School of Veterinary Medicine
UNIVERSITY OF WISCONSIN–MADISON

2022 ANNUAL REPORT

MESSAGE FROM THE DEAN

This year marks my 10-year anniversary as dean of the School of Veterinary Medicine, and looking back I am amazed at our upward trajectories in teaching and learning, research, clinical care, and more.

This was a record-breaking year for research funding, in which we received $34.4 million in research grants and extramural awards. The SVM is the fourth-best-funded veterinary medical school by the National Institutes of Health, a testament to our commitment to advance the health of animals and humans alike. We continue to lead in COVID-19 research on-campus and nationwide, which you can read more about on page 12. Our work studying infectious diseases has proven critical to our understanding of diseases affecting animals, humans, and our changing environment through the One Health lens.

We received 1,942 applications to the Class of 2026 — the most applications in a cycle in our school's history. Each of the last three years, the SVM has had the highest number of admitted underrepresented students in the school's history.

Our commitment to diversity, equity, and inclusion (DEI) has continued through the past year. The SVM was honored to host the Iverson Bell Midwest Regional Diversity Summit in May — the first school to host the conference outside of the founders, Purdue University and Michigan State University. The summit was organized by our assistant dean of diversity, equity, and inclusion, **Richard Barajas**, and we welcomed more than 140 people from 13 schools of veterinary

The school was pleased to welcome Chancellor **Jennifer Mnookin** for a visit in June, before she officially began her position in August. We are looking forward to working with her to continue our mission of advancing animal and human health.

medicine to discuss DEI issues in the profession and in academia. More details about the summit and our work to promote a welcoming community for all is available on page 14.

In January, the school welcomed the American Veterinary Medical Association Council on Education for our every 7-year accreditation site visit. The site visit team was impressed with all the SVM does to prepare the next generation of leaders in this amazing profession, particularly in our clinical training and robust opportunities for student research. The school was granted a full accreditation, signifying our commitment to advancing the veterinary medical field.

Since the groundbreaking last spring, our building expansion and renovation project continues to progress. We reached the halfway mark of construction on the addition in August and, in a little more than a year, the north building will be completed and we will begin moving into our new facilities.

Associate dean for professional programs, **Peggy Schmidt**, continues to lead our curriculum revision efforts. Our curriculum revision working groups are having important discussions about the best pathway forward to position our graduates for success in the veterinary medical profession. We are on track to launch the updated curriculum in fall 2024.

2021 saw the conclusion of the All Ways Forward campaign, a university-wide comprehensive giving campaign aimed at moving UW's mission forward. Over the course of the six-year campaign, the school raised a total of $149.7 million, surpassing three previous campaign goals of $40, $75, and $100 million. Gifts from over 16,000 individual donors went to faculty and student support, groundbreaking research, our ongoing building expansion and renovation project, continual DEI work, and more.

Many exciting things are in store for the remainder of 2022 and the start of 2023. Thank you to all who make this important work possible.

ON, WISCONSIN!

MARK D. MARKEL
Dean, UW School of Veterinary Medicine
Vilas Distinguished Achievement Professor

Follow Dean Markel on Twitter:

@UWVetMedDean

UW School of Veterinary Medicine
AT A GLANCE

Three of our four departments elected new department chairs in 2021.

Kristen Bernard
Pathobiological Sciences

Gillian McLellan
Surgical Sciences

Jyoti Watters
Comparative Biosciences

MORE THAN **1,000** MEDIA MENTIONS

"That's why we started to look at deer. It wasn't because they were getting sick [with COVID-19]. It was because the scientific community predicted they would be susceptible."

TONY GOLDBERG
Professor, Department of Pathobiological Sciences,
"Deer Can Carry the Coronavirus: Here's What That Means for the Pandemic" - *Discover*

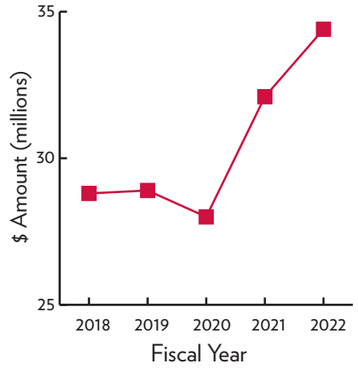
SETH MOFFITT

#6 veterinary medical school in the **nation**

#12 in the **world**

according to the 2022 **QS World University Rankings**.

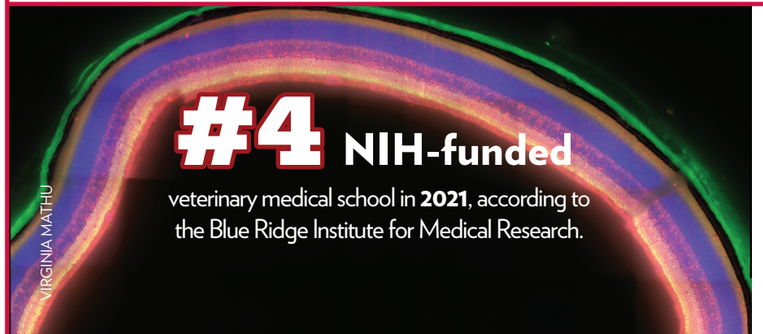
Research Funding by Year



$34.4M

TOTAL RESEARCH & EXTRAMURAL AWARDS
(FEDERAL & NON-FEDERAL IN 2021-22)

A record-setting year for the school.



VIRGINIA MATHU

#4 NIH-funded
veterinary medical school in **2021**, according to the Blue Ridge Institute for Medical Research.

Class of 2026 // ADMISSIONS

96

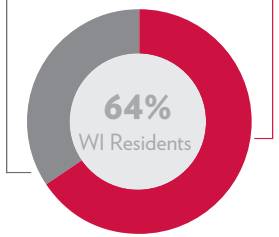
STUDENTS ACCEPTED

out of **1,942** applicants*
225 WI RESIDENTS
1,716 NON-RESIDENTS

*the highest number of applications received in a single cycle to date.

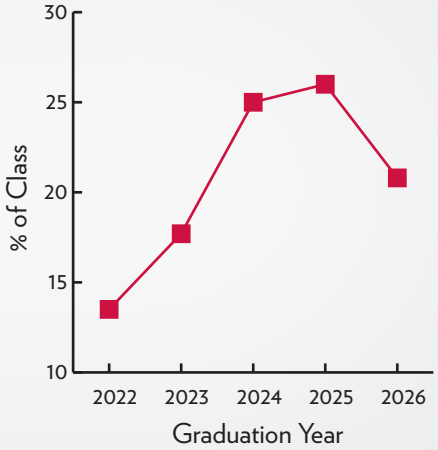
RESIDENCY

WI Resident 62
Non-Resident 34



The three most recent classes of DVM students represent the **most diverse cohorts** at the school to date.

Under-Represented Minority Enrollment



$150M BUILDING EXPANSION

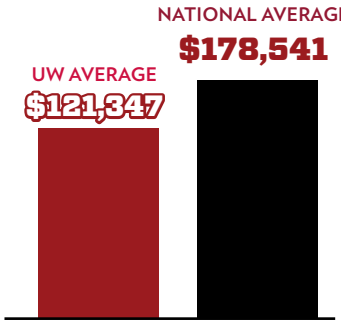
to be completed in **2023**, with renovations of our existing building complete in **2024**.

139,000 ft² NORTH BUILDING ADDITION

14,000 ft² NEW LARGE ANIMAL ARENA

DVM Student Debt Load* Upon Graduation, Class of 2021

** includes those with no DVM debt, total educational debt*



$35M

TOTAL NEW GIFTS AND PLEDGES (2021-22)

$25.3M

NEW ESTATE GIFT COMMITMENTS (2021-22)

School of Veterinary Medicine
UNIVERSITY OF WISCONSIN–MADISON

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The UW School of Veterinary Medicine uses gift funds to produce its publications. To donate to the school, contact:

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Learn more about the ways the UW School of Veterinary Medicine is advancing animal and human health:

vetmed.wisc.edu
uwveterinarycare.wisc.edu
animalsneedheroestoo.com

@uwvetmed

This report is also available online at
www.vetmed.wisc.edu/annual-reports

CONTENTS

LEADING IN CLINICIAN-SCIENTIST TRAINING

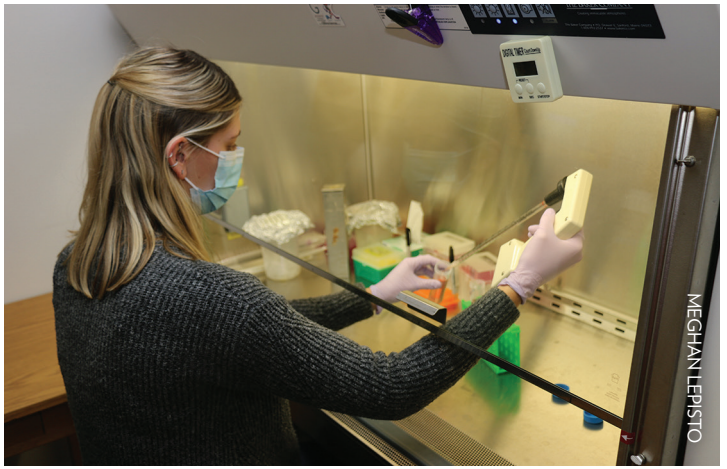
Through a five-year, $3 million grant from the National Institutes of Health (NIH), the University of Wisconsin School of Veterinary Medicine is bolstering the clinician-scientist workforce — a group that is integral to the advancement of clinical practice for both humans and animals.

Clinician-scientists are those with training in clinical care (through their DVM degree, in the case of veterinarians) who are also engaged in biomedical research. The small relative size of the workforce means that there is a national need to train more veterinary clinician-scientists, who develop important contributions ultimately improving clinical care for animals and humans.

The purpose of the grant is to train veterinarians to join translational research teams, in an effort to advance animal and human health by translating scientific research into clinical advancements for diseases common to veterinary and human patients alike.

Spearheaded by **Lauren Trepanier**, professor and assistant dean for clinical and translational research at the SVM, the NIH grant funds three opportunities for veterinarians at various stages in their careers, providing up-and-coming faculty members and recent graduates the chance to be involved in research and the advancement of veterinary medicine.

> **"While going into private practice serves the public on a case-by-case basis, translational research serves a critical role in providing specialists and independent clinics with new techniques, drugs, or approaches to problems."**
>
> LAUREN TREPANIER
> assistant dean for clinical and translational research



Ashley Kuehnl, a DVM/PhD candidate at the School of Veterinary Medicine, flushes bone marrow cells under a laboratory fume hood as part of research into the production of blood cells. Following graduation, Kuehnl plans to use her training as a veterinary scientist to perform comparative oncology work.

Research Fellowships

Twelve funded two-year research fellowships allow residency-trained veterinarians to join interdisciplinary research groups with MDs, PhDs, and other DVMs, bringing their clinical experience to a project spanning human and animal health. This piece of the program aims to bridge the gap between a residency and faculty position, where conducting independent research is expected.

Fellows from across the U.S. — from Pennsylvania to North Carolina to Colorado — gain access to cutting-edge laboratory techniques to enhance their research bridging animal and human health. Six fellows have been appointed to the program so far.

Early-Career Faculty Immersion Program

The second opportunity supported by the NIH grant is the Translational Research Immersion Program, described by Trepanier as a "bootcamp" for conducting research as an early-career veterinary faculty member.

This program includes mentorship in applying for research grants during a 2.5-day-long workshop, along with optional grant coaching over the next year to provide faculty with direct feedback while they work on grant applications. Following the initial conference, participants are placed into small groups based on the funding organizations and deadlines of their upcoming grant proposal submissions.

Grant writing is a crucial skill in academia and one that many early-career faculty members lack in confidence and training. Early-career faculty members from across the U.S. have participated in the training program, citing the mentorship during and after the program as key to their success at securing grant dollars to fund their research.

Translational Summits

Finally, the grant funds a series of Translational Summits designed to encourage mid-career veterinary faculty members to expand their research endeavors and collaborate with human physicians as a part of their work.

These 1.5-day, focused workshops invite MDs, PhDs, and DVMs working on diseases shared by people and companion animals to learn about translational medicine across disciplines. To encourage attendance from physicians, the summits are affiliated with national meetings held by groups that attract MDs and PhDs, including the American Kidney Foundation and Association for Research in Vision and Ophthalmology.

Several research presentations during each workshop compare diseases in people versus companion animals. Additionally, during breakout sessions, participants can discuss their research priorities and coordinate collaborations moving forward. For physicians, the summits can be eye-opening, explaining how they can shift or supplement their research by using spontaneous disease occuring in companion animals.

Veterinarian **Sarah Adrianowycz** of UW Veterinary Care's Oncology Service stands with **Coco**, an 11-year-old Pomeranian mix enrolled in a clinical study investigating a novel treatment for melanoma. As an oncology clinical trials intern, Adrianowycz gained advanced training in clinical studies aimed at developing new and more effective diagnostic and treatment options for cancer.

Five summits have taken place so far, with a total of 10 planned throughout the five-year grant. Three summits took place in 2022, with topics ranging from inherited retinal diseases to protein-losing kidney disease to aging-related sarcopenia, a syndrome of progressive loss of muscle mass that is prevalent in people and companion animals.

Preparing Our DVM Students

The veterinary medicine curriculum does not typically offer clinician-scientist training, according to the NIH. As one of only three vet schools to offer a clinician-researcher emphasis, the SVM is a leader in this field, providing students with a multitude of opportunities to pursue research during their time at the school.

To receive this designation, students must participate in an Introduction to Veterinary Research course as a first- or second-year student, complete a selective course in clinical study design, and participate in a summer research program.

Since its launch in 2018, 10 students have completed the DVM Clinician Research Emphasis, with even more students participating in various aspects of the program. Four students graduated with the emphasis in 2022.

In conjunction with the programs funded by the NIH grant, this curriculum is a testament to the integral work happening at the school to support veterinarian-scientist training and advance the veterinary profession and public health.

TRAINING FUTURE VETERINARIANS

At the School of Veterinary Medicine, we are committed to training future veterinarians who will successfully contribute to health and wellbeing through the range of career opportunities in the profession.

In 2021-22, several members of our student body were recognized for their exceptional leadership skills and for being good stewards of the community. And our staff and instructors continue to excel at preparing our graduates for success.


COURTESY TOOLEY

Student Leaders

In March 2022, **Zachary Tooley DVMx'24** assumed the role of president of the Student American Veterinary Medical Association (SAVMA). Tooley's term as president-elect overlapped with **Marie Bucko DVM'21**, who served as SAVMA president from March 2020-21. With 37 student chapters and more than 17,000 student members, SAVMA aims to support all veterinary students in improving their lives, education, and career.


COURTESY THURSTON

After joining the Veterinary Business Management Association (VBMA) in his first year of veterinary school, **Joseph Thurston DVMx'23** became heavily involved in the organization and was eventually elected to the board of the UW chapter. Now, a year later, Thurston serves as vice president of VBMA's national board. The student-led organization is dedicated to advancing the profession by increasing business knowledge, creating networking opportunities, and empowering students to achieve their personal and professional goals.


ALTHEA DOTZOUR

DVM graduates of the Class of 2022 wave inflated exam gloves in celebration during the spring commencement ceremony, held at the Kohl Center on May 13, 2022.

Supporting Career Development

As career development coordinator at the School of Veterinary Medicine, **Cecilia Grinis** supports veterinary medical students in accomplishing their academic and professional goals. This newly established full-time role assists with career exploration, resume and cover letter preparation, and contract negotiations. Grinis also plans networking opportunities for students. She organized a Career Exploration Day this spring, allowing students to explore potential externships, summer jobs, and professional shadowing opportunities from over 30 employers. A second Career Exploration Day is planned for fall 2022, timed to help fourth-year students begin considering post-graduation plans. Alongside **Richard Barajas**, the school's assistant dean for diversity, equity, and inclusion, Grinis also organized a career panel featuring first-generation faculty and clinicians. Additional events are planned to further support underrepresented communities in veterinary medicine.

Excellence in Teaching

In spring of 2020, UW–Madison finalized a campus-wide initiative to recognize those instructional staff with a strong record of teaching and classroom innovation as teaching professors, a new title reflecting longterm and consistent contributions to excellence in instruction. At the SVM, five faculty members were appointed as teaching professors in 2021.

Delivering Financial Education

The school continues to work to address financial literacy and wellness, veterinary medical student debt, and the financial health of the profession. When the SVM Wellbeing Task Force — a diverse group of representatives from around the school — held a series of listening sessions this past winter, many members of the SVM community expressed a desire for more comprehensive financial education. This mirrors increased financial awareness and concern among graduates nationally.

Throughout the 2021-22 academic year, the school offered a number of financial literacy opportunities at times appropriate for each audience. This included one-on-one, individualized conversations between students and a financial aid advisor; benefits and retirement seminars; a required professional skills course covering liability insurance for veterinarians and educational debt (with plans to expand these topics in the revised curriculum); and a financial skills workshop held each August, after students receive scholarship notifications, to allow them to examine their financial plans for the upcoming academic year. The school will continue to develop and host further dialogues and opportunities to develop financial skills and knowledge.

FINANCIAL SUPPORT

100%
OF SCHOLARSHIP APPLICANTS RECEIVED AID

$3,073
AVERAGE SCHOLARSHIP AWARD*

$2.1M
TOTAL SCHOLARSHIP DOLLARS*

**includes general and off-cycle scholarships, tuition revenue scholarships, Advanced Opportunity Fellowship scholarships, and Board of Regents Trust Scholarships.*

DVM Class of 2021 Student Debt Load* Upon Graduation

** includes those with no DVM debt, total educational debt*

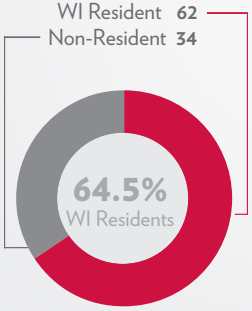
$121,347
UW AVERAGE

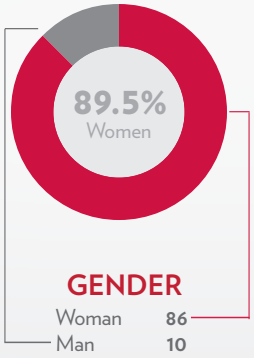
$178,541
NATIONAL AVERAGE

Class of 2026 // AT-A-GLANCE

96
STUDENTS ACCEPTED
out of **1,942** applicants
226 WI RESIDENTS
1,716 NON-RESIDENTS

RESIDENCY





GENDER

Woman	86
Man	10

50
Undergraduate colleges & universities represented

3.72
AVERAGE GPA

ACADEMIC BACKGROUNDS

17 **different undergraduate majors represented**

- Agriculture
- Animal Science
- Anthropology
- Art
- Biochemistry
- Biological Sciences
- Biology
- Biomedical Engineering
- Communication Science & Disorders
- Communication Studies
- Computer Science
- Dairy Science
- English
- Marine Biology
- Molecular Biology
- Psychology
- Zoology

PRIMARY AREAS OF INTEREST

- SMALL ANIMAL - **37**
- FOOD ANIMAL - **17**
- OTHER* - **8**
- EQUINE - **9**
- MIXED - **6**
- WILDLIFE/ZOO - **12**
- AVIAN/EXOTICS - **4**
- RESEARCH/INDUSTRY - **3**

** Includes lab animal medicine, shelter animal medicine, pathology, public health, and undecided areas of interest.*

DELIVERING COMPASSIONATE CARE


MEGHAN LEPISTO

UW Health Anesthesiology resident **Nyle Larson**, right, discusses induction of anesthesia in an equine patient with members of the UW Veterinary Care clinical team during a weeklong elective at UWVC.

This year, UW Veterinary Care clinicians provided excellent care to nearly 30,000 patients, big and small.

Clinicians and fourth-year students received outstanding feedback from clients, noting their kindness, extensive knowledge, and professionalism. With over 20 specialities, UW Veterinary Care delivers expert treatment to animals with a wide range of needs — all in one location.

Medical Cross-Collaborations

Carrie Schroeder, anesthesiology section head at the UW School of Veterinary Medicine, wants clinicians in both human and veterinary medicine to know they hold a lot more in common than they might think. An elective at the SVM for physician residents of UW Health helps make that possible.

The program, coordinated and formalized by Schroeder, allows human medicine anesthesiology residents to spend a week at UW Veterinary Care to gain a new perspective in a different line of practice. Currently, the exchange happens around eight times a year, but Schroeder expects further expansion.

PATIENT VISITS // AT-A-GLANCE (2021-22)

- Canine - **21,056**
- Feline - **4,682**
- Equine - **771**
- Avian - **671**
- Lapine - **850**
- Bovine - **266**
- Other* - **1,155**

*includes Rodentia, Reptile, Porcine, Mustelidae, Camelid, Insectivora, Caprine, Marsupial, Ovine, Primate, Fish, Amphibian, and other mammals.

The program has also created opportunities for SVM trainees. UW Veterinary Care residents are now invited to UW Health Anesthesiology rounds (presentations of a clinical issue). Coordinators are also exploring the potential for veterinary residents to rotate through the human hospital, as well as research partnerships.

Ultimately, the pairing emcompasses the "one health" idea: optimal health outcomes are achieved when people work together and recognize the interconnectedness of humans, animals, and the shared environment.

Journey to Star of the Breed

Soon after **Tom** and **Kelli Cull** brought **Subliminal**, a three-year-old Holstein cow, to their farm in 2013, she took a fall and dislocated her hip. The Culls immediately transported Subliminal to UW Veterinary Care, where **Shelia McGuirk**, then a professor (now retried) of large animal medicine, performed surgery with her colleagues.

After surgery, Subliminal remained in a sling for 90 days. She then spent the rest of the year with hobbles on her legs to limit movement and aid recovery. A year after her fall, Subliminal returned to dairy competition where she has been successful
ever since.

Most recently, Subliminal received the 2021 Star of the Breed Award, capping off over a decade of wins and achievements. The award recognizes a registered Holstein cow that exemplifies milk production and breed standards. At 13 years old, Subliminal is the oldest cow to receive this honor.

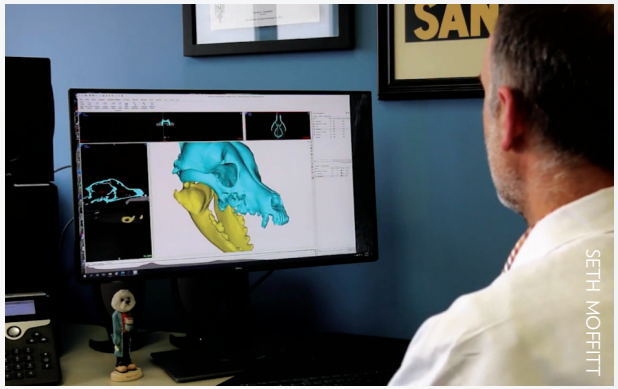
ADVANCING THE FIELD

Clinical professor **Jason Soukup** is advancing the field of oromaxillofacial surgery — using computer models to plan and rehearse reconstruction surgeries of the face, mouth, head, neck, or jaws.

First, the team uses computerized tomography (CT) scans to create virtual three-dimensional models. These models allow the surgeons to rehearse the procedure online, minimizing complications, speeding up the surgery, and reducing the amount of time the patient is under anesthesia.

To date, the team has completed almost 20 procedures using this cutting-edge technology.

Watch a short video to learn more about Soukup's process.



Soukup rehearses a tumor-removal surgery using a virtual model of the patient's skull, created using CT scans.

Soukup shows a 3D-printed jaw bone of a dog, created using the computer modeling software. The metal bone plate was pre-contoured using the model, which shortens the length of the surgery and improves patient outcomes.

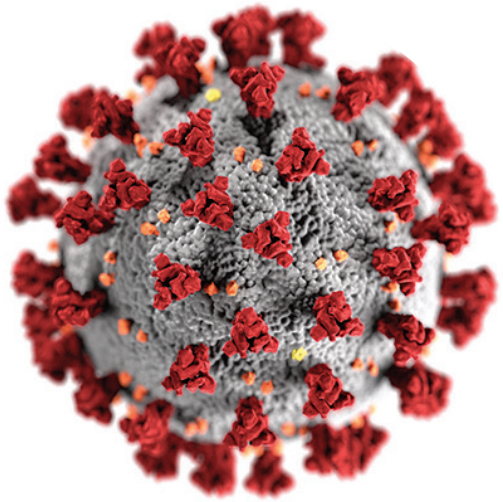
FOSTERING NEW SCIENTISTS & NOVEL DISCOVERIES

The School of Veterinary Medicine is a world-renowned institution for research and education, analyzing veterinary medicine in the context of One Health.

Our faculty and researchers are on the cutting edge of society's most pressing questions, studying topics including the SARS-CoV-2 virus and other emerging infectious diseases, comparative oncology, and best practices for dairy cattle health, to name a few.

In the fiscal year 2022, the school was supported by $34.4 million in grant funding and extramural support — a record-breaking year for research funding at the school. With this financial support, our faculty, staff, and students advanced research and scholarship across basic, clinical, and translational studies.

In the past year, the school added several new faculty members with expertise in diagnostic imaging, sports medicine, dermatology, large animal surgery, and more. These additions allow the school to continue to support, train, mentor, and inspire the next generation of veterinarians and researchers.



Developing a Universal Coronavirus Vaccine

The SVM continues to lead in COVID-19 research on campus and globally. **Yoshihiro Kawaoka**, a professor of pathobiological sciences, has played a significant role in these efforts, publishing several studies pertaining to the pandemic over the past year.

Notably, the Kawaoka lab leads the Pan-Coronavirus Vaccine consortium, one of three research teams the National Institutes of Health chose to develop a universal coronavirus vaccine to protect against COVID-19 and other as-yet-unknown coronaviruses.

Since the original strain of the SARS-CoV-2 virus first emerged in late 2019, numerous versions of the virus (variants) have also appeared. This occurs as the virus replicates and typos in its genetic code equip it with slightly different properties. Sometimes, these changes have been consequential for transmissibility and — as happened with the delta and omicron variants — have become what public health officials call variants of concern.

The universal coronavirus vaccine project is pursuing a vaccine or vaccines that could train our immune systems to respond to a broader array of coronaviruses, including SARS-CoV-2 and its variants. The team was awarded $7 million in funding from the National Institute of Allergy and Infectious Diseases for this work.

Mutation-Resistant Protection

A second line of defense — the immune system's T cells — may offer protection from COVID-19 even when vaccine-induced antibodies no longer can, according to research led by professor and associate dean for research **Marulasiddappa Suresh**.

The scientists discovered that a new, protein-based vaccine against the original COVID-19 virus could teach mouse T cells to recognize and kill cells infected with mutated versions of the virus. This T-cell protection worked even when antibodies lost their ability to identify and neutralize mutated SARS-CoV-2, the virus that causes COVID-19. This work has important implications for future T-cell-based vaccines that could provide broad protection against emergent SARS-CoV-2 variants.

Collaborating on Chronic Wasting Disease

Together, researchers at the SVM and Wisconsin Department of Natural Resources are working to uncover new insights into chronic wasting disease (CWD) in white-tailed deer populations. Building on decades of collaboration between the two units, the partnership has proven vital to the study's success. Their goal is to gain insight into how CWD affects deer populations and eventually build a singular model of data to provide a standard basis for CWD research that doesn't currently exist.

Marie Pinkerton, a clinical professor emerita of anatomic pathology at the school, provides necropsy (autopsy) services for the research project, which began in 2017 and is in its fifth year of data collection.

Since CWD was found in Wisconsin in 2002, it has impacted both wild and captive deer. Stakeholders are working to address and control the disease through a multi-pronged response plan, including research and testing. Of 266,528 wild deer sampled across Wisconsin since 2002 (most of these collected during hunting season), 8,242 have been positive for CWD.

Veterinary residents pursuing advanced training in pathology at the school have also become involved in the process. They've been able to execute the Wisconsin Idea firsthand, utilizing their expertise in service to the state while gaining broader knowledge.

OTHER KEY DEVELOPMENTS:

Professors **Michael Cahill**, **Jyoti Watters**, and **Tracy Baker** continue to shed light on the cognitive and behavioral impacts that sleep apnea in pregnancy may have on offspring. In rat models, the researchers show that maternal sleep apnea can have a variety of detrimental effects on male offspring — from high blood pressure to inflammation in the brain to altering the microbiome of the intestinal tract. Though they studied both male and female offspring, the researchers found the effects most pronounced in males, with many issues not emerging until adulthood.

To get through a long winter without food, hibernating animals — like the 13-lined ground squirrel — can slow their metabolism by as much as 99 percent. Research co-authored by professor emeritus **Hannah Carey** shows that hibernating ground squirrels get help from microbes in their guts to obtain important nutrients like proteins while they hibernate. Further illuminating the keys to survival over the duration of hibernation could help people on low-nitrogen diets or with disorders that cause muscles to atrophy. It could also make it possible for humans to make lengthy trips to distant planets.

Thirteen-lined ground squirrels curled up for seasonal hibernation can slow their metabolic rates to as little as 1 percent of their waking activity.

A number of yellow-colored, spheroid shaped, *Staphylococcus aureus* bacteria in a chain-like configuration.

A study led by assistant professor **Wilmara Salgado-Pabón** characterized a new function of toxins (called superantigens) emitted by the bacterium *Staphylococcus aureus*, which impair the circulatory system's ability to heal from injury. The findings may inform improved treatment plans for infective endocarditis, a serious and potentially lethal infection of the heart valves or lining caused by *S. aureus* infection, and could prevent severe complications in high-risk individuals.

Other transformative SVM research has yielded technological innovations relating to wound healing. For example, an ultra-thin, next-generation skin covering — developed in the lab of **Jonathan McAnulty**, professor emeritus in the department of surgical sciences — can heal chronic wounds and defeat the "biofilms" that shield pathogenic bacteria from antibiotics.

CREATING A WELCOMING COMMUNITY FOR ALL

The UW School of Veterinary Medicine continues to make strides in creating a culture of diversity, equity, and inclusion.

Promoting DEI Across the Midwest

In May, the school hosted the biennial Iverson Bell Midwest Regional Diversity Summit, promoting diversity, equity, and inclusion (DEI) principles in veterinary medicine with special attention to academia. Through the leadership of the Purdue University and Michigan State University colleges of veterinary medicine, the Iverson Bell Midwest Regional Diversity Summit has played a significant role in efforts to increase diversity and inclusiveness in the veterinary medical profession. The SVM was honored to host the summit, which brought in over 140 students, faculty, and staff from more than 13 universities across the country.

Over the three-day conference, themed "From Talk to Action: Becoming a Change Agent on Your Campus," attendees heard from a range of speakers. These included Ho-Chunk Nation President **Marlon WhiteEagle** discussing the history and struggles of the Ho-Chunk people; **Latonia Craig**, assistant dean for inclusive excellence at Purdue University's College of Veterinary Medicine; and **Alejandro Larios Mora**, who spoke more directly on his journey to becoming a veterinarian and the barriers he faced as a minority and immigrant.

True to the theme of this year's Iverson Bell Summit, participants created action plans to promote DEI in veterinary medicine moving forward.

Explore the student and faculty action plans, and our other DEI resources.

Community Mural

The SVM commissioned Milwaukee-based artist **Tia Richardson** to design a mural that will be on display in the Renk Learning Center in the Veterinary Medicine Building. This came as a response to an important conversation started by students in 2020, surrounding diverse representation in the school and the veterinary profession as a whole.

Richardson drew up an initial sketch of the mural after speaking with SVM students, faculty and staff about the challenges and history of the school and veterinary medicine, and the path going forward. Then, at the Iverson Bell Summit, Richardson invited all attendees to participate in painting the mural, emphasizing art as a tool for healing.

The mural will be completed in fall 2022 when it will be displayed as a symbol of the continuous inclusion work being done at the university and throughout the profession.

(Top) Participants pitch in to paint sections of the community mural project led by artist **Tia Richardson**. (Middle) Richardson, at far right, encourages **Rylie VanderPlaats**, at center, from Iowa State University's College of Veterinary Medicine. At left is **Jessica Wild**, a radiology resident at the UW School of Veterinary Medicine. (Bottom) Initial sketches of the community mural painting.

> **"Look at my resume, and it looks like I've done amazing things, but when you hear my story, you can see a lot of the challenges that don't show up on a piece of paper.**
>
> CARA WILLIAMS DVM'13

COURTESY WILLIAMS

Building a More Inclusive Community

Cara Williams DVM'13, diplomate of the American College of Veterinary Preventive Medicine, continues to nurture and build a more inclusive community for future generations of doctors. In fall 2021, she spoke with current SVM students in an alumni spotlight series, offering advice and inspiration to those about to follow in her footsteps.

As a student, Williams felt surprised by the lack of diversity within the school. In response to feelings of loneliness, Williams joined the UW chapter of Veterinarians as One Inclusive Community for Empowerment (VOICE). She later became the chapter president and then national president of the organization. Williams and her peers within VOICE focused on respecting differences in culture and ethnicity, increasing diversity in veterinary medicine, and supporting one another.

Williams continued to face professional challenges in post-graduate life, ultimately leading to the creation of the Multicultural Veterinary Medical Association (MCVMA), stemming from a Facebook group comprised of her peers from VOICE. The organization, of which Williams serves as founder and past president, provides anti-discrimination training to allies in the veterinary profession through webinars and conferences. The group held its inaugural conference in 2021, featuring sessions presented by more than 60 Black, Indigenous, and other people of color (BIPOC) veterinary professionals.

TAKING ACTION:

CONNECTING with over 300 second and third graders in Milwaukee schools through the This is How We "Role" program. This program serves educationally disadvantaged children (due to socioeconomic status, race, or ethnicity) by providing interactive science experiences to learners in grades K-4, with the ultimate goal of diversifying the profession.

IMPLEMENTING an Alumni Spotlight series, bringing alumni of all backgrounds to share their personal and professional journeys in veterinary medicine with our students, faculty, and staff.

SIGNING Pride VMC's Gender Identity Bill of Rights, signifying our support to transgender, non-binary, and gender non-conforming individuals in the veterinary profession.

These are just a handful of ways the School of Veterinary Medicine has actively engaged in diversity, equity, and inclusion in the past year. Looking forward, this work will expand as we further our commitment to the pursuit of excellence in teaching, research, and outreach.

FURTHERING THE WISCONSIN IDEA

In May 2022, **Jorge Osorio MS’88, PhD’96**, professor of pathobiological sciences, was named the next director of UW–Madison’s Global Health Institute. Osorio has decades of international experience studying emerging diseases — especially viruses and other pathogens making leaps from animal hosts to humans — and ways to prevent their spread with vaccines, antivirals, and other public health measures.

The Wisconsin Idea – the principle that education should influence people’s lives beyond the boundaries of the classroom – guides the school’s work in education, research, and patient care.

Our nearly 3,200 alumni encompass graduates of our Doctor of Veterinary Medicine program; PhD and MS graduates of our Comparative Biomedical Sciences program; PhD and MS graduates of the Veterinary Science program, the precursor to the School of Veterinary Medicine; and graduates holding a combination of these degrees. Over half of our living alumni reside in Wisconsin, while the remainder are spread across the United States and the world, residing on all continents except Antarctica. The map to the right shows the statewide and national reach of the school.

Containing Future Bird Flu Outbreaks

To prepare for and help prevent future outbreaks of avian influenza — like the outbreaks seen in 2014 and spring of 2022 — SVM researchers like professor of pathobiological sciences, **Adel Talaat**, are working to develop an avian flu vaccine that is effective against yet unknown strains of the virus.

The vaccine technology Talaat is implementing, called a nanovaccine, uses tiny particles (smaller than the width of a human hair) to deliver immunity by sending pathogen-like signals to cells.

Talaat’s work relies on genetic sequence data gathered from many different strains of avian influenza — data made available by testing and surveillance programs like the one in place at the Wisconsin Veterinary Diagnostic Laboratory (WVDL). Though Talaat’s vaccine is not yet available for commercial use, he hopes it will help protect flocks from future outbreaks of avian influenza. Such outbreaks are becoming more frequent, for reasons yet unknown.

From Students to Entrepreneurs

As a result of the COVID-19 pandemic, many veterinarians noticed a sharp increase in demands for care services and were strained to maximize the efficiency of their staff and referral management systems. Transfur, a tech startup founded by **Annie Pankowski DVMx’23** and her sister, Ali, emerged as a direct solution to this industry-wide problem.

The platform allows veterinarians to request, send, and review the medical records of patients who have received care from other clinics through a business-to-business software model. It uses artificial intelligence to extract relevant information from an animal’s previous medical history. The Pankowski sisters envision it being used by a variety of veterinary professionals, including specialists, primary care providers, and care coordinators.

The business is funded by Varsity Venture Studio, backed by the Wisconsin Alumni Research Foundation (WARF) and High Alpha Innovation, an Indianapolis-based venture studio that partners with large companies and universities to innovate through startup creation.

Improving Dairy Cattle Wellbeing

The Dairyland Initiative is a web-based source for ideas and housing recommendations for dairy cattle. Developed using academic research from SVM faculty and staff, these guidelines seek to optimize dairy cattle health, performance, and wellbeing to create a competitive dairy industry for all members of the dairy team — including the farmer, veterinarian, nutritionist, lender, builder, and other industry consultants.

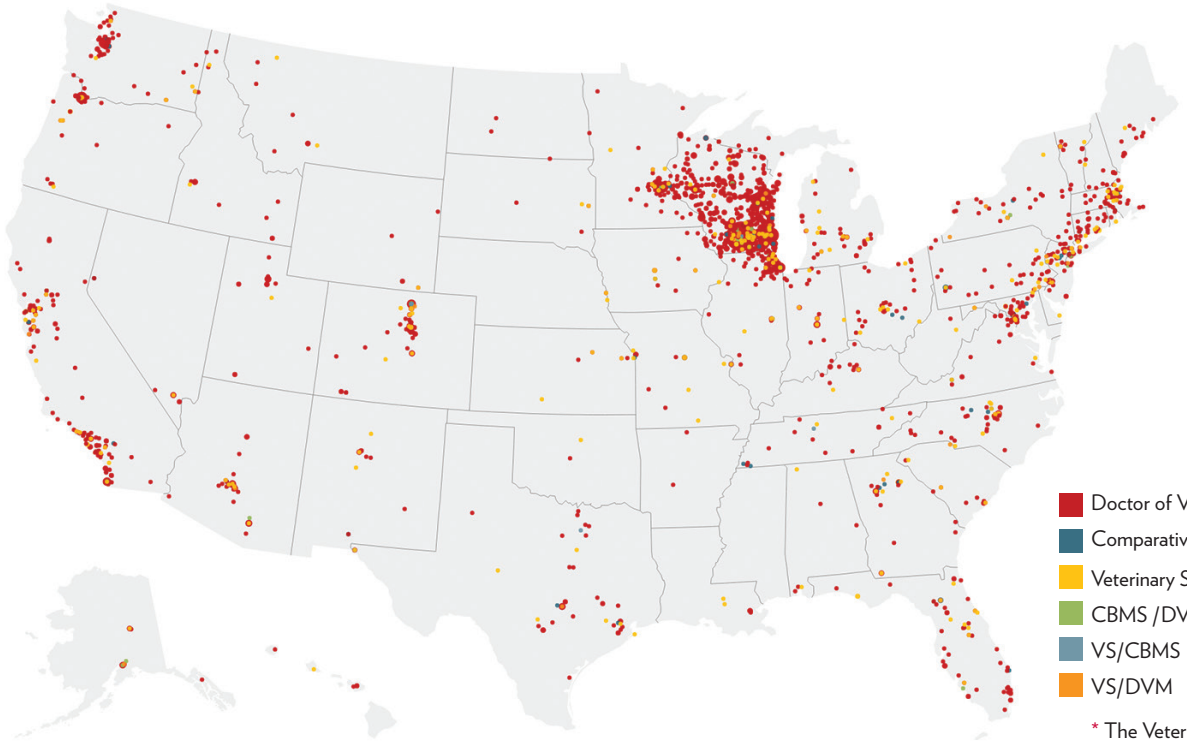
The ultimate goal of the Dairyland Initiative is to advance dairy cattle welfare by creating partnerships, where consumers can be confident that the dairy products they purchase come from farms operating with the highest standards of animal care, welfare, and productivity, and where the producers share in long-term economic viability.

Since its launch in 2010, the Dairyland Initiative has garnered over 2,500 registered users worldwide. Their housing recommendations are influencing the construction of at least two-thirds of the new dairy housing facilities being built in the United States.

The Dairyland Initiative serves farmers through virtual modules on housing, lameness, and calf health; virtual and in-person interactive workshops covering topics such as barn ventilation and automated milking system facility design; and 13 smartphone apps to help farmers manage various aspects of dairy health and productivity.

All content on the program's website is available for free and is translated into English, Spanish, and French, thanks to the support of project sponsors.

Living SVM Alumni Residing in the United States, as of May 2022



- Doctor of Veterinary Medicine (DVM)
- Comparative Biomedical Sciences (CBMS)
- Veterinary Science (VS)*
- CBMS /DVM
- VS/CBMS
- VS/DVM

* The Veterinary Science program is the precursor to the Comparative Biomedical Sciences graduate program.

Our alumni are also found across the globe, residing in the following countries:

- Australia
- Belgium
- Brazil
- Canada
- Chile
- China
- Colombia
- Costa Rica
- Ecuador
- France
- Greece
- India
- Israel
- Japan
- Jordan
- Nigeria
- Pakistan
- Panama
- South Korea
- Sweden
- Switzerland
- Syria
- Thailand
- United Kingdom
- Venezuela

ADVANCING THE SCHOOL

Gifts from generous donors, including animal lovers, hospital clients, alumni, clinic sponsors, community members, and more, allow us to continue our mission of advancing the health of animals and people alike.

Across the 2021-22 fiscal year, the school received $34 million in new gifts and pledges — including $25.3 million in new estate gift commitments. These contributions represent gifts of all sizes and from donors of all walks of life, all helping to make our work possible.

The support of our donors allows us to recruit the most outstanding faculty and students, make critical advances in research, purchase state-of-the-art equipment for UW Veterinary Care and our teaching spaces, and provide financial assistance to our students to set them up for success after they graduate.

We share a gracious thank you with all who make a difference. Your support enables us to train superb students, provide the highest level of clinical care, and make discoveries that advance understanding of animal and human health.

$34M

TOTAL NEW GIFTS AND PLEDGES (2021-22)

20.8%

% OF BUDGET FROM STATE SUPPORT IN 2022

2021 - 19.5%
2019 - 24%
2020 - 23%
2018 - 24%

WORK IN PROGRESS:

Construction of our $150 million building expansion project reached the halfway point in August 2022.

Watch a timelapse video showing the building progress from July 2021 to today, with a photo taken every hour on the construction site, during working hours.

SETH MOFFITT

BY THE NUMBERS

ALL WAYS FORWARD

$149.7M
DOLLARS RAISED

16,000
INDIVIDUAL DONORS

20%
OF ALUMNI MADE A GIFT

$2.7M
SCHOLARSHIP ENDOWMENT INCREASE

7
NEW FACULTY CHAIRS CREATED

Concluding the All Ways Forward Campaign

Launched in 2015, the All Ways Forward comprehensive fundraising campaign aimed to move the university and its mission forward. The campaign was a university-wide success, and the SVM performed remarkably well.

The school raised a total of $149.7 million over the course of the campaign, surpassing three campaign goals of $40, $75, and $100 million. These gifts came from over 16,000 individual donors, comprised of alumni, current and former faculty and staff, students, hospital clients, animal lovers, and various other friends of the school. Nearly 20 percent of our alumni made a gift during the six-year campaign.

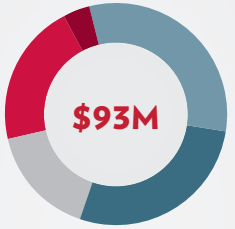
Gifts to the All Ways Forward campaign benefitted all aspects of our work: from faculty and student support, to cutting-edge research, our building expansion and renovation project, and more.

The school's scholarship endowment increased by more than $2.7 million, allowing our students to graduate with signficantly less debt than the national average. Additionally, gifts to the campaign helped advance our building expansion and renovation project. We created seven new faculty chairs, benefitting research to advance animal and human health. Funds raised will also benefit our ongoing diversity, equity, and inclusion work.

Though the campaign has ended, over half of the gifts to the school were planned future estate gifts, ensuring the long-term success of the school.

Financials

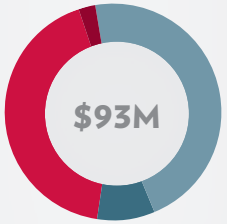
EXPENDITURES BY SOURCE
(in millions)



- Gifts **$3.8M**
- Grants **$29.1M**
- Program Revenue **$25.9M**
- Tuition **$14.9M**
- GPR* **$19.3M**

* State appropriations *(less estimated tuition and fees)*

EXPENDITURES BY PURPOSE
(in millions)



- Student Aid **$2.5M**
- Instruction **$43M**
- Other* **$8.2M**
- Research** **$39.3M**

* Student services, public service, and academic support

** Primarily research grants and contracts

AWARDS & HONORS HIGHLIGHTS (2021-22)

Each year, the school's students, faculty, and staff earn numerous accolades in a wide variety of fields.

This is not a comprehensive list of awards and honors, only a representative sample from July 1, 2021 – June 30, 2022.

More at go.wisc.edu/svm-awards-honors.

AWARDS

Daryl D. Buss
2022 Billy E. Hooper Award for Distinguished Service, American Association of Veterinary Medical Colleges

Bruce Christensen
Harry Hoogstraal Medal for Outstanding Achievement in Medical Entomology, American Society of Tropical Medicine & Hygiene

Ruthanne Chun DVM'91
LaMarr Billups Community-University Engagement Award

Nigel Cook
2021 Award of Excellence, American Association of Bovine Practitioners

Thomas Friedrich
Kellett Mid-Career Award, UW-Madison Office of the Vice Chancellor for Research and Graduate Education

Shawna Hawkins
2022 Resident's Award, American Association of Veterinary Clinicians

Kim Keil Stietz
2022 Early Career Toxicologist Award, Society of Toxicology Midwest Regional Chapter

Montana Lins
2021 Bovine Veterinary Student Recognition Award, American Association of Bovine Practitioners

Sandra Newbury DVM'03
Centennial Visionary Award, Dane County Humane Society

Melissa Sheth DVM'21
Patricia L. Lowrie Diversity Leadership Award, Association of American Veterinary Medical Colleges

Taylor Weary
Dr. Gregory D. Bossart Memorial One Health Scholarhip, One Health Commission

Abby Williams
James H. Gilliam Fellowship for Advanced Study, Howard Hughes Medical Institutes

LEADERSHIP ROLES

Richard Barajas
Diversity, Equity, and Inclusion Committee, American Association of Veterinary Medical Colleges

Ruthanne Chun DVM'91
Distinguished Fellow, National Academies of Practice

Lisa Forrest
Assistant Exam Director, American College of Veterinary Radiology

Becky Johnson
District 5 Representative, Wisconsin Veterinary Medical Association Executive Board

Mark Markel
Past President, American Association of Veterinary Medical Colleges

Gillian McLellan
Fellow, Association for Research in Vision and Ophthalmology

Chris Olsen
2022-23 Chair, American Veterinary Medical Association Council on Public Health

Jorge Osorio MS'88, PhD'96
Director, UW Global Health Institute

Joseph Thurston DVMx'23
Vice President, Veterinary Buisness Management Association

Zach Tooley DVMx'24
President, Student American Veterinary Medical Association


COURTESY NEWBURY


SETH MOFFITT

Clockwise: **Sandra Newbury DVM'03** (left), UW-Madison Shelter Medicine Program Director, accepts the Centennial Visionary Award from the Dane County Humane Society (DCHS) at their 2022 Toto's Gala. Newbury was recognized for her involvement and lasting legacy with DCHS, where she previously served as chief shelter veterinarian; her role in building the organization's partnership with the SVM; and her leadership nationally in her role today, training future veterinarians and improving the wellbeing and saving the lives of countless animals in shelters throughout the world.

Shawna Hawkins is pictured holding the 2022 Resident's Award from the American Association of Veterinary Clinicians, presented annually to two residents who have achieved a high degree of excellence in their chosen specialty. Now a clinical instructor of zoological medicine with the SVM, Hawkins previously completed a residency in zoological medicine at UW.

Ruthanne Chun DVM'91 embraces dog, **Scout MacNeil**, in the 2020 Superbowl ad featuring UW Veterinary Care, paid for by WeatherTech. Chun was the recipient of the LaMarr Billups Community-University Engagement Award for co-founding and helping to grow Wisconsin Companion Animal Resources, Education and Social Services (WisCARES), a community veterinary clinic for low-income and homeless families, considered a national model for community outreach and collaboration.

WEATHERTECH

THANK YOU TO OUR 2021-22 BOARD OF VISITORS

The Board of Visitors for the UW School of Veterinary Medicine serves as an external advisory body to the dean of 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.

Read more about the board members at www.vetmed.wisc.edu/board-of-visitors.

Tom Bach BBA'86, DVM'94*
Madison, Wisconsin

Nancy Ballsrud MBA'75
Minneapolis, Minnesota

John Baumann '82
Monroe, Wisconsin

Debbie Cervenka
Santa Rosa Beach, Florida

Terrence Clark DVM'87*
Cottage Grove, Wisconsin

Margo Edl
Middleton, Wisconsin

Patrick S. Farrell MS'83, DVM'87*
Russell, Pennsylvania

Charity Gottfredsen '02, MS'07, DVM'07*
Chicago, Illinois

Dan Grimm
Waterford, Wisconsin

Melita Grunow
Lake Geneva, Wisconsin

Peter Hanson MS'94, PhD'97*
Boston, Massachusetts

Phil Jennings JD'93
Madison, Wisconsin

Diane Larsen '80, DVM'90, PhD'99*
Duluth, Georgia

Steve Larson MS'70
Fort Atkinson, Wisconsin

Jeffry A. Neuenschwander '82
Detroit, Michigan

Esther Olson
Belleville, Wisconsin

Jill Pelisek
Milwaukee, Wisconsin

Janet Raddatz
Plymouth, Wisconsin

John Schaefer '81
Harshaw, Wisconsin

Karl Solverson '94, DVM'99*
Westby, Wisconsin

Thomas Torhorst '65
Racine, Wisconsin

Karen Walsh '81, MA'89
Madison, Wisconsin

OUR THANKS TO THE SVM ALUMNI ADVISORY BOARD

The Alumni Advisory Board enhances the school's support of and relationship with alumni by providing input on alumni-related activities and communications and the best ways to keep alumni connected.

Tom Bach BBA'86, DVM'94

Holly Hovanec DVM'18

Diane Larsen DVM'90, PhD'99

Jennifer Lorenz DVM'09

Debra Olbrich DVM'07

Brad Poff DVM'87

Kathy Reilly DVM'90

Ann Sherwood Zieser DVM'90

Ty Vannieuwenhoven DVM'89

All degrees listed are earned from UW-Madison.
* Indicates alumni of the UW School of Veterinary Medicine.

CURRICULUM REVISION UPDATES

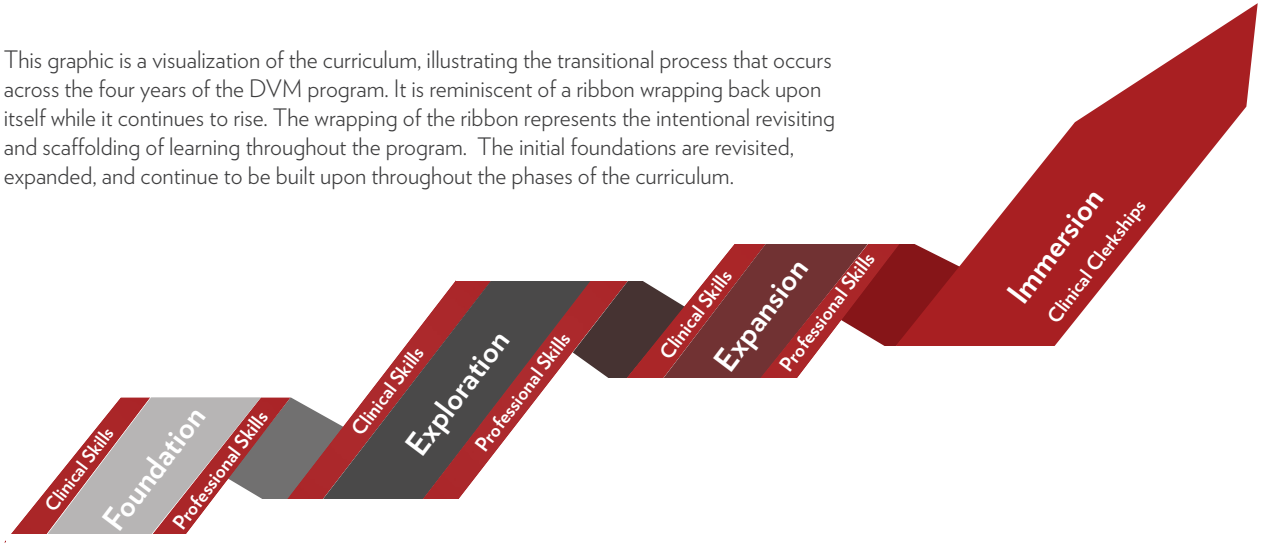
There is perhaps no more important priority for our Doctor of Veterinary Medicine program than ensuring the curriculum is relevant for today's graduates. In August 2020, the school launched a multi-year curriculum revision process to focus the curriculum on what is most necessary for our graduates to know and perform for every facet of their future veterinary work.

Under the leadership of **Peggy Schmidt**, associate dean for professional programs, a Program Revision to Enhance Professional Abilities, Relevance and Excellence (PREPARE) Graduates Task Force is guiding this multi-phase, multi-year change. The task force includes clinicians, research faculty, instructional staff, administrators, students, alumni, and external stakeholders from organized veterinary medicine. The group is using the best available evidence in teaching and learning and feedback from workshops with faculty, staff, and students to guide their efforts.

This summer alone, a tremendous amount of work was put into the revision process, with various working groups finalizing the curricular structure and phase learning outcomes and continuing to outline and refine learning outcomes for each phase.

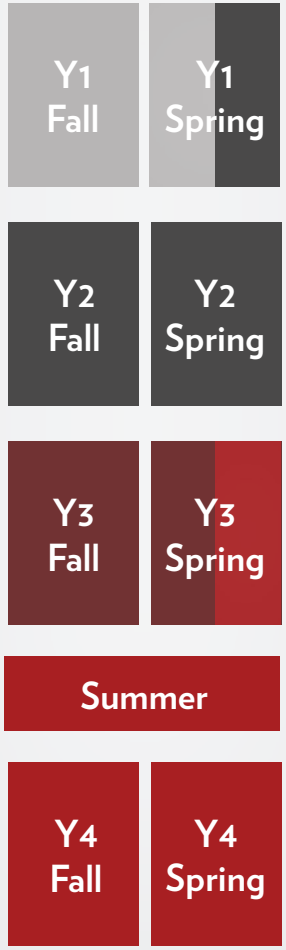
The revised curriculum will be launched in fall of 2024 with the graduating DVM Class of 2028.

This graphic is a visualization of the curriculum, illustrating the transitional process that occurs across the four years of the DVM program. It is reminiscent of a ribbon wrapping back upon itself while it continues to rise. The wrapping of the ribbon represents the intentional revisiting and scaffolding of learning throughout the program. The initial foundations are revisited, expanded, and continue to be built upon throughout the phases of the curriculum.



Phase Breakdown

The phases differ in length to allow more time for students to be adequately prepared to move onto the next phase.



School of
Veterinary Medicine
UNIVERSITY OF WISCONSIN–MADISON

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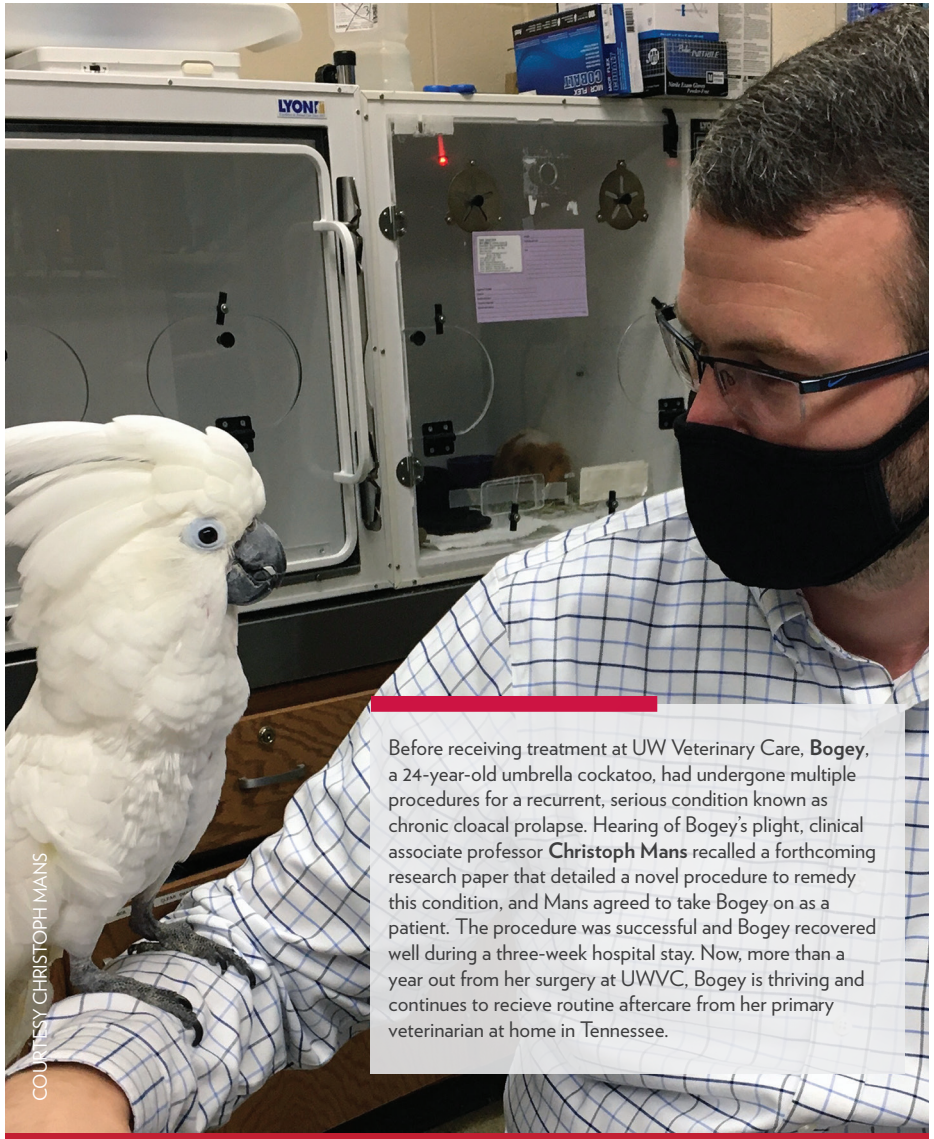
Madison, WI 53706



COURTESY CHRISTOPH MANS

Before receiving treatment at UW Veterinary Care, **Bogey**, a 24-year-old umbrella cockatoo, had undergone multiple procedures for a recurrent, serious condition known as chronic cloacal prolapse. Hearing of Bogey's plight, clinical associate professor **Christoph Mans** recalled a forthcoming research paper that detailed a novel procedure to remedy this condition, and Mans agreed to take Bogey on as a patient. The procedure was successful and Bogey recovered well during a three-week hospital stay. Now, more than a year out from her surgery at UWVC, Bogey is thriving and continues to recieve routine aftercare from her primary veterinarian at home in Tennessee.

We thank the generous donors who provided funding for the production of this publication.