after learning about the success of a pet therapy initiative at the San Antonio International Airport. Programs of its kind are part of a growing trend at airports across the country and represent increasing recognition of the therapeutic benefits of animals.

At DCRA, Pierre and Schreiber use their training to hone in on those who seem in greatest need of comfort. With Pierre's "Pet Me Please" bandanna serving as a friendly invitation, wherever they go, they leave a wake of smiles and thank yous among passengers and airport staff.

"I like to share him with people, and he loves the attention," says Schreiber. "Some people are still getting used to the idea because it's something new, but a lot of people miss their dogs when they're traveling, so Pierre is especially helpful to them. When they meet Pierre, they show me the photos of their own dogs on their cell phones."

But not long ago, Pierre's time as a therapy dog came precariously close to an end. In April 2014, he arrived at UWVC for an annual evaluation and teeth cleaning with Dr. Jason Soukup, during which a small lump was discovered on Pierre's neck. After analyzing a sample of the lump, clinical
Welcome to Our Annual Donor Issue of On Call.

This issue gives us an opportunity to highlight and thank friends and partners who have given so generously to the school. Whether you have supported us through a scholarship, a contribution to enhance our UW Veterinary Care teaching hospital, an estate gift, or a donation toward our greatest needs—I thank you! All gifts are important to our current and future success.

The school is currently pursuing many initiatives. We will soon begin a significant remodeling project to create much needed active integrative learning spaces that will substantially improve our ability to teach in small groups. We will also expand the size of our clinical skills laboratory to provide four times more space for students to practice and refine procedures they will use every day as veterinarians. This construction project is slated to be completed by the fall of 2016.

We also are actively working with our Capital Campaign Committee to begin to raise the funds necessary for building an addition to the Veterinary Medicine Building. I encourage you to visit our website, AnimalsNeedHeroesToo.com, to learn more about our plans and the many benefits of this project for the school’s future.

This effort is critical to the future success and excellence of the school in all that it does, whether by providing better teaching spaces for our students, enhancing our research laboratory capabilities, or doubling our small animal hospital’s footprint and improving our large animal hospital facilities. If you are interested in learning more about this project, please don’t hesitate to contact me.

Again, on behalf of the UW School of Veterinary Medicine, thank you for your generosity and support.

Grunow Gift, Morgridge Match Endow Professorship in Companion Animal Health

As far back as she can remember, animals have been a big part of Melita Grunow’s life.

“I’ve always been an animal lover, as were my parents, who inspired me to be one,” she says.

Not surprisingly, Grunow has had many companion animals over the years, from dogs to cats to horses. Even today a small menagerie roams her property in Lake Geneva, Wis., including Patch, a Goldendoodle; Jestic, a Golden Retriever; Little Jake, a miniature horse; and Donk and Dinky Donk, a mother-son tandem of donkeys.

One of Grunow’s first visits to the UW School of Veterinary Medicine (SVM) came in 2004 when her Bernese Mountain Dog, Bandit, was referred to the teaching hospital for orthopaedic surgery. She was already sending annual donations to the school at the time, but the experience showed her firsthand just what the SVM faculty and staff can do for her four-legged companions. So when the opportunity arose to make an even greater impact this year, she seized it.

Her recent $500,000 gift, which doubled with a matching donation from UW–Madison alumni John and Tashia Morgridge (Grunow’s brother-in-law and sister), has funded the Melita Grunow Family Professorship in Companion Animal Health. The professorship will be bestowed upon a different SVM faculty member every five years and will provide $45,000 annually to support research that benefits companion animals.

The first to earn the professorship, Peter Muir, expects to advance several research projects in the coming years with the help of the new funding. This includes discoveries related to the genetic components of canine cruciate rupture, acquired laryngeal paralysis, and equine degenerative suspensory ligament desmitis; the treatment of osteoarthritis in dogs; and the management of condylar stress fracture in Thoroughbred racehorses.

“This professorship will definitely support some innovative discovery research,” says Muir, professor of orthopaedic surgery and co-director of the Comparative Orthopaedic Research Laboratory. “I’m also excited about the possibilities it will create for the education of veterinary medical students and the career development of veterinary clinician-scientists.”

Muir, the 2013 recipient of the Chancellor’s Award for Distinguished Teaching, has mentored more than 100 students, residents, and fellows during his career, some of whom have moved on to careers in research. He anticipates that the projects supported by the professorship will offer ample opportunity for new veterinary medical students to gain valuable experience and help them transition from the DVM degree to graduate studies.

For Grunow, this is wonderful news. “I know UW is a fairly young vet school, but it’s always producing great research,” she says. “It’s up and coming, and I wanted to make sure that continues.”

Nik Hawkins
Donor-Supported Remodeling Project Creates New Waiting and Exam Rooms for Cats, Small Exotics

When dogs gather, they tend to get a little excited, which means a bit of barking and a flurry of tails and tongues. This is to be expected at an animal hospital as busy as UW Veterinary Care (UWVC), but it’s not always an ideal setting for feline and exotic patients. Cats, rodents, birds, and reptiles typically prefer a little more peace and quiet.

Thankfully, now there’s a separate, dedicated space for these animals to help make their visits to UWVC more pleasant. With the help of some generous donors, the hospital has converted two conference rooms into a single suite containing a waiting room specifically for cats and small exotic animals and two exam rooms with cat-friendly features.

“It really helps reduce stress for our patients, and probably our clients...”

Generous donations funded a remodeling project at the UW Veterinary Care Small Animal Hospital, which included the creation of a small, dedicated waiting room for cats and small exotic pets and two feline-focused exam rooms with special cat beds bolted into the walls at waist level.

The exam rooms themselves feature cat beds, bolted to the walls at waist level, that create safe, comfortable perches where cats can purr and nap to their hearts’ content. These, in addition to new cat perches in the UWVC feline ward, were donated by Audrey Martino in memory of her cat, Chester.

Nik Hawkins

UW Veterinary Care Wishlist

At UW Veterinary Care, we’re always looking for ways to improve. We strive to better serve our clients and their pets and to offer a learning environment for our students that goes above and beyond. Unfortunately, the hospital’s income cannot always stretch to cover all of these improvements. If you would like to help us work toward our vision, please consider contributing to the following equipment and service needs.

UW Veterinary Care will match funds for the items listed below.

—Ruthanne Chun, Associate Dean for Clinical Affairs

Additional giving opportunities in support of UW Veterinary Care can be found at www.vetmed.wisc.edu/uwvc-wishlist.

Pulse Oximeters ($1,000 – $1,500)

These small, portable devices are of critical importance in the hospital for when a patient’s oxygenation is unstable. The pulse oximeters help determine when supplemental oxygen is needed. This essential equipment is utilized around-the-clock and requires ongoing replacement.

Ocular Ultrasound ($35,000)

The ocular ultrasound is used to see into the eye when disease in the front of the eye precludes examination. For example, it can be used to screen dogs prior to cataract surgery to make sure the retina is attached and the dog is a good candidate for surgery, and to assess the cause of disease, when the eye is too inflamed for examination.

Fluid and Syringe Pumps ($1,000 – $1,500)

These essential pumps deliver intravenous fluids to large and small animal patients requiring fluid therapy. The syringe pumps, used for exotic species and small animals, deliver fluids using a “slow push” of intravenous medications to animals who need continuous infusions.

If you are interested in making a gift, please contact Pat Bowdish, Director of Development, at (608) 294-7661 or pat.bowdish@supportuw.org.
HELP from page 1

Nova, Calming Equine Influence

Some therapy animals provide comfort for strangers. But others, like Nova, a 12-year-old Morgan Arab cross, focus on their families.

Nova is one of seven horses that live with Clint and Tish Carlson, their five adopted children, and their two foster children, in La Valle, Wis. Like several of his stablemates, Nova is a rescue horse, and it might explain why he has such a strong connection with the Carlson children. Ranging in ages from 7 to 16, they have all left behind difficult circumstances for better lives, but mental scars still linger. Nova gives them what they need to cope.

“The kids work with Nova and our other horses—brushing, riding, feeding,” says Clint Carlson. “It helps soothe them and gives them a sense of responsibility, and it shows them compassion and love.”

Although the Carlsons are not formally trained in any form of equine-assisted therapy, Tish plans to pursue certification in the future, and they witness Nova’s calming influence on their children every day.

“Nova loves to work,” says Tish Carlson. “It doesn’t matter what crazy thing they ask him to do, he does it without hesitation.”

But one night in May 2015, the Carlsons found themselves in serious jeopardy of losing their treasured horse and all the good he brings to the family.

“The kids went out to feed Nova, and normally he’s in our bottom field, but he was right at the door right away,” says Clint Carlson. “He was acting strange and poking his nose at his side.”

Knowing this could be a sign of colic, or abdominal pain, they called Dr. Suzanne McKichan, a 2009 graduate of the UW School of Veterinary Medicine, at Dells Equine, who drove out to examine Nova. McKichan determined the most likely culprit was an intestinal blockage, but after trying several methods to get him to pass whatever was lodged in his bowels, an endoscopy showed he was still backed up. Thinking a major surgery might be in Nova’s future, she referred the Carlsons to UWVC.

“He wasn’t responding to painkillers, and after a thorough abdominal examination, we found significant small intestinal distension, or bloating,” says Dr. Samantha Morello. “We later confirmed this with ultrasound.”

The ultrasound also revealed what looked like a “bull’s eye lesion”—two concentric circles on the interior surface of the abdomen—suggesting that part of Nova’s small intestine was telescoping into another. This condition, called intussusception, can cause major blockages and intense pain. In addition, an analysis of Nova’s abdominal fluid showed elevated levels of lactate and a particular protein, both of which suggested some of the tissue in his intestine was not being properly infused with blood. All signs pointed to surgery as the only solution, but it quickly became much more complicated than a typical colic operation.

“We found a large mass in his abdomen that turned out to be a significant portion of his small intestine, folded up like an accordion,” says Morello. “It was so thickened and stuck that we couldn’t straighten it out to evaluate the integrity of the tissue.”

The blood flow to the involved bowel was compromised, and that portion of the intestine could not be salvaged, so Morello and large animal surgery resident Dr. Russ Freeland elected to remove it.

“We were surprised and scared at first,” says Clint Carlson. “But Nova’s young, he’s a great horse, and he does so well with the kids, so we knew it was something we had to try.”

Find out how Nova’s story ends by visiting go.wisc.edu/pierre-and-nova.

Nik Hawkins
SVM Faculty, Student Earn Notable Awards and Honors

Moriello Earns Lifetime Achievement Award for Work in Feline Dermatology

Karen Moriello, clinical professor of dermatology at the UW School of Veterinary Medicine, has been awarded the International Society of Feline Medicine (ISFM)/Hill’s Pet Nutrition Award for Outstanding Contributions to Feline Medicine.

A board-certified veterinary medical dermatologist, Moriello received the lifetime achievement award in July at the ISFM European Congress in Porto, Portugal, where she served as keynote speaker.

In addition to her expertise in dermatophytosis (ringworm), which includes co-creating the ringworm screening and treatment protocol that is now followed at shelters all over the country, Moriello has authored more than 200 manuscripts and book chapters on small animal dermatology, along with three teaching textbooks. She is also the co-editor of the international journal Veterinary Dermatology.

Carey Earns International Senior Fellowship

Hannah Carey, professor of comparative biosciences at the UW School of Veterinary Medicine, was named a senior visiting fellow by the Institute for Advanced Studies (IAS) at the University of Bologna (Italy), where she spent six weeks in September and October.

Carey, who studies hibernating mammals to learn how they adapt to extreme seasonal changes in physiology and nutrition, worked with Professor Matteo Cerri at Bologna’s Department of Biomedical and Neuromotor Sciences on research experiments related to metabolic suppression, the process in which an animal actively slows its metabolic rate to conserve energy during a period of inactivity.

Their goal was to learn more about this natural process, potentially laying the groundwork for how it can be achieved in humans. As a physiologist, Carey will advise on how metabolic suppression can affect various organ systems, such as the gastrointestinal tract and the microbes that reside in the gut. Their findings may have applications for areas as wide ranging as space travel and trauma medicine.

Duncan Honored by AVMA for Lifetime Achievement

Ian Duncan, a professor of neurology at the UW School of Veterinary Medicine, has received the 2015 Lifetime Excellence Award from the American Veterinary Medical Association (AVMA).

The award honors a veterinary medical researcher for accomplishments in basic, applied, or clinical research throughout his or her career. Duncan is a world leader in research that focuses on the development and diseases of myelin, a material that covers and protects nerve fibers and is essential to the proper function of the central nervous system (CNS). The deterioration of this protective sheath, or demyelination, is associated with several debilitating diseases, including multiple sclerosis.

Duncan is also a global authority on the genetic disorders of myelination, and he has identified numerous genetic mutations in animals. He has used these discoveries to establish animal models for exploring the various roles of mutant genes in myelin formation and maintenance. Duncan is also a pioneer in the use of stem cell transplantations to repair myelin disorders of the CNS.

CBMS Doctoral Student Fields Earns $133,000 in Fellowships

Daryl Fields, a doctoral student in the Comparative Biomedical Sciences Graduate Program at the UW School of Veterinary Medicine, has received two major research fellowships from the National Institutes of Health (NIH) and the United Negro College Fund (UNCF)/Merck Science Initiative.

A fellowship from the National Heart, Lung, and Blood Institute at the NIH provides Fields with nearly $81,000 in stipend support over two years, and a UNCF/Merck Graduate Science Research Dissertation Fellowship bestows $52,500 in stipend and research supply support for 16 months. Both awards began in September 2015.

The fellowships support Fields as he completes his doctoral dissertation and simultaneously pursues a medical degree as part of UW–Madison’s Medical Scientist Training Program.

His research focuses on mechanisms of respiratory motor plasticity, which has potential therapeutic applications for patients with breathing problems caused by sleep apnea, neurodegenerative diseases, and spinal injuries.

Read about more faculty, staff, and student awards and honors at go.wisc.edu/svm-awards-honors.

Nik Hawkins

Shelter Medicine

The Shelter Medicine Program at the UW School of Veterinary Medicine casts its net of assistance far and wide. Local news outlets in Georgia and North Carolina recently highlighted the program’s efforts to help shelters fight outbreaks of canine influenza and canine distemper.

Led by Director Sandra Newbury, program staff also assisted shelters with the canine flu outbreak in Chicago and surrounding areas. The special quarantine protocols they helped put in place allowed adoptions to continue safely, which prevented overcrowding and saved the lives of many dogs.

To see more news coverage of the Shelter Medicine Program and the SVM in general, visit go.wisc.edu/svm-in-news.
**Imaging Wish List**

Almost all patients seen at UW Veterinary Care will require diagnostic imaging to determine the source of their discomfort, the severity of their injury, or how best to treat their disease. Our patients have a variety of different diseases – from heart disease to dental disease, from cancer to lameness – and each involves different needs for the optimal diagnostic imaging that will help us create a treatment plan and follow through on patient care.

If you would like to make a difference, a gift toward any of the following imaging items would improve our ability to diagnose and treat our patients.

—Kenneth Waller, Section Head, Diagnostic Imaging

Additional giving opportunities for imaging equipment can be found at www.vetmed.wisc.edu/imaging-center.

**Power Injector ($15,000)**
The ability to inject contrast medium into the bloodstream improves our ability to detect disease, particularly when coupled with computed tomography. Power injectors consistently, reproducibly, and safely administer a dose of contrast medium to the patient with limited waste of the initial volume and precise timing. By using the injector, contrast medium is carefully controlled and concentrated to the area of interest, thereby reducing anesthesia time and cost. In some cases, the injector can permit decreases in the required dose. A power injector can ultimately improve diagnoses, treatments, and sometimes outcomes in our patients.

**Digital Radiography Upgrade ($75,000 – $375,000)**
Digital radiography has been used at UW Veterinary Care for the past eight years and has improved our patient care and the ultimate efficiency of the hospital due to its short processing time and excellent image quality. With improved mobility, digital images can be viewed by more than one person in multiple parts of the hospital and enhance our collaborations with referring veterinarians, ultimately improving patient care. The ability to manipulate digital images has improved disease diagnoses and reduced radiation doses to our patients and personnel.

---

**SVM Welcomes New Faculty and Staff**

**Adrien-Maxence Hespel, DVM, MS**, has joined the Department of Surgical Sciences as a clinical assistant professor in radiology and diagnostic imaging. He earned his veterinary medical degree at the University of Liege in Belgium before completing a small animal rotating internship at University College Dublin in Ireland. Hespel then worked in private practice in France and as a consultant for Novartis. Most recently, he completed a radiology residency at Auburn University where he earned his master's degree. He is also a diplomate of the American College of Veterinary Radiology. His research interests include applications of 3D printing in veterinary medicine and interventional radiology, which uses minimally invasive, image-guided procedures to diagnose and treat diseases of the organs.

**Chumkee Aziz, DVM**, is the new outreach veterinarian for the Shelter Medicine Program at the UW School of Veterinary Medicine. She obtained her veterinary medical degree at the Cummings School of Veterinary Medicine at Tufts University in 2012. She also completed an internship at the American Society for the Prevention of Cruelty to Animals Bergh Memorial Animal Hospital in New York City in 2013, which included experience in anti-cruelty work and shelter medicine. Her current interests as an outreach veterinarian, and as a resident with the UC-Davis Koret Shelter Medicine Program, include the role of community collaboration in mitigating pet homelessness, proactive shelter population management, and infectious disease prevention in shelters.

**Ashley Voss** has joined the UW School of Veterinary Medicine (SVM) as a communications specialist. She comes to the SVM from across campus after five years with the UW-Madison School of Education’s External Relations Office. She will use her experience in print and digital communications, graphic design, and event coordination to support school-wide public relations and marketing efforts. Ashley is a 2007 graduate of the UW-Madison School of Journalism and Mass Communication and is excited to help share stories about how the SVM is advancing animal and human health.

**Rachel Crawford** is the new department administrator for the Department of Medical Sciences. She was drawn to the UW School of Veterinary Medicine (SVM) by her fascination with biomedical research, her interest in health care (for both humans and animals), and her love of dogs (she has two—Callie, a Golden Retriever, and Duka, a Boston Terrier). Prior to coming to the SVM, Crawford worked at the UW Carbone Cancer Center for six years in various roles, most recently as manager for the center’s gastrointestinal cancer research program. She has also worked as a research specialist for Asthma, Allergy, and Pulmonary Research in Pediatrics at the UW School of Medicine and Public Health and as a youth program coordinator for the Ho-Chunk Nation. She holds a bachelor’s degree in cultural anthropology from UW-Madison and a master’s degree in health care administration from the University of Phoenix.

**Kerry Ludke** has returned to the UW School of Veterinary Medicine (SVM) to serve as department administrator for the Department of Comparative Biosciences. From 2001 to 2007, she worked in the school’s veterinary medical teaching hospital (now UW Veterinary Care) as supervisor of the small and large animal hospital reception desks, medical records, and the case referral hotline. Most recently, Ludke served as department administrator for the UW School of Social Work. The professionalism, compassion, and quality of care she experienced at the teaching hospital, as well as a desire to learn more about the school’s biomedically research, drew her back to the SVM. Ludke holds a bachelor’s degree in psychology from the University of Wisconsin-La Crosse and has completed coursework toward a master’s of business administration at the University of Wisconsin-Whitewater.
The UW School of Veterinary Medicine Welcomes New Residents, Interns, Fellows

**RESIDENTS**

- Mary Rose (Molly) Allen, DVM  
  Anesthesiology and Pain Management
- Laura Barnard, DVM  
  Neurology
- Caitlin Barry-Heffernan, DVM  
  Small Animal Internal Medicine
- Kyla Beguesse, MS, DVM  
  Zoological Pathology
- Lauren Blume, DVM  
  Radiology
- Ryan Bray, DVM  
  Small Animal Internal Medicine
- Cynthia de Assumpcao Lucidi, MS, DVM, PhD  
  Clinical Pathology
- Marcella Granfone, DVM  
  Emergency and Critical Care
- Kayla Grint, DVM  
  Cardiology
- Chelsea Holschbach, DVM  
  Large Animal Medicine
- Shawn Lennix, DVM  
  Anatomic Pathology
- Andrew Lewin, DVM  
  Ophthalmology

**INTERNS AND FELLOWS**

**Specialty Interns and Fellows**

- Ricardo Fernandez, DVM  
  Oncology Clinical Trials
- Leslie Hopes, DVM  
  Maddie’s Fund Shelter Medicine
- Sydney Lee, DVM  
  Maddie’s Fund Shelter Medicine

**Rotating Interns**

- Hannah Evans, DVM
- Erika Sikina, MPH, DVM
- Aslynn Jones, DVM
- Chris Thomson, DVM
- Thomas Louden Wright, DVM

**Holzman Co-Authors Patient Care Guidebook for Veterinary Technicians**

UW Veterinary Care’s (UWVC) Geri-anne Holzman is the co-author of a new textbook that serves as a comprehensive guide for the care of cats and dogs undergoing surgery — from initial exam to patient discharge and beyond.

Surgical Patient Care for Veterinary Technicians and Nurses (Wiley-Blackwell, 2015) includes chapters on the history of physical examination, pre-operative planning, asepsis, surgical assisting procedures, wound management, postoperative care, and aftercare.

The reference book also features 285 full-color photographs, most of them taken at UWVC, illustrating common surgical instruments and assisting procedures.

In co-authoring the textbook, Holzman drew upon her many years as a certified veterinary technician at UWVC, including time spent as the orthopedic and renal transplant coordinator. She now serves as UWVC’s clinical studies technician. Her partner for the project, Teri Raffel, is a former UWVC operating technician. She currently serves as the laboratory coordinator for the veterinary technician program at Madison College in Madison, Wis.

Ashley Voss
VETERINARY CLINIC SPONSORSHIPS BENEFIT THE SCHOOL OF VETERINARY MEDICINE

Every year, the UW School of Veterinary Medicine receives tremendous support from veterinary clinics that donate to the Companion Animal Fund Sponsor program in the name of a client’s pet who has passed away. We are thankful to be able to help during a pet owner’s time of grief, even just by being a part of that sense of connection generated when a pet owner learns that their veterinarian made a donation in the name of their pet. But we feel even more grateful that we are able to put these gifts to good use to benefit animal care.

Thank you to the following veterinary clinics for their generous participation in this program between July 1, 2014 and June 30, 2015.

$2,000+
Kaukauna Veterinary Clinic
Lake Country Veterinary Care
Muller Veterinary Hospital
New Berlin Animal Hospital
Oregon Veterinary Clinic
Shorewood Animal Hospital
Wright Veterinary Service

$1,000-1,999
All Pets Veterinary Clinic
Appanasha Clinics SC
Dodgeville Veterinary Service
Hartford Animal Clinic Inc
Layton Animal Hospital
Marshfield Veterinary Service
North Country Veterinary Clinic
Oconto Animal Hospital
Park Pet Hospital
Pewaukee Pet Hospital
Thiensville-Mequon Small Animal Clinic
Whitewater Veterinary Hospital

$500-999
All Paws Animal Hospital
Country View Animal Hospital
Delafield Small Animal Hospital
Family Pet Clinic SC
Grassland Veterinary Service
Jefferson Veterinary Clinic SC
Metro Animal Hospital
Northside Veterinary Clinic
Russell Veterinary Clinic PC
St Francis Animal Hospital
Tecumseh Veterinary Hospital
West Salem Veterinary Clinic Inc
Whitewater Animal Medical Center
Wittenberg Veterinary Clinic Companion Animal

Under $500
Animal Hospital of Oshkosh
Bark River Animal Hospital
Dr. Peter J. Gaveras
Dr. Olivia D. Harris Barkoff
Lakeside Animal Hospital
Loyal Veterinary Service
Military Ridge Veterinary Service
North Shore Animal Hospital of Racine Inc
Northwoods Animal Hospital
Pewaukee Veterinary Service
Pulaski Veterinary Clinic
Queen Creek Veterinary Clinic
Token Creek Veterinary Clinic
To Your Door Veterinary Health and Wellness
Valley Veterinary Hospital
Woodland Veterinary Clinic

We’re Grateful for Donations Made Between July 1, 2014 and June 30, 2015

In this issue of On Call, we would like to thank our individual and corporate donors by listing those who made gifts or pledges of $100 or more between July 1, 2014 and June 30, 2015. Cumulative donors, alumni of the School of Veterinary Medicine and the Veterinary Sciences and Comparative Biomedical Sciences graduate programs, and veterinary medical clinics that participated in the Companion Animal Fund have been thanked separately.

We are deeply grateful to all who have contributed. Your gifts make an impact on the lives of animals and humans. Whether you have chosen to direct your gift towards studies to improve animal health, scholarships for students, facility upgrades, or an unrestricted fund that helps us meet emerging needs, your gifts go a long way. Your generosity makes the difference and allows us to maintain the school’s reputation for excellence.

We have made every effort to ensure that this list is accurate; however, a recent switch to a new database may yield some inaccuracies. If there are errors, we apologize and encourage you to call the Office for Advancement at (608) 265-9692 with any corrections.

$1,000,000+
Robert F. and Debra A. Cervenka
Morrie and Tracey Waud

$500,000-999,999
Melita F. Grunow
Allan Holladay
John P. and Tashia F. Morigridge
Jeffrey D. and Sara R. Wiesner

$100,000-499,999
Jane Bunn
Richard R. and Doris B. Dubielzig
Patricia R. Hall
Mary A. Pierson

$25,000-99,999
Jean-Pierre and Nancy Boespflug
Dorothy Dahl
Dean Foods Foundation
Evelyn K. Fryer
Oliver J. and Jane G. Ginther
Elaine D. Marshall
Gayle G. Rosemann and Paul E. McElwee
Terry K. and Sandra K. Shockley
Skeletal Kinetics
VCA Antech Inc
Mary Z. Zemon
Zinpro Corporation

$10,000-24,999
AgSource Cooperative Services
Shawn M. Cavanaugh
Timothy J. and Anne M. Connor
Cooperative Resources International
Glenn A. Dahl
Garry and Deborah Eades
John P. and Margo Edl
Thomas R. and Deborah B. Errath
Humane Society of the United States
Stephen M. Johnson and Dianne M. Byerly
Karl Hausner Farms Foundation Ltd
Patrick G. and Nancy B. Kennedy

$5,000-9,999
Todd R. and Joanna C. Allen
Mark E. and Cheryl A. Brickman
Susan J. Cellmer and Jeffrey C. Neal
Community Foundation of North Texas
Robert B. and Mary R. Fick
Robert F. and Suzanne S. Geller
Claire Hackmann
Henry Vilas Park Zoological Society Inc
Judith Jackman
Land O’Lakes Inc
Jack R. and Daryl J. Luebeck
Bruce B. and Rebecca J. Milne
Morris Animal Foundation
Nestle Purina Petcare Company
Ontario Association of Bovine Practitioners

Jill G. Pelske
Michael T. and Jodi A. Preissner
Professional Dairy Producers Foundation
Professional Dairy Producers of Wisconsin
Richard K. and Bonita L. Riederer
Andrew J. and Cynthia Rolfe
SCAVMA
David H. Simon
Don and Sandy Slusarek
Split Rail Foundation Inc
Suzanne M. Strachota
David R. and Gail F. Turner
Lois M. Vankerkoven
Wisconsin Alumni Association Inc
IN ONE PLACE

We are thankful that all our pet’s many needs can be addressed in one facility. Today’s appointment went just like all of our other appointments: excellent compassion, communication and, of course, treatment.
Special Thanks for Legacy Gifts

Estate pledges, in the form of bequests, trusts, or wills, are another way to make a positive and lasting impact on the school. The following individuals, both living and deceased, have either pledged support for the school through an estate gift or an estate gift has come to fruition in their name.

For more information on how to arrange a legacy gift to benefit the UW School of Veterinary Medicine, contact Pat Bowdish at the UW Foundation at (608) 294-7661.

Allan P. Abell
Todd R. and Joanna C. Allen
Joey E. Amber
Jeffry Anderson
David H. and Nancy K. Aronson
Irving and Wendy L. Benveniste
Cheryl A. Brickman
Victor R. and Norma M. Brockmiller
Jane Bunn
Jackelen A. Callahan
Robert F. and Debra A. Cervenka
Rob and Cheryl Christianson
Lois E. Clementi
John W. Currier
Deanna S. Ding
Betty M. Duebner
Merle and Eunice Eggen
Robert J. and Katherine A. Emery
Harold Engles
Sherree L. Engles
Karen L. Fitt
Earl E. and Linda J. Flaskrud
Beverly S. Freiberg
Jeannette I. French
Karen N. Ganser
Kathy Gehl
Floyd George
Mary E. Gerloff
Christine E. Gonia
Nancy Gusack
Claire Hackmann
Patricia R. Hall
Denny and Kim Harms
June E. Harper
Arlene E. Hartman
James and Jennifer Hausch
Patricia L. Hayes
Oscar A. and Mary E. Hildebrandt
Joyce I. Hoering
Earl K. Holz
Judith Jackman
Scott L. Johnson
Sheryl L. Jones
Gary R. and Kay M. Jones
Kenneth A. and Cathy L. Kerznar
Lynn A. Kniaz
Karla Kreklow
Edward M. and Lois G. Le Vine
Kent H. and Mary Z. Libby
Claire Locher
Martha M. Lound
Joyce A. Madsen
Susan K. Magee
Jacqueline Marshall
Keith L. Mausner and Judith C. Illies

Roger W. and Rocille McConnell
Suzanne McDonald
Christine F. Meyer
William D. Miller
Betty J. Miller
Mary A. Morse
Judy L. Murphy
John S. and Kristina L. Murphy
Kalen K. Nichols
Arthid Nyht
Thomas J. and Sharon N. Palmer
Joyce M. Paulson
Martha E. Pavcek
Mary A. Pierson
Theodore S. Plautz
Kenneth D. Powell
Jodi A. Preissner
Marcia A. Pulich
Fred E. and Marilyn G. Putz
Theresa M. Radant
Andrew L. and Janet R. Raddratz
John and Robin Raley
Walter F. and Martha M. Renk
Doris J. Salsbury
Marion R. Schroeder
Ronald F. and Tami L. Schurer
Marcie T. Schwengel
David R. and Gail L. Seavert
Weston R. Severson and Esther M. Olson
Patricia B. Smith
Hedwig M. Spaght
Barbara A. Sura
Charlotte T. Turner
David R. and Gail F. Turner
Jacqueline A. Vaver
Peter S. and Trisha Y. Wagner
Margaret V. Wald
Morrie Waud
Patricia H. Weisberg
Marilyn R. Wilber
Edwin V. and Linda S. Wise
John R. and Kelli J. Zellmer
Mary L. Zimmermann

Continued from page 9
Shelter from the Storm Inc
Harney B. and Barbara R. Stover
John and Mary A. Stracka
Norman E. and Lois K. Sudnick
Heather Susong
Thomas L. Taylor
Richard J. Taylor
Mary Ann A. Test
Barbara A. Tooman
Thomas N. Torhorst
C Philip and Paula Turner
Vicki Turner
Paul J. and Emily Varkala
VetCor Professional Practices
Veterinary Vision of Rochester
Trisha Y. Wagner
Wisconsin Miniature Pinscher Rescue

$100-499
James F. and Sophia R. Abenante
Caroline L. Adams
Ag Partners
Ronald E. and Sonja A. Ahlert
Mark I. and Virginia L. Alexander
Carla C. Allenstein
Philip R. Andersen
Elizabeth B. Anderson
Eric K. and Susan E. Anderson
Joanne O. Anderson
Jean W. Anderson
Wilmer Anderson
Robert P. and Marianne M. Anderson
James M. and Bonnie K. Andrews
Miriam Ansfield
David B. and Linda A. Arcand
Sara G. Armstrong
Beth C. Arnold
Atlas Vet LLC
David Atwell
Martin E. and Lois M. Auer
Badger Dachshund Club
Bahensky and Donna
Katen-Bahensky
Charles and Madelon Baker
Harold K. and Patricia A. Bakken
Aaron F. Barkoff and Olivia D. Harris
Barkoff
Brian K. and Elizabeth A. Barnes
Morris N. and Virginia Bartot
Clifford W. Bass
Neil E. Baudhuin
Paul H. Bautzmann
Jeffrey J. and Jan Beardsley
Russ and Connie Beavan
Robert J. and Lori E. Beggs
Kelly Bell
Belle Design LLC
Joshua E. Benish
Patricia F. Bennett
Edward C. and Louise A. Bennett
Ruth M. Benzie
James G. Berbee and Karen A. Walsh
Bob and Elise P. Berget
Bruce D. and Kathryn A. Berndt
Bernese Mountain Dog Club of Southeast
Wisconsin
Nyle Biondi
William F. and Laura Bird
Charles E. and Prudence Birringer
Dale E. and Nanci A. Bjorling
Steven C. and Marcia S. Blaylock
Jason A. Bleedorn and Samantha L. Morello
Philip E. Bloedorn
Matthew F. Bloom
Arthur Blum
John J. and Shawn C. Bogdanske
Allan G. and Margaret R. Bogue
Jeremy Booth and Jayne M. Seibel
Dennis L. Borski
Patrick P. and Tiffany Bowdish
Barbara E. Brandel
C J and Angela Brantner
Laura A. Brenner
Mary M. Briscoe
Victor R. and Norma M. Brockmiller
Steven D. and Melody C. Brown
Ruth H. Bruskiewitz
Bruce M. and Brooke A. Buch
Thomas J. Buechel and Kari M. Severson
Thomas J. Buettow
Brian P. and Ellen M. Buggy
Steven J. and Thea R. Buholzer
Kevin A. Buhr and Tracey Evans-Buhr
Charles K. and Mary A. Burgess
Jason R. and Jennie Burt
Kenneth C. and Judith A. Bushek
Timothy L. and Sandra B. Buzard
Joan Z. Calder
Diego F. Calderon
Robert A. and Kim Campbell
Cathleen M. Canavan
Hannah V. Carey
David Carlson
John P. and Laurie L. Celebre
Jill Chavin
Ron and Nancy Christopherson
Deborah A. Chvilecek
Rodney L. and Eva Clark
Craig E. Clark
Barbara A. Clarke
Howard J. and Ann S. Cleary
Margaret E. Clemons
David E. Cloning and Mary K. Gillham
David W. and Bevra L. Cole
Paul C. and Mary M. Colette
Michael T. and Cynthia Collins
Barbara A. Constans
Michael D. and Debbie L. Constant
Nigel B. and Lynn Cook
Carrie B. Coone
William R. Cooper and Lisa A. Borzynski
Robert L. Courter
Cream City Canines Inc
Ruth A. Crennell
Andrew B. Crumley
Thomas J. Cubinski
John W. Currier
Bruce C. and Laurene D. Davidson
Dazzling Paws Jewelry LLC
Joyce A. De Beck
Kurt S. De Prey
James E. Dearing
John R. and Sandra J. Decker
Jason Dembowski
Allan Derge
Edward F. and Georgia L. Dettmers
Margaret A. Devenney
Kevin Dhuyvetter
I am always impressed with the compassion, kindness, and professionalism from all disciplines we meet when we come to UW.
The doctor and student sat down with me and explained things well and took the time to do a thorough job in checking my dog. I felt confident that she was getting exceptional care.
Our alumni donors form a special group of individuals. They have seen both the excellence and the potential of the UW School of Veterinary Medicine firsthand, and even after they graduate, the school holds a special place for them. Whether they work in private practice or academics, stay in Wisconsin or travel far abroad, or even return right here to their alma mater, we appreciate that our alumni remember where they came from.

We would like to thank our alumni who have donated $100 or more between July 1, 2014 and June 30, 2015 to help improve their school, whether for the benefit of animal health, students like themselves, or simply to maintain the excellence of their school.

**$5,000+**
Gustavo Justine PhD ’71

**$1,000-4,999**
Fran S. Azeka DVM ’92
Gerald E. PhD ’71 and Sharon K. Bisgard
Linda Bunkfeldt-Popp MS ’79
Dary D. MS ’74 PhD ’75 and Sharon G. Buss
Claire A. Cornelius DVM ’00
Barbara D. Good DVM ’94
Peter D. MS ’94 PhD ’97 and Karen L. Hanson
Virginia P. Kunch DVM ’97
Kathy M. Reilly DVM ’90
Jean E. Sander DVM ’87
Linda J. Sullivan DVM ’87
Mark A. DVM ’88 and Catherine A. Tetrick
Ty J. Vannieuwenhoven DVM ’89
Ryan M. Wallace DVM ’12
Thomas M. PhD ’64 and Ann W. Yuill

**$500-999**
John T. DVM ’88 and Ranjan G. Been Edith G. Brandt DVM ’88
Bernard C. MS ’58 PhD ’61 and Charlene L. Easterday
Jennifer A. Fleming DVM ’90
Gayle S. Leith MS ’85 DVM ’88
Robert M. Nakamura MS ’66
Darlene K. Osgood DVM ’91
Ellen H. Richardson DVM ’92
Timothy J. PhD ’07 and Tiffany Stein
Alvin F. Weber PhD ’49

**$100-499**
Anton M. Allen PhD ’61
Claudia Barreto PhD ’94
Tracy A. Bartz DVM ’92
Patricia A. Bauman DVM ’87
Patricia A. Beck MS ’76
Eva C. Beyer DVM ’01

Alain M. Bouillant MS ’63
Deborah A. Brinkman DVM ’88
Diane M. Brown DVM ’89
Dennis B. Brown DVM ’90 and Cynthia L. Krach DVM ’90
Karen J. Bryant DVM ’02
Abbe Y. Butler DVM ’06
Robert J. Callan PhD ’96
Christopher C. MS ’87 PhD ’90 and Mary Chase
Robert S. Cook PhD ’66
Clarice S. De Christina DVM ’88
Randy J. De Decker DVM ’88
Carolyn M. Deegan DVM ’87
Michael C. Dix DVM ’98
Patricia A. Dunn DVM ’89
Jeffrey T. Durkin DVM ’92 and Kimberly K. Wedul
Robert J. PhD ’72 and Carlene Eckroade
Sarah Gertmenian DVM ’02
Hannelore Geyer DVM ’98
Franziska B. Grieder MS ’87 PhD ’89
Geralyn M. Grieshaber DVM ’00
Rose C. Grimm DVM ’04
Olivia D. Harris Barkoff DVM ’98
Anne Pientok and Rosanne M. Hatcher–Pientok DVM ’02
Michael J. Hayman DVM ’89
Tamara M. Holz-Jacobs DVM ’93
Amy S. Hubbard DVM ’91
Guy D. Jodarski DVM ’87
A Neill PhD ’77 and Julia Johnson
Richard L. DVM ’87 and Bonnie L. Jones–Wittuhn
Thomas M. Kelble DVM ’89
Thomas J. MS ’73 PhD ’75 and Beverly K. Kennedy
Anthony L. Kiorpes MS ’74 PhD ’77
Jennifer M. Kokes DVM ’00
Loren D. Koller MS ’69 PhD ’71
Narayana R. PhD ’69 and Lalitha Kosuri
Donna B. Krochak DVM ’91
Thomas G. MS ’76 and Shirley R. Ksiazek

Janet Wintersberger
Joseph M. and Debra A. Wisniewski
Richard L and Bonnie H. Withers
Donald A. and Cathlyn L. Wittke
Michael Wolf
Jeffrey R. Wolfgram
Daniel G. Wong and Kristen R. Friedrichs
Marilyn J. Workman
Madeline J. Wright
Timothy P. and Laureen Y. Yoshino
Catherine M. Young
Karen M. Young
Kristine R. Zaballos
Micah Zarlow

Rodney S. DVM ’87 and Lana A. Kuenzi
Diane L. Larsen DVM ’90 PhD ’99
Lisa A. Lindemith DVM ’88
Lynda L. Ludwig DVM ’00
Kyle G. DVM ’88 and Barbara J. Mathews
Jonathan F. MS ’89 PhD ’94 and Stacy A. McNulty
David J. McDonald DVM ’89
Carol J. McLaughlin DVM ’92
Edward L. Metcalf DVM ’95
Winifred G. Morenz DVM ’88
John P. Naeser DVM ’02
Lisa M. Nesson DVM ’94
Paula J. Northrop DVM ’92
Kelly G. Peters DVM ’89
Thomas A. Peterson DVM ’90
James A. Polikowski DVM ’96 and Ruthanne Chun DVM ’91
Brigitte M. Raabe DVM ’07
Peter L. Rayne DVM ’89
Kyle W. Richards DVM ’94
Kurt M. Rossebo DVM ’91
Andrew J. Runte DVM ’98
William E. Sander DVM ’09
Troy D. Semandel DVM ’95
Margaret A. Shaver DVM ’96
Kurt K. Sladky DVM ’93 and Deborah A. Neff
Robert H. Steiner DVM ’93
Rebecca L. Stepien DVM ’87
Helen M. Szalajka DVM ’97
Kim D. Taylor DVM ’89
Sait Tekeli MS ’62 PhD ’63
Kevin L. DVM ’04 and Dawn M. DVM ’03 Thrall
Hilary W. Tort DVM ’02
Kenneth R. DVM ’07 MS ’07 and Shelly M. Waller
Martin O. Wayne DVM ’00
Gary W. DVM ’97 and Amy S. DVM ’97
Wiegel
James A. PhD ’68 and Lorna S. Will
Cesario S. Zamora PhD ’73

Robert J. and Mary L. Ziino
Mary L. Zimmermann
Marcia J. Zing
William J. and Paula M. Zirbes
Arthur J. Zoellner
Betty F. Zupke
Peggy A. Zweber
**Special Thanks to Cumulative Donors**

Every gift to support the School of Veterinary Medicine is always appreciated. The school is especially grateful to those donors who have shown a high level of support, whether they have done so through many gifts or pledges over the years or through a larger donation.

Consistent support at this level provides the margin of excellence in our teaching, research, and service and also serves to show others that our cause is a worthy one.

We gratefully acknowledge the cumulative contributions that the following donors have made toward our overall excellence as well as specific endeavors from 1982 to the present, including gifts and pledges.

**$1,000,000+**
Robert F. and Debra A. Cervenka
Covance Inc
Frank and Evelyn K. Fryer
Olive J. and Jane G. Girther
Christine F. Meyer
Oscar Rennebohm Foundation Inc
Martha E. Pavecek
Walter F. and Martha M. Renk
Barbara A. Suran
Morrie and Tracey Waud
Wisconsin Alumni Research Foundation

**$500,000-999,999**
Irving and Wendy L. Benveniste
Jean-Pierre and Nancy Boespflug
Dr William & Winifred O’Rourke Family Charitable Trust
Equiservices
Margaret D. Fix
Melita F. Grunow
Harvestime Farms Inc
Allan Holladay
Merial Ltd
John P. and Tasha F. Morgridge
Moritz Foundation
Pfizer Inc
Rabies Challenge Fund
VetCor Professional Practices
Jeffrey D. and Sara R. Wiesner
Zoetis

**$100,000-499,999**
Allan P. and Shirley M. Abell
AgSource Cooperative Services
Aquila Biopharmaceuticals Inc
James G. Berbee and Karen A. Walsh
Jane Bunn
Carrington Laboratories Inc
Shawn M. Cavanaugh
Mary L. Comstock
Timothy J. and Anne M. Connor
Dean Foods Foundation
Kathryn N. Doane
Dog Jog Companion Animal Club
Dr Miriam & Sheldon G. Adelson Medical Research Foundation
Richard R. and Doris B. Dubielzig
Duffield Family Foundation
John P. and Margo Edl
Fort Dodge Animal Health
Patricia R. Hall
Arlene E. Hartman
Hemopet
Heska Corporation
Hill’s Pet Nutrition
ImmuNo Dynamics Inc
ImmuNoStar
Inquivar
Susan J. Ilsen
Judith Jackman
JF & MK Pritzker Family Foundation
Carolyn A. Kenney-Carter
Erick J. Laine
Robert G. and Nanette O. Lamphere
David S. Liebl and Linda A. Schuler
Martha M. Lound
Bohdan W. Lucky and Ellen C. Buttenworth
Maddies Spirit
William J. and Shirley A. Maeck
Marjorie Siebert Aylon Foundation Inc
Elaine D. Marshall
Paul E. McElvree and Gayle G. Rosemann
James E. and Jean Mohrhauser
Monsanto Company
Morinda Agriculture
Mary A. Morse
Jeffry A. and Hidee L. Neuenchwander
NuTrasweet Company
OraTec Interventions Inc
OSOD LLC
OsterGenix Inc
Terrance D. and Judith A. Paul
Mary A. Pierson
Theodore S. Plautz
Mary E. Posier
Puelicher Foundation Inc
John G. and Doris J. Salsbury
Salsbury J E Foundation
Eric P. Sandgren
SCAVMA
Gary F. and Camille E. Seamans
David D. and Gail L. Severt
Terry K. and Sandra K. Shockley
Skeletal Kinetics
Smith and Nephew Inc
SONAC USA
VCA Antech Inc
Stuart Webb
Wisconsin Veterinary Medical Association
Marllyn R. Wilbur
Ray B. Zemon
Zinpro Corporation

**$25,000-99,999**
All Pets Veterinary Clinic
Steven L. and Karen L. Allenstein
Alliance Pharmaceutical Corp
Alta Genetics USA Inc
American Society of Veterinary Clinical Pathology
Susan J. Anderson
Appanashia Clinics SC
Badgerland Financial
Bayer - Agriculture Division
Bayer Corporation
Gerald E. PhD ’71 and Sharon K. Bisgard
Blackwell Science LTD
Robert G. and Joellen F. Blount
Boehringer Ingelheim Vetmedica Inc
Mark E. and Cheryl A. Brickman
Kelly Bryson
Kenyon Bryson
Daryl D. MS ’74 PhD ’75 and Sharon G. Buss
Edward J. Campbell
Cynthia R. Cannon
Hannah V. Carey
Susan J. Cellung and Jeffrey C. Neal
Ciba-Geigy Limited
Terrence P. DVM ’87 and Irina Clark
Companion Animal Club
Consolidated Sterilizer Systems
Cooperative Resources International
Country View Animal Hospital
CuraGen Corporation
John W. Currier
Russell A. Cutting and Rene E. Randall
John C. and Dorothy Dahl
Datex Ohmeda Inc
Dodgerville Veterinary Service
C Thomas and Suzanne Dow
Arthur E. and Betty M. Duebner
Rudolf Dueland and Susan J. Hyland MS ’73 PhD ’78
Bernard C. MS ’58 PhD ’61 and Charlene L. Easterday
Eastern Artificial Insemination
Ecolab Inc
Elizabeth Elser Doolittle Charitable Trust
Ellamoe Siebert Foundation
EndoRex Corporation
Andrew J. and Linda D. Erdman
Thomas R. and Deborah B. Errath
Evan and Marion Helfaer Foundation
Farm Credit Services Of NE Wisconsin
Nicole Finizio
Fort Dodge Laboratories
Jorge O. and Sofija Galante
David J. Garfield
Robert F. and Suzanne S. Geller
Genex Cooperative Inc
William R. and Cindy Gengler
Mary E. Gerloff
Matthew R. Ginther and Kelly J. Connor-Ginther
William J. and Patricia J. Goodger
Jonathan V. Goodman
Claire Hackmann
Hartford Animal Clinic Inc
Patricia L. Hayes
William G. Hein
Henry Vilas Park Zoological Society Inc
Harvey A. and Patricia G. Hetland
Earl K. Holz
Iams Company
Darian M. and Jamie H. Ibrahim
IDEXX Laboratories Inc
International Vaccine Institute
Intervet Inc
Inviragen (Singapore) Pte Ltd
Jaqua Foundation
Stephen M. Johnson and Dianne M. Byerly
Ronald C. Katz
Kaukauna Veterinary Clinic
Mark and Michele Keliner
Jack F. Keliner
Patrick G. and Nancy B. Kennedy
King Abdulaziz City For Science & Technology
Kohler Foundation Inc
John H. and Kenneth L. Krehibel
Kuenzi Family Pet Hospital
Dennis J. and Sandra J. Kuester
Don D. and Helen S. Kynaston
Kyoritsu Seiyaku Corporation
Lakeside Animal Hospital
Edward M. and Lois G. Le Vine
Jacqueline W. Lindsay
Kathleen R. Losurdo
Jack R. and Darryl J. Luebeck
Mark D. Markel
Jacqueline Marshall
Marshall & Ileson Foundation Inc
Merck & Co Inc
Merial Intervet
Eugene L. Meyer
Midwest Veterinary Supply Inc
Miles Inc
MillerCoors
Bruce B. and Rebecca J. Milne
Jean C. Moorin
Muller Veterinary Hospital
Nestle Purina PetCare Co
Nestle USA Inc
Novartis Animal Health US Inc
Julie R. Nowicki
David Nowicki
Mathilda V. Oaks
Carl Olson
Omro Animal Hospital
Oregon Veterinary Clinic
William J. and Winifred J. O’Rourke Park Pet Hospital
Frank J. and Jill G. Pelsak
Pepsi-Cola Sales & Dist Inc
Marilin M. Potter
Kenneth D. Powell
Mary K. Pritzker
Promega Corp
Prostate Cancer Foundation
John A. Puelicher
Q Therapeutics Inc
Randall Amor
Barbara C. Retten
Richard K. and Bonita L. Riederer
Augusta D. Roddis
Daniel Roh and Carla C. Allenstein
Andrew J. and Cynthia Rolfe
Sandoz Ag
Saputo Inc
SARDcode Corporation
Ellen J. Schwendeman
Weston R. Severson and Esther M. Olson
Mary Shea
Shorewood Animal Hospital
The vet and student were both very caring, patient, and wonderful in their field. We were very impressed with them and the facility.
Vaccines to protect against an avian influenza pandemic as well as seasonal flu may be mass produced more quickly and efficiently using technology described recently by researchers at the UW School of Veterinary Medicine (SVM) in the journal *Nature Communications*.

The new method for making flu vaccines using cell culture was devised using a type of research that has since been paused by the federal government, which is formulating regulations for how some viruses can be manipulated. The finding emphasizes the value of such research, says Yoshihiro Kawaoka, the professor of pathobiological sciences at the SVM whose group performed the work.

Currently, most flu vaccines are manufactured using fertilized chicken eggs as crucibles to grow vaccine viruses—viruses that are a good match for anticipated seasonal or pandemic flu strains. Flu viruses are grown in the eggs, deactivated with chemicals, and purified to create the raw material for a vaccine.

However, because avian influenza can strike the flocks used to produce the millions of eggs required worldwide to make vaccines, serious outbreaks of avian flu could impede vaccine production.

New seasonal flu vaccines must be produced each year. Vaccines to protect against more worrisome potential pandemic strains of avian influenza are mass produced and stockpiled every few years based on surveillance of the ever-evolving strains of avian flu circulating in fowl worldwide.

Another key drawback to the use of chicken eggs is that the antigenic qualities of the vaccine virus, chosen to be as close a match as possible for an anticipated strain of flu, can change during incubation. The result is a less effective vaccine, such as the one widely used for the 2014-15 flu season, which was less effective due to changes in the circulating virus itself as well as antigenic changes to the vaccine virus propagated in eggs. Moreover, the new technology promises vaccines that do not pose a problem for those who are allergic to eggs.

Technology to produce flu vaccines using mammalian cell cultures already exists, but in its current form it is less efficient than making vaccines in eggs.

The new high-yield method was devised by Kawaoka’s group before the federal government imposed a moratorium on such work in October 2014. Contributing significantly to the work was Jihui Ping, a research scientist at the SVM.

“Depending on the strain, we can get between a twofold and tenfold increase in production using mammalian cells,” Kawaoka says. “Even a twofold increase is substantial for vaccine production.”

In addition to sidestepping the limitations of egg-based vaccine production, the technology is potentially more nimble as vaccine production can be altered or ramped up more easily. “You can scale up cell-based vaccine production very quickly,” explains Kawaoka, one of the world’s foremost experts on influenza.

The new technology hinges on viruses engineered to replicate more efficiently in mammalian cells. By looking for genetic mutations that foster more efficient growth in cells and building those systematically into a backbone vaccine virus, the Wisconsin group was able to produce the high-yield vaccine viruses.

“We simply looked for strains that grow well in mammalian cells and picked those mutations that contribute to high yield,” Kawaoka explains.

A patent for the new high-yield vaccine technology is being sought by the Wisconsin Alumni Research Foundation (WARF). Commercialization of the new method for making flu vaccines could help fuel a switch from egg-based vaccine production, according to Kawaoka.

“Existing strains of flu vaccine virus don’t grow well in cells and there is only one company in the United States currently using cell-based production methods,” notes Kawaoka. “But there is a trend toward cell-based production and we think this work can contribute to that.”

The study was supported by grants from the National Institutes of Health; WARF; the Japanese Ministry of Education, Culture, Sports, Science and Technology; and the Bill & Melinda Gates Foundation.

Terry Devitt
Puppy Up Grant Funds Study of Canine Bone Cancer Treatment

Osteosarcoma is a highly aggressive and painful bone cancer that affects both dogs and humans. At least 10,000 new cases are diagnosed in dogs annually, and most dogs succumb to the disease within a year.

Oncologists at the UW School of Veterinary Medicine have been looking into the causes of and new therapies for osteosarcoma for some time, and thanks to a $96,000 grant from the Puppy Up Foundation, the school will launch a new study aimed at improving mobility and quality of life for dogs afflicted by the disease.

Under the direction of Neil Christensen, clinical instructor in the Department of Surgical Sciences and a member of the UW Veterinary Care (UWVC) radiation oncology team, researchers will explore the potential benefits of stereotactic radiation therapy for osteosarcoma patients. This newer form of treatment, which UWVC is equipped to deliver through its TomoTherapy unit, allows for larger, more accurate doses of radiation while still sparing healthy tissue.

Specifically, the study will look at how stereotactic radiation performs in terms of pain relief for patients and in stimulating an immune response that helps patients’ bodies fight bone tumors on their own. More at go.wisc.edu/puppy-up-grant.

Nik Hawkins

Research Wish List

To keep the UW School of Veterinary Medicine on the cutting edge of research, we must keep our equipment on the cutting edge of technology. With a few improvements to the equipment in our research labs, we could enhance our ability to find new solutions to animal and sometimes human health problems. If you would like to make a difference, a gift towards any of the following equipment needs would make a huge impact in moving our research forward.

—Dale Bjorling, Associate Dean for Research and Graduate Training

New Method Reduces Reliance on Mice in Research

Animal-based research has led to nearly every major medical advancement in recent history. And mice, because they are very similar to humans in terms of genetics and biology, have played a vital role in studies on a range of diseases, from cancer to birth defects.

For example, mice can model how genetics and the environment influence growth and development at different embryonic stages. This requires precisely timed pregnancies, but identifying whether a mouse is pregnant—especially during the earliest stages of gestation—is trickier than one might think, and standard methods are imprecise.

To address this issue, a research team from UW-Madison’s School of Veterinary Medicine (SVM) and Research Animal Resource Center have developed a reliable, non-intrusive method for early pregnancy detection involving the tracking of weight gain that also reduces by 25% the number of mice required to conduct research on development.

“This is not only better from an animal welfare standpoint, which is a high priority, but also for a laboratory’s bottom line,” says Rob Lipinski, assistant professor of comparative biosciences.

More at go.wisc.edu/mice-method.

Neil Christensen, second from left, with Beth Viney, Kai Shiu, and Ginger Morgan of the Puppy Up Foundation.

Support for stipends and tuition for training graduate students and clinical residents in research

Endowment of a position would be approximately $250,000, but any amount can be combined with currently available funds to increase our ability to support graduate training.

UVP Image Acquisition System ($10,000)

This device is crucial for exposing and capturing images generated during analysis of abundance of proteins and other molecules. The unit we currently have is in nearly constant use, often resulting in a wait of several hours to days for access.

Oxygen Exposure System ($100,000 – $150,000)

Our group of researchers studying respiratory neurobiology is unparalleled in the world and is making discoveries that will alter the treatment of devastating disorders of the neuromuscular system. For example, based on basic science research, they recently made a highly novel and exciting discovery that repetitive exposure to low oxygen is highly effective in improving motor function (walking and breathing) in animals and humans with spinal cord injuries. We wish to extend our basic science findings by continuing with clinical trials in canine patients with spinal injuries to parallel similar efforts in human patients. To perform such trials in dogs with clinical spinal injury, a sophisticated system is necessary to explore the best exposure protocol. Such equipment is very difficult to secure via extramural funding, so independent fundraising is necessary to assure that these important and novel efforts continue.

Biosafety Cabinets ($15,000 – $25,000 each)

These cabinets are required to maintain sterile conditions when working with isolated cells and infectious agents such as viruses and bacteria. Without biosafety cabinets, this research cannot be done. They are used in many laboratories, and several of these within the SVM require replacement. The cost is dependent upon the size and ventilation requirements for the cabinet that is installed.

If you are interested in making a gift, please contact Pat Bowdish, Director of Development, at (608) 294-7661 or pat.bowdish@supportuw.org.
SVM Alum Advances 24/7 Access to Veterinarians through New App

In a relatively short period of time, telemedicine and online clinics have become commonplace in human healthcare. But these trends haven’t really caught on in veterinary medicine, perhaps because veterinarians are notoriously sluggish to adopt new technologies. This is something that Scott Spaulding wants to change.

A 1991 graduate of the UW School of Veterinary Medicine, Spaulding is a key part of a major effort to get veterinarians to utilize a new technology—an app called Vet24Seven—that could help transform veterinary medical practice. Available as a free download, the app lets clients consult directly with their veterinarians via live chat or video conference for a modest fee. It can help pet owners gain quick access to information from a trusted source and determine if their animals require emergency care or are experiencing a minor issue.

“Animal owners want convenience and accessibility—that’s our world today,” says Spaulding. “But the veterinary practice model is pretty much the same as it was in the ’60s, ’70s, and ’80s, where you have set office hours and reception as a gatekeeper. This has driven animal owners to other services and online sources for information, which isn’t always best for the animals. We need to change that mindset.”

At his own practice, Badger Veterinary Hospital, which has locations in both Janesville and Cambridge, Wis., Spaulding has always been quick to embrace new modes of communication, from texting to online chatting and social media. After seeing how this has helped his clients, he decided he wanted to help other veterinarians do the same for theirs, and Vet24Seven was born.

Teaming up with Colorado veterinarian Edward Blach and Silicon Valley entrepreneur Cal Lai, they secured $1 million in start-up funds from investor Treve Williams, an Australian equine veterinarian, and others, to develop the app. They conducted beta testing at various practices across the United States in spring 2015 and ran a limited launch with more than 240 veterinarians in the San Francisco Bay Area. The app is now in use in Los Angeles County, and other early adopters have begun using it in Australia, Florida, Kentucky, and Texas.

Michael Sterns, a veterinarian at Alta View Animal Hospital in Mountain View, Calif., says the app has been useful for him and his clients, especially for making follow-up appointments as quick and convenient as possible and for preventing unnecessary and costly emergency visits.

“A lot of stuff that ends up in emergency doesn’t need to be there,” says Sterns. “This helps us determine if an animal needs urgent care without clients having to fight traffic to get to the clinic.”

How It Works

Clients can download the app for free on their iPhone or iPad, which they can use to find available veterinarians in their area using a search function, which sorts results by type of practice, type of care needed, and other criteria. Clients can also store profiles of their pets, save lists of their favorite veterinarians, and update their contact information. With one click, they can confer with an available veterinarian through online chat or video conference options.

Veterinarians access Vet24Seven through an app dashboard, which is free for download on the iPad and only available to

PET TIP

Canines in the Cold

Your pup may love a romp in the snow, but be careful letting him off-leash, especially during stormy conditions. The snow and cold hampers your pooch’s personal GPS: his nose. Make sure your dog always wears a collar with proper identification, and consider having him microchipped so he can always find his way home.
Spaulding says the app is not meant to replace but rather augment traditional veterinary medical care. Still, he knows he will encounter some opposition and skepticism, and he hopes to lead others through the change by example. If all goes well, Vet24Seven should be coming to Wisconsin, including Spaulding’s practice, within a year.

To learn more about the app and its features, visit this website: www.vet24seven.com.

Nik Hawkins

Wallace Earns Public Health Award from CDC

Ryan Wallace, Class of 2012, has received the James H. Steele Veterinary Public Health Award from the Centers for Disease Control and Prevention (CDC). The award is named for the first director of the CDC’s Veterinary Public Health Division. It is given to a current or former officer of the CDC’s Epidemic Intelligence Service who has made outstanding contributions in the field of veterinary public health. Wallace now works as a staff scientist at the CDC and continues his work on preventing and controlling the spread of rabies.

Wesely Earns NCVMA Young Vet Award

The North Carolina Veterinary Medical Association has named Mindy Wesely, Class of 2013, the Young Veterinarian of the Year for 2015. The award recognizes outstanding medical, communication, and leadership skills; dedication to patient and client service; and contributions to the community. Wesely is one of two veterinarians at Stokesdale Veterinary Hospital, a mixed animal practice in Stokesdale, N.C.

IN MEMORIAM

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

Kimberly Conley Utech, Class of 1996, passed away on July 1, 2015. She is survived by her husband, Keith; two children, Jackson and Piper; and countless other family members and friends.

Keith de la Cruz, Class of 2002, passed away on July 20, 2015. He was a small animal veterinarian at AtlasVet in Washington, D.C., and treasurer and secretary of the Virginia Veterinary Medical Association.

IN MEMORIAM

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

Kimberly Conley Utech, Class of 1996, passed away on July 1, 2015. She is survived by her husband, Keith; two children, Jackson and Piper; and countless other family members and friends.

Keith de la Cruz, Class of 2002, passed away on July 20, 2015. He was a small animal veterinarian at AtlasVet in Washington, D.C., and treasurer and secretary of the Virginia Veterinary Medical Association.

Life and Times

IN MEMORIAM

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

Kimberly Conley Utech, Class of 1996, passed away on July 1, 2015. She is survived by her husband, Keith; two children, Jackson and Piper; and countless other family members and friends.

Keith de la Cruz, Class of 2002, passed away on July 20, 2015. He was a small animal veterinarian at AtlasVet in Washington, D.C., and treasurer and secretary of the Virginia Veterinary Medical Association.

IN MEMORIAM

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

Kimberly Conley Utech, Class of 1996, passed away on July 1, 2015. She is survived by her husband, Keith; two children, Jackson and Piper; and countless other family members and friends.

Keith de la Cruz, Class of 2002, passed away on July 20, 2015. He was a small animal veterinarian at AtlasVet in Washington, D.C., and treasurer and secretary of the Virginia Veterinary Medical Association.

IN MEMORIAM

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

Kimberly Conley Utech, Class of 1996, passed away on July 1, 2015. She is survived by her husband, Keith; two children, Jackson and Piper; and countless other family members and friends.

Keith de la Cruz, Class of 2002, passed away on July 20, 2015. He was a small animal veterinarian at AtlasVet in Washington, D.C., and treasurer and secretary of the Virginia Veterinary Medical Association.
The holiday season is upon us, and we have the perfect gift for the animal lovers on your list—one that truly benefits the critters, beasts, and pets they care about.

For a suggested $10 donation per card, the UW School of Veterinary Medicine (SVM) will send a holiday greeting card to the recipient of your choice. The beautiful, full-color card will include a message stating that a donation was made to the school in the recipient’s name and proceeds will support projects that improve animal health.

Each year, a different artist donates artwork for the SVM holiday card. This year, the school is offering two card choices, “Ace” and “Old Blue Eyes,” featuring art donated by John F. McGee of Sun Prairie, Wis.

Both cards make thoughtful holiday gifts for veterinarians, friends, family, or even people’s pets.

Order forms for the holiday cards can be downloaded at www.vetmed.wisc.edu/holidaycard, or you can place an order by contacting Laura Olson in the Office for Advancement at (608) 890-0203.