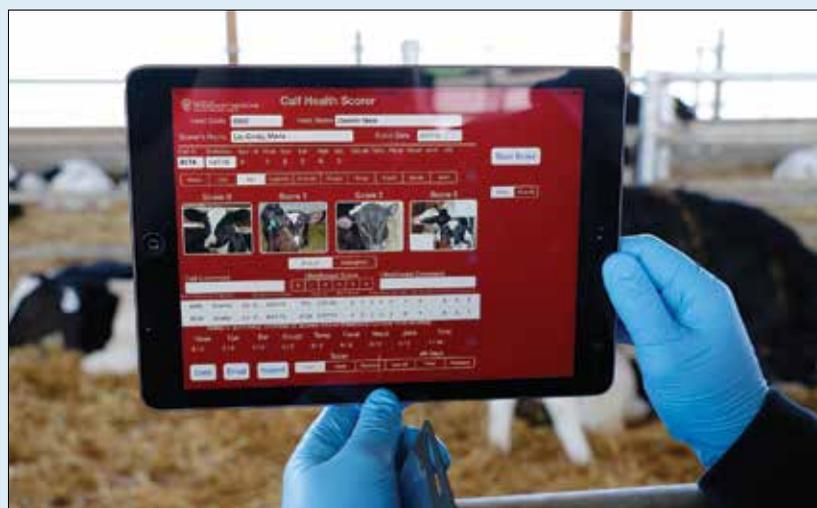
Alexander disease, has been named director of the Waisman Center. He will lead the center’s efforts to advance research, clinical care, training, and outreach related to developmental disabilities and neurodegenerative diseases.

Messing will continue research on Alexander disease, a progressive and usually fatal neurological disorder in which abnormal aggregates known as Rosenthal fibers occur in astrocytes of the brain and spinal cord. Messing and his colleagues discovered the genetic basis for Alexander disease in 2001, which highlighted the fundamental role of astrocytes in neurological disease.

## The Apps: A Closer Look

Available through the SVM iTunes page:

- **Calf Health Scorer** – Utilizes a graphical interface to evaluate calf health based on a scoring system developed by Sheila McGuirk, professor of large animal internal medicine and food animal production medicine at the SVM.
- **Freestall Assessor** – Uses a pictorial guide to aid in evaluating the dimensions and construction of a dairy’s freestall design. The intent is to maximize cow comfort and, subsequently, milk production.
- **Group Pen Respiratory Scorer** – Integrates a respiratory scoring method developed by McGuirk and Theresa Ollivett, assistant professor of food animal production medicine, as well as a pictorial guide of various respiratory symptoms, to aid in evaluating young dairy stock in group pens.
- **Johne’s Risk Assessor** – Converts a nationally standardized system into app form to assist veterinarians and their clients with the implementation of a risk assessment and management plan designed to prevent the spread of Johne’s disease, a fatal gastrointestinal infection also known as paratuberculosis.



*An iPad loaded with the Calf Health Scorer app.*

- **Locomotion Scorer** – Offers multiple systems for scoring dairy cows for degrees of lameness. Includes photos, videos, and descriptions of lameness categories to help with classification. Also iPhone compatible.
- **Preg Calculator** – Developed by Harry Momont, clinical associate professor and head of the SVM’s Large Animal Hospital, it allows herd managers to input a wide variety of reproductive parameters, such as herd size and calving intervals, and then calculate the number of pregnancies needed per interval to maintain the herd. Also iPhone compatible.

Available through the Zinpro Corporation iTunes page:

- **DD Check** – Helps dairy producers quickly identify, record, and monitor digital dermatitis lesions, and uses a sophisticated statistical model developed by Dörte Döpfer, associate professor of epidemiology, to help predict potential outbreaks of the hoof disease.
- **First Step** – Developed in conjunction with Nigel Cook, professor and chair in the Department of Medical Sciences, provides a comprehensive assessment of lameness risk factors for dairy farms.

## SVM IN THE NEWS



### Canine Influenza

A recent outbreak of canine influenza that has affected thousands of dogs primarily in the Midwest, but in other states as well, has kept experts at the UW School of Veterinary Medicine (SVM) very busy, from treating dog flu cases to offering vaccination clinics to providing advice and guidance to shelters, pet owners, and the media.

Our faculty were featured by a wide variety of news outlets, including The Associated Press, the Chicago Tribune, the Chicago Sun Times, USA Today, the Wisconsin State Journal, Wisconsin Public Radio, and several local television network affiliates.

To read more news coverage of the SVM, visit the “In the News” section of the SVM home page at [www.vetmed.wisc.edu](http://www.vetmed.wisc.edu).

## A Second Chance: UWVC Treatment Puts Rodeo Royalty Back in Ring

**B**arrel racing. Reining. Team penning. English pleasure. Cowboy mounted shooting. Jumping.

Name the equine sport and it's very likely that Chance, a 16-year-old American Quarter Horse gelding, has competed in it. This past summer he even participated in the Miss Rodeo Wisconsin pageant with his owner, Lydia Berg, helping her secure the 2015 title and ambassador position using her public relations and horsemanship skills.

However, Chance's competitive streak nearly came to an end last July when he and another New Berlin, Wis., stablemate fell ill. Chance was suffering from diarrhea and had become lethargic. When his temperature continued to spike, both sick horses were transported to UW Veterinary Care (UWVC) for emergency treatment.

UWVC veterinarians placed the horses in isolation and started tests to determine the cause of their symptoms. Results showed that the horses were suffering from Potomac horse fever (PHF), an aquatic insect-born infection that is common in this area with the onset of warm weather. According to UWVC Large Animal Medicine Resident Dr. Sarah Raabis,

### IN MEMORIAM

The UW School of Veterinary Medicine regrets to announce the recent loss of two alumni.

**Kevin Ruch**, Class of 1988, passed away on April 6, 2015. Kevin co-owned Elmbrook Veterinary Clinic and is survived by his wife, Beverlee, and two sons, Tyler and Samuel.

**Juan Carlos Robles-Emanuel**, Class of 2005, passed away on April 29, 2015. Juan Carlos was an assistant professor in the Veterinary Physiology and Pharmacology Department at Texas A&M University. He is survived by his wife, Heather Wilson-Robles, and two sons, Noah and Liam.



LYDIA BERG

treatment for PHF, typically done in the field, has a fair to good response if caught early.

With intensive care measures like intravenous fluid treatments, plasma transfusions, antibiotics, probiotic supplements, and a specific diet regimen, Chance gradually improved from disease-related ailments. However, his breathing worsened and a previously undiagnosed chronic cough, later revealed as inflammatory airway disease, hindered his recovery. Tests revealed that Chance's respiratory condition had progressed into *Actinobacillus equuli* bronchointerstitial pneumonia, a bacterial lung infection.

Using a specific formula developed by Dr. Benjamin J. Darien, associate professor and head of large animal internal medicine, Chance received a nebulization treatment of Ceragyn™, a novel antimicrobial peptide shown to be effective against viruses, a broad range of antibiotic-resistant infections, and fungi. Chance's breathing and respiratory function improved over a 48-hour period.



LYDIA BERG

Above: Chance, a 16-year-old American Quarter Horse, visited UW Veterinary Care in July 2014. After innovative treatments for a lung infection, he is in good health and back in the competitive ring. Here, he and owner Lydia Berg compete at the Open Spring Speed/Fun Show in Washington County in May 2015. Left: Chance underwent emergency medical treatment, including intravenous fluids and plasma transfusions.

Darien's lab later confirmed that Ceragyn™ was effective in killing this specific variety of bacteria.

"With appropriate treatment for his PHF and the innovative nebulization treatments, Chance left UW Veterinary Care in good health with prospects of returning to the competitive ring," says Raabis. "The ability to improve Chance's respiratory function and eliminate infection without administering antibiotics that may harm his gastrointestinal microflora was paramount to Chance's positive outcome."

According to Berg, it wasn't long before she and Chance were back to competing. At the Open Spring Speed/Fun Show in Washington County in mid-May, they ran in the barrel racing, jackpot barrel race, pole bending, and jackpot pole bending events, running the fastest time in each one.

"He continues to show drive, strength, passion, and more spirit than ever before," says Berg. "I would return to UW Veterinary Care in a heartbeat if necessary. I was blown away by the attention and love the faculty and staff gave Chance."

Jane Pruhs

# Entrepreneurialism, Donor Match Create Ocular Pathology Professorship

In the field of comparative ocular veterinary pathology, he has literally written the book.

Authoring more than 20 book chapters, nearly 300 research papers, and 400 published abstracts, Richard Dubielzig, a professor emeritus of pathology at the UW School of Veterinary Medicine (SVM), has played a seminal role in advancing veterinary ophthalmology. Perhaps his most significant contribution to the field was co-authoring *Veterinary Ocular Pathology: A Comparative Review* (2010), an indispensable guide for diagnosing eye diseases in animals.

Now, thanks to a recent pledge from Dubielzig and his wife, Doris, his legacy will continue with the Richard R. Dubielzig Professorship for Comparative Ocular Pathology. The new professorship will support the director of the Comparative Ocular Pathology Laboratory of Wisconsin (COPLOW), a mail-in ocular histopathology service and information bank that Dubielzig founded in 1983.

The Dubielzigs' decision to fund COPLOW was easy for them. And how to structure their gift—an annual cash donation or endowment—was something they were contemplating last November when Doris read of John and Tashia Morgridge's \$100 million gift to fund endowed professorships, chairs, and distinguished chairs at the University of Wisconsin–Madison. The Dubielzigs used the Morgridge's one-to-one matching gift to establish the \$1 million endowed professorship.

To fund their \$500,000 pledge, Dubielzig employed the same entrepreneurial spirit that has historically helped support COPLOW, a laboratory financed exclusively by service fees and corporate-sponsored consulting fees. Dubielzig had always donated his revenue from Ocular



NIK HAWKINS

*Professor Emeritus Richard Dubielzig and his wife, Doris, sit near the entrance to the Veterinary Medicine Building. Their pledge of \$500,000, along with matching funds from UW–Madison alumni donors John and Tashia Morgridge, will fund the Richard R. Dubielzig Professorship for Comparative Ocular Pathology.*

Services on Demand (OSOD), a vision scientist consulting consortium that Dubielzig and three other scientists founded. In 2013, Dubielzig sold his interest in OSOD. A year later, he decided to use the entire seven-year buyout to fund the new professorship.

When the SVM opened in 1983, Dubielzig returned to Madison, his hometown, and joined the new faculty. “Maybe I was lucky,” says Dubielzig. “The Department of Pathobiological Sciences is a fantastic department that produces quality research and builds collaborations that are unique to the University of Wisconsin. I don’t know if that is available at every university.”

Those collaborations, ultimately leading to OSOD’s creation, took root in 1993 when UW vision scientists founded Comparative Ophthalmic Research Laboratories (CORL), a group that provides vision science expertise to companies developing new products. In 2001, a relationship formed with Madison-based Covance, Inc.,

and eight years later, OSOD was founded as the commercial entity to help pharmaceutical industries meet their development goals.

Dubielzig credits Chris Murphy, currently professor of comparative ophthalmology at the University of California, Davis, for the vision and the business savvy that made it all happen. Murphy was a professor of ophthalmology at the SVM when the initial business plans were developed and CORL and OSOD were created.

Today, that same vision scientist network has welcomed another member with COPLOW’s new director, Leandro Teixeira, who has large plans for the laboratory’s future.

“You don’t need much time around Dick and Doris to realize that generosity is an integral part of their life, and that fact is reflected once again in their gift to COPLOW,” says Teixeira, assistant professor of pathobiological sciences. “This professorship will allow us to redirect funds to invest in new areas of research, teaching, and training students and veterinarians, and improving our diagnostic service to the veterinary community even more.”

For the Dubielzigs, their passion for vision science continues in retirement. Doris, a former Madison Metropolitan School District (MMSD) science teacher, volunteers with the McPherson Eye Research Institute, connecting its experts with MMSD faculty, staff, and students.

Meanwhile, her husband continues to consult and enjoys a new honor truly fitting for a comparative ocular pathologist—he recently became the namesake for a newly identified species of tiny round worm (see sidebar below) that infests the head and eyes of Ball Pythons called *Serpentirhabdias dubielzigi*.

*Jane Pruhs*

## Worm’s Eye View

CHRISTOPH MANS



In addition to funding a named professorship, Richard Dubielzig recently became the namesake for a newly identified species of tiny round worm that infests the head and eyes of Ball Pythons, *Serpentirhabdias dubielzigi*. Read about how our faculty and staff collaborated with researchers at Cornell University on this fascinating project at [www.vetmed.wisc.edu/worm-species-named-for-professor-emeritus](http://www.vetmed.wisc.edu/worm-species-named-for-professor-emeritus).

## **A** Research

### Study Suggests Additional Diagnostics Can Help Evaluate Equine Joint Condition

A recent study led by a faculty researcher from the UW School of Veterinary Medicine (SVM) suggests that veterinarians can alter how they evaluate horses with a particular joint condition in order to accurately determine and treat the underlying cause.

Although it's not a common malady, some horses will experience swelling behind the carpus—often referred to as the “knee” joint of the equine forelimb but actually more akin to the human wrist. This condition, called carpal sheath effusion, can be a big deal for active horses because it usually points to underlying bone, tendon, or ligament damage that hinders movement and performance.

#### **Fund Supports 12 New Research Projects to Improve Companion Animal Health**

Faculty at the UW School of Veterinary Medicine will launch 12 new research projects aimed at improving animal health care thanks to grants from the school's Companion Animal Fund. More than \$110,000 in grants were distributed this year, the largest amount given out in recent years. The funds will help SVM researchers test a new glaucoma treatment for cats, explore novel therapies for cancer in dogs, evaluate how the use of hoods to calm red-tail hawks can impact digestion, investigate genetic factors linked to canine cruciate ligament ruptures, and more. More at [www.vetmed.wisc.edu/caf-research-grants-2015](http://www.vetmed.wisc.edu/caf-research-grants-2015).



NIK HAWKINS



RONALD L. GENOVESE

*Findings from a recent SVM study suggest that ultrasonographic evaluation of horses with carpal sheath effusion, as shown here, should include additional parts of the forelimb.*

Diagnosing the cause of carpal sheath effusion and predicting how well it will heal are notoriously frustrating endeavors for veterinarians. While the bulk of published research points toward bone injuries as the root of the problem, clinical observations seem to point in a different direction, according to Ronald Genovese, an equine veterinary practitioner for more than 50 years, and Joan Jorgensen, a boarded equine internal medicine veterinarian and associate professor of comparative biosciences at the SVM.

#### **Ebola Whole Virus Vaccine Shown Effective, Safe in Primates**

An Ebola whole virus vaccine, constructed using a novel experimental platform, has been shown to effectively protect monkeys exposed to the often fatal virus.

The vaccine, described recently in the journal *Science*, was developed by a group led by Yoshihiro Kawaoka, a UW School of Veterinary Medicine expert on avian influenza, Ebola, and other viruses of medical importance. It differs from other Ebola vaccines because, as an inactivated whole virus vaccine, it primes the host immune system with the full complement of Ebola viral proteins and genes, potentially conferring greater protection.

The new vaccine has not been tested in people. However, the successful tests in non-human primates conducted at the National Institutes of

Health (NIH) Rocky Mountain Laboratories, a biosafety level 4 facility in Hamilton, Montana, may prompt further tests and possibly clinical trials. More at [www.vetmed.wisc.edu/ebola-whole-virus-vaccine](http://www.vetmed.wisc.edu/ebola-whole-virus-vaccine).

“Our overall impression from treating cases was that carpal sheath effusion was most commonly caused by injuries to soft tissue—tendons and ligaments, not bone—and that the injuries extended the full length of the forelimb, not just at or below the carpus,” says Jorgensen. “But no prior study has really explored the incidence of the different injuries that are suspected to cause or be associated with carpal sheath effusion.”

Observations also led Jorgensen and Genovese to believe that older, less athletic horses were more at risk for the condition. If their hunches turned out to be true, it would mean veterinarians could make significant changes in how they evaluate horses with carpal sheath effusion. So they enlisted the help of Dörte Döpfer, associate professor of epidemiology at the SVM, and Matthew Stewart, associate professor in the College of Veterinary Medicine at the University of Illinois, to put their theories to the test.

The team gathered and analyzed clinical records, radiographs, and ultrasonographic findings for 121 horses—patients at Cleveland Equine Clinic, where

Genovese now practices, and the former Randall Equine Veterinary Group—representing virtually every equine breed, discipline, and age. The findings supported their clinical impressions, opening the door to new ways that will help equine practitioners understand and treat this challenging injury.

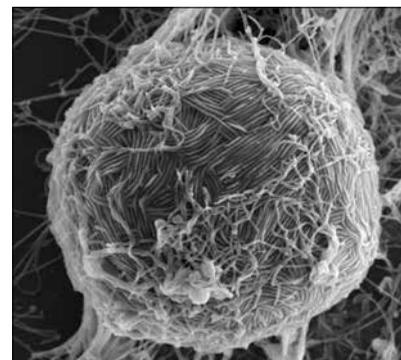
Bone injuries were associated with carpal sheath effusion in only 8 percent of cases in the study, suggesting that the current scientific literature vastly over-represents underlying bone abnormalities. Instead, as they suspected, more than 90 percent of the horses with carpal sheath effusion suffered from soft tissue damage. In addition, most cases involved complex injuries to multiple structures. The worst injuries extended into structures above the carpus, an area that is often overlooked.

Based on their findings, the researchers recommend that horses diagnosed with carpal sheath effusion continue to be evaluated by radiology to rule out bone involvement. Perhaps most critically, the study suggests that evaluations should also include an extensive ultrasonographic examination of the back of the forelimb from the level of the mid-radius to the fetlock. Special attention should be paid to the superficial digital flexor muscle, deep digital flexor muscle, and accessory ligament of the superficial digital flexor tendon, areas where the study found injuries to be most common.

“Just like in people, the middle-aged and older horses were at higher risk for developing soft tissue injuries along with carpal sheath effusion,” says Jorgensen. “And these injuries were substantially more severe and associated with more lameness.”

The study was published May 5 in *Veterinary Radiology and Ultrasound*.

*Nik Hawkins*



TAKESHI NODA, UNIVERSITY OF TOKYO

*Ebola virus swarms the surface of a host cell in this electron micrograph.*

Health (NIH) Rocky Mountain Laboratories, a biosafety level 4 facility in Hamilton, Montana, may prompt further tests and possibly clinical trials. More at [www.vetmed.wisc.edu/ebola-whole-virus-vaccine](http://www.vetmed.wisc.edu/ebola-whole-virus-vaccine).

## Mother of Five Logs Many Miles and Years in Pursuit of DVM

It was neither a traditional route nor a direct path to a doctor of veterinary medicine degree for 38-year-old Kelly Flowers. With five children, 17 years of work experience, and a small farmette in southwestern Waukesha County, she has logged quite a few more life miles than the typical recent graduate.

However, an epic academic voyage came to an end in May 2015 when she officially became Dr. Kelly Flowers, a title she decided to pursue nearly a decade ago.

For years, Flowers worked side-by-side with veterinarians. She loved the animals, the clients, and the work, but she knew being a technician wasn't enough anymore. She wanted to be a veterinarian.

In 2006, with three-year-old son, Rylan, and newborn son, Logan, in tow, Flowers began taking prerequisite courses at various universities throughout southeastern Wisconsin, enrolling in any required class that would fit into her busy schedule of full-time work and parenting.

She applied to the UW School of Veterinary Medicine (SVM) in 2008 and in 2010 but wasn't accepted. Freshly divorced, she decided to make one last shot at admission by taking a full-time course load while working full-time to demonstrate her ability to handle the rigorous academics expected of veterinary medical students.

It paid off, and 2011 proved to be a year of second chances for Flowers. She was accepted into the SVM, married her husband, Matt Flowers, and added his three children—Taylor, Connor, and Kendall—to her family.

Each day for four years, Flowers left her home in Mukwonago, Wis., with her children still sleeping and commuted two and half hours round trip



NIK HAWKINS

*Kelly Flowers, Class of 2015, comforts a German Shepherd prior to surgery at UW Veterinary Care. Flowers, a mother of five who began her career in veterinary medicine as a certified veterinary technician, logged 120,000 commuting miles on her journey to a DVM.*

to school. During that time she logged more than 120,000 miles and dedicated every free moment in the Veterinary Medicine Building to attending classes or studying. Surviving on five to six hours of sleep nightly, she often left home at 2 a.m. to study at school before exams.

"I never worked out or socialized like my classmates," says Flowers. "If I had free time at school, I was in the library studying, pushing myself hard because I wanted to learn."

That hard work paid off. Flowers held a 3.73 GPA in her final semester of school. But her ability to pursue her dream was a group effort supported by many, including her husband, children, parents, and in-laws.

"Whenever I thought I had it bad, I'd think of my husband getting five children off to school in the morning," says Flowers. Matt Flowers works as an investment representative at BMO Harris Bank. "The biggest challenge was the juggling. My husband and I wanted to make sure our kids didn't miss out on activities because I was in school."

Flowers acknowledges that her support network extended to her SVM family as well. Faculty allowed her children to attend several lectures during their school breaks, and her fellow classmates traded clinic duties to accommodate her children's active schedules.

"There hasn't been a day that goes by when my husband doesn't tell me how proud he is of me," says Flowers. "I hope this encourages my children to go after what they want in life."

Now Flowers has returned to her former employer, where she previously worked as a veterinary technician. But now she comes to work every day as a veterinarian.

"In my 40 years of practice, I've seen a lot of potential veterinarians come through our clinic," says Jeff Schuett, co-owner with his brother Randy Schuett of Pewaukee Veterinary Service. "Randy and I always recognized that Kelly was special and highly encouraged her to pursue her degree. She took a risk, and look what she's been able to achieve despite adversity."

*Jane Pruhs*

## What's in a Name?



### Dear alumni:

This summer you were invited to support our new teaching and learning space. We are excited to put the old solar panel space to

better use (the panels don't work and are falling apart). Once the project is complete, we will have expanded clinical skills training opportunities and a modern teaching space, all designed to meet the needs of today's veterinary medical students (and your future colleagues)!

The new space will include a wall that recognizes alumni who make a \$1,000 or more gift or pledge to any SVM fund in 2015. We want to let our students know they are connected to those who came before them. What's in a name? Your name on the wall sends a message of support and encouragement. It is a reminder that alumni are invested in our students' success. It is a promise of what awaits their hard work and determination.

We know that for many of you \$1,000 is a lot of money. This is why I am so excited that an anonymous donor, via their 512 Wingra Street Fund, is matching gifts from alumni who make a gift or pledge of \$500 to the new learning space project this year. So, for \$500 (which can be paid over 1–5 years), you can make a \$1,000 impact and have your name included on our alumni donor wall in the new learning space!

Please consider taking advantage of this donor's generosity and be a part of the improvements to our teaching and learning space. I look forward to seeing your name listed on our alumni wall when we welcome students to the new space next year.

*Kristi V. Thorson*  
Associate Dean for Advancement  
and Administration

P.S. The website for this project, [www.vetmed.wisc.edu/new-learning-space](http://www.vetmed.wisc.edu/new-learning-space), lists other naming opportunities. Please contact Heidi Kramer for more information, including class naming gifts. She can be reached at Heidi.kramer@supportuw.org or 608-265-0685.

[www.vetmed.wisc.edu](http://www.vetmed.wisc.edu)

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# On Call

SUMMER 2015

A NEWSLETTER FOR FRIENDS OF THE UNIVERSITY OF WISCONSIN-MADISON SCHOOL OF VETERINARY MEDICINE



ERIC DISCH

*K9 Jagger, with his new bullet-proof vest, and Officer Eric Disch.*

## SVM Fund Drive Buys Body Armor for Police Dog

Police dogs, like their human counterparts, have a dangerous job. They apprehend suspected criminals and sniff out illegal drugs and weapons. Sometimes this leads to conflict; as result, police dogs suffer stab or gunshot wounds every year.

Sadly, many law enforcement agencies don't have the funds to purchase K9 body armor. But thanks to donations from faculty, staff, and students at the UW School of Veterinary Medicine (SVM), a Madison police dog is fighting crime with the added protection of a bullet-proof vest.

Each month, the SVM holds a fund drive for a local charity, most of them benefitting animals.

In March 2015, the school collected donations to purchase a vest for Jagger, a two-year-old German Shepherd who serves as a K9 with the Madison Police Department (MPD) and is also a UW Veterinary Care client.

Coordinated by SVM Facilities Manager Karen Mier, the drive garnered more than enough to cover the cost of the vest. The funds were donated to Wisconsin Vest-a-Dog, a non-profit dedicated to providing protective vests for every police dog in the state, which purchased the vest for Jagger and put the remainder toward body armor for another MPD K9, Slim.

These are the third and fourth sets of canine body armor that

SVM students and employees have helped purchase. Mier previously coordinated the collection of funds to vest police dogs with the Adam's County Sheriff's Department and the UW-Madison Campus Police.

The generosity of another organization originally brought Jagger to the MPD. He and the specially outfitted squad car he rides in with his handler, Officer Eric Disch, were donated by the Berbee Walsh Foundation, which was founded by Karen Walsh, a member of the SVM's Board of Visitors, and her husband, Jim Berbee. The foundation also paid for the month-long training required to prepare Jagger for service.

*Nik Hawkins*