

IOWA STATE UNIVERSITY

# *gentle*doctor

COLLEGE OF VETERINARY MEDICINE FALL 2019 | VOL. 33 NO. 2



## Rural Vet Shortage

# gentledoctor

FALL 2019 | VOL. 33 NO. 2

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Cover story on page 8.  
 Photo montage: Heather Brewer

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## From the Dean

### Dear Colleagues and Friends,

How do we as a profession and specifically Iowa State's College of Veterinary Medicine address student debt?

Additional transformational scholarships are an important part of that answer, one that we are working hard to realize in the College of Veterinary Medicine.

As a college we strive to provide a quality education at a competitive price. However, our students still graduate with a substantial amount of debt. The average educational debt incurred while in vet school at Iowa State is roughly \$142,000. That figure has held steady for the past several years and while it's significantly lower than the national average of around \$170,000, it's still too high.

The fact that we have been able to keep student debt lower than our peer institutions is due to several reasons including low tuition increases and the affordable cost-of-living students enjoy in Ames.

But it's also because of many of you. We have worked hard to provide scholarships and other financial assistance to our students.

I want to express my deep and sincere appreciation to our proud alumni and friends of the college, individuals who understand the importance and the impact they can make on the lives of our students by investing in their education. Thank you for your generosity to our college and profession.

But there is much more to be done. Just five years ago we awarded \$450,000 in scholarships to our students. This academic year that figure is over \$1 million. My stated goal is to continually increase our scholarship aid so by 2023 we will annually award \$2 million in financial assistance, which would equal 10 percent of our student's tuition bill.

That's a tall order, but I am confident that with your help, and the help of the thousands of our college alumni and friends, we can meet this goal.

Decreasing student debt is beneficial not only to the college and its students but to our profession as well. This issue of the *Gentle Doctor* explores the shortage of veterinarians in underserved, rural areas, not only in Iowa but throughout the nation. While there are many reasons why veterinarians are not locating to rural areas, one of the major factors cited by recent graduates is the heavy debt load they have incurred.



Photo: Christopher Gannon

Often, earning potential in rural practice settings is lower which makes it more challenging to pay off student debt. The debt burden is also a significant factor surrounding the wellness of our students and recent graduates.

I hope you will consider helping our students. In 2020 we are launching a new scholarship fund in the College of Veterinary Medicine. The goal is to not only increase the total amount of scholarship aid the college is offering but to create significant, **transformational** scholarships for our students. While every scholarship helps, we are looking to create larger scholarships on an annual basis, scholarships that will make a significant dent in the tuition for both Iowa and non-resident students. Please look for additional information about this initiative in the coming months.

Thank you again for your past and future support of the College of Veterinary Medicine.

Dan Grooms, DVM, PhD

Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine

## REGENTS APPROVE FIELD SERVICES ADDITION



Photos: Dave Gieseke

The Board of Regents has approved the budget for an addition to the Veterinary Field Services Building. The project will renovate 1,500 square feet of the existing 9,000 square-foot structure and add 6,000 square feet at a cost of \$3.7 million.

The building simulates an agriculture animal practice in which veterinary students interact directly with farmers. Caseloads in the service have more than doubled, and the number of veterinary students on mixed or food animal track is rising, as is the volume of faculty field-based research.

Construction has started on the project and is expected to last 15 months. Funding will come from the College of Veterinary Medicine, Veterinary Field Services, the Veterinary Diagnostic Laboratory, and the Department of Veterinary Diagnostic and Production Animal Medicine.

## Small Animal Hospital Identified as a Veterinary Trauma Center

The Hixson-Lied Small Animal Hospital has been identified as an American College of Veterinary Emergency Critical Care (ACVECC)-provisional Veterinary Trauma Center.

To meet this standard of veterinary care, a hospital must have board-certified specialists in emergency/critical care, radiology and surgery available for consultation around the clock.

In the next year to 18 months, the Hixson-Lied Small Animal Hospital will submit an application to be verified as a Level II trauma center. The ACVECC has identified 21 Veterinary Trauma Centers in the United States.



Photo: Paul Gates



## CVM RECEIVES HIGH RATINGS IN INTERNATIONAL RANKINGS

The College of Veterinary Medicine is 12th internationally and second in the United States in the 2019 Shanghai-Ranking's Global Ranking of Academic Subjects for veterinary sciences.

Only the University of California-Davis is rated higher than Iowa State in these rankings among U.S. veterinary colleges. Ghent University is ranked number one overall.

ShanghaiRanking ranks institutions in 54 subjects including veterinary sciences. To be included in the ranking, the universities need to have a minimum number of research publications from 2013-17.



Photo: Dave Gieseke

## ALUMNUS PRESENTS COMMENCEMENT ADDRESS

Dr. Vincent Meador, a 1981 DVM graduate, was the featured speaker during the 2019 College of Veterinary Medicine Commencement ceremonies.

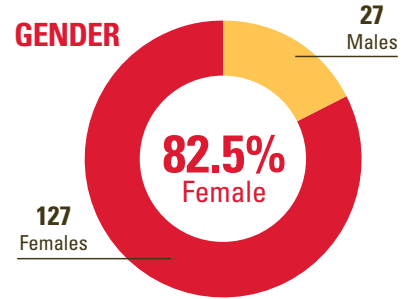
Meador is an Ames native and a Diplomate of the American College of Veterinary Pathologists with both anatomic and clinical certifications. After graduation Meador worked in private practice before joining the USDA. He also worked for major pharmaceutical companies.

He currently operates a drug development and pathology consulting company and has a major role in establishing a drug development laboratory in Shanghai.

## CLASS 2023 PROFILE

TOTAL CLASS SIZE:  
**154**

### GENDER

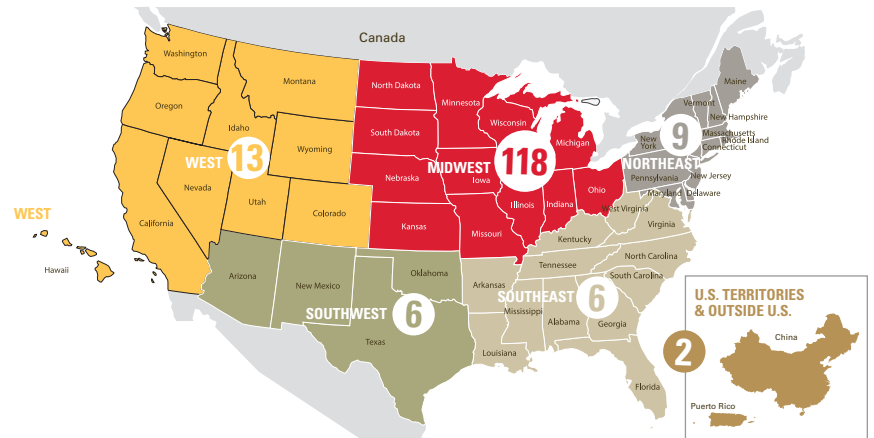


AGE  
Mean:  
**24 years**  
Range:  
**20-40 years**

DEGREES  
No Degree: 10  
Bachelor's: 136  
Master's: 7  
PhD: 1

GPA  
Science GPA  
Mean: 3.55  
Last 45 GPA  
Mean: 3.69

## CLASS 2023 HOME REGIONS



## GOODBYE & HELLO

The school year ended last May with graduation for 150 DVM students in Stephens Auditorium. A few months later, the new school year started in August with the annual White Coat Ceremony for 154 incoming VM1 students.



Photos: Dave Gieseke



Photo: Red Tree Photography

## Three CVM Faculty Members Awarded Dean's Fellowships

Dr. Dan Grooms, the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine, has announced the funding of three Dean's Fellowships to faculty in the College of Veterinary Medicine.

The fellowships, which are provided through funds from the Juelsgaard Dean's endowment fund, support programmatic activities of faculty who are poised to become leaders in their fields.

The recipients of the Dean's Fellowships are:

- **Dr. Josh Beck**, assistant professor in biomedical sciences. Beck studies how malaria parasites take over human red blood cells. This could lead to better treatments for malaria, a disease that kills nearly half a million people every year.
- **Dr. Daniel Linhares**, assistant professor of veterinary diagnostic and production animal medicine. Linhares has developed field-based strategies to prevent, significantly control and/or eliminate swine infectious diseases. His work is leading to the development of population-based diagnostic tools that help veterinarians and producers identify the health status of their production animal enterprises quickly and efficiently.
- **Dr. Thimmasettappa Thippeswamy**, professor of biomedical sciences. Thippeswamy's research is focused on identifying neurobiological changes that occur following nerve injury and in epilepsy. An award-winning instructor, Thippeswamy has developed teaching techniques that focus student understanding of anatomy based on clinically relevant functions versus more traditional methods of memorizing of structures.



Dr. Beck



Dr. Linhares



Dr. Thippeswamy

### IOWA STATE FAIR

Dr. Dan Grooms, the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine, was the celebrity show person for "Team Ernie" at the Governor's Charity Steer Show at the Iowa State Fair. Team Ernie was co-sponsored by the College of Veterinary Medicine and the Iowa Veterinary Medical Association. The steer was raised by Quinton Grove of Ellsworth, Iowa.



Photos: Dave Gieske

# Happy Birthday



On May 23 the College of Veterinary Medicine celebrated its 140th anniversary. It was on that date in 1879 that the college was founded as the first public veterinary college in the nation. Dr. Milliken Stalker served as the college's first dean from 1879 to 1900.

## DIVERSITY & INCLUSION



Photo: Dave Gieske

Dr. Hilda Mejia Abreu, associate dean of admissions, student life and inclusivity at Michigan State University, spent two days in the College of Veterinary Medicine in June assisting the college review its diversity and inclusion programs. She met with various groups throughout her visit including this reception for students, faculty and staff.

## Plans Moving Forward with New VDL

Initial planning is nearing completion on the new Veterinary Diagnostic Laboratory.

The \$75 million project will address additional and contiguous space requirements for the laboratory, biosafety containment and functional adjacencies to serve the highly integrated and interdependent laboratory sections.

The new VDL will provide essential infrastructure for sample receiving and processing, pathology, bacteriology, necropsy, histopathology, and an incinerator. The new construction will improve efficiency and effectiveness of the process flow

while addressing critical issues of space quantity and quality and provide the necessary biosafety and biocontainment for the state's only fully accredited veterinary diagnostic lab.

Schematic designs of the new facility will be completed in 2019 with construction anticipated to begin the following fall. The project is slated to open in the spring of 2023.

The project has been funded by a \$63.5 million state appropriation with additional funding from the VDL, College of Veterinary Medicine and Iowa State University.



## Faculty Briefs

**Dr. Paul Plummer**, associate professor of veterinary diagnostic and production animal medicine, has been named to the U.S. Department of Agriculture Secretary's Advisory Committee on Animal Health. Plummer's two-year appointment is as a representative for veterinarian/veterinary professional organizations. The committee will advise the Secretary of Agriculture on public and industry perspectives on USDA strategies, policies and programs to prevent, control and/or eradicate animal health diseases. The committee will also lead dialogue on public health concerns and the stability of livestock economies.



Dr. Plummer

**Dr. Qijing Zhang**, Frank K. Ramsey Endowed Chair in Veterinary Medicine and a Clarence Hartley Covault Distinguished Professor in veterinary microbiology and preventive medicine, is the 2019 president of the Conference of Research Workers in Animal Diseases.



Dr. Zhang

**Dr. Jim Noxon**, Morrill Professor and professor of veterinary clinical sciences, has been honored with the Exemplary Faculty Mentor Award from the Office of the Senior Vice President and Provost. The award recognizes university faculty members who make a positive impact in their mentees lives and careers.



Dr. Noxon

**Dr. Dan Grooms**, the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine, gave the keynote address at this fall's annual meeting of the American Association of Bovine Practitioners.

**Dr. Amanda Fales-Williams**, chair of the Department of Veterinary Pathology, has begun her term as president of the Iowa Veterinary Medical Association (IVMA).



Dr. Fales-Williams



# Rural Vet Shortage

By: Dave Gieseke

**R**ural Iowa communities have a problem. It's a problem Dr. David Schmitt ('73) became well aware of during his 12-year stint as Iowa's state veterinarian.

"During my tenure I received many phone calls from food animal veterinarians who all told me a familiar story," Schmitt wrote in an opinion piece published this past year in the *Des Moines Register*. "Their practices were having trouble hiring – no matter their recruitment efforts, they simply couldn't find veterinarians who wanted to work with food animals in rural areas."

Over the past decades, rural populations have declined not only in Iowa but throughout the United States. It has become harder and harder for communities to attract professional workers who will not only not relocate but won't stay for the long haul.

Veterinary medicine is at the forefront of this crisis.

"In many rural areas, there simply aren't enough food animal veterinarians, leaving livestock without timely access to preventive care and vulnerable to dangerous diseases that can wipe out herds and flocks," Schmitt wrote.

Dr. Dan Grooms, the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine, decided it was time Iowa State's College of Veterinary Medicine studied the issue. Through the Dean's Summer Leadership Internship Program, Grooms and a pair of veterinary students – Kelsey Deaver and Laura Pelzel – tackled the issue this past summer.

"Our idea was to gather information that we could use to help understand why a shortage of veterinarians in rural Iowa is developing," Grooms said, "and then use that information to start attacking the problem."

Deaver and Pelzel contacted veterinary clinics across the state. The trio made visits to various clinics to speak with veterinarians to find out what the

issues were. Surveys were conducted with current Iowa State veterinary students to determine what their career aspirations were.

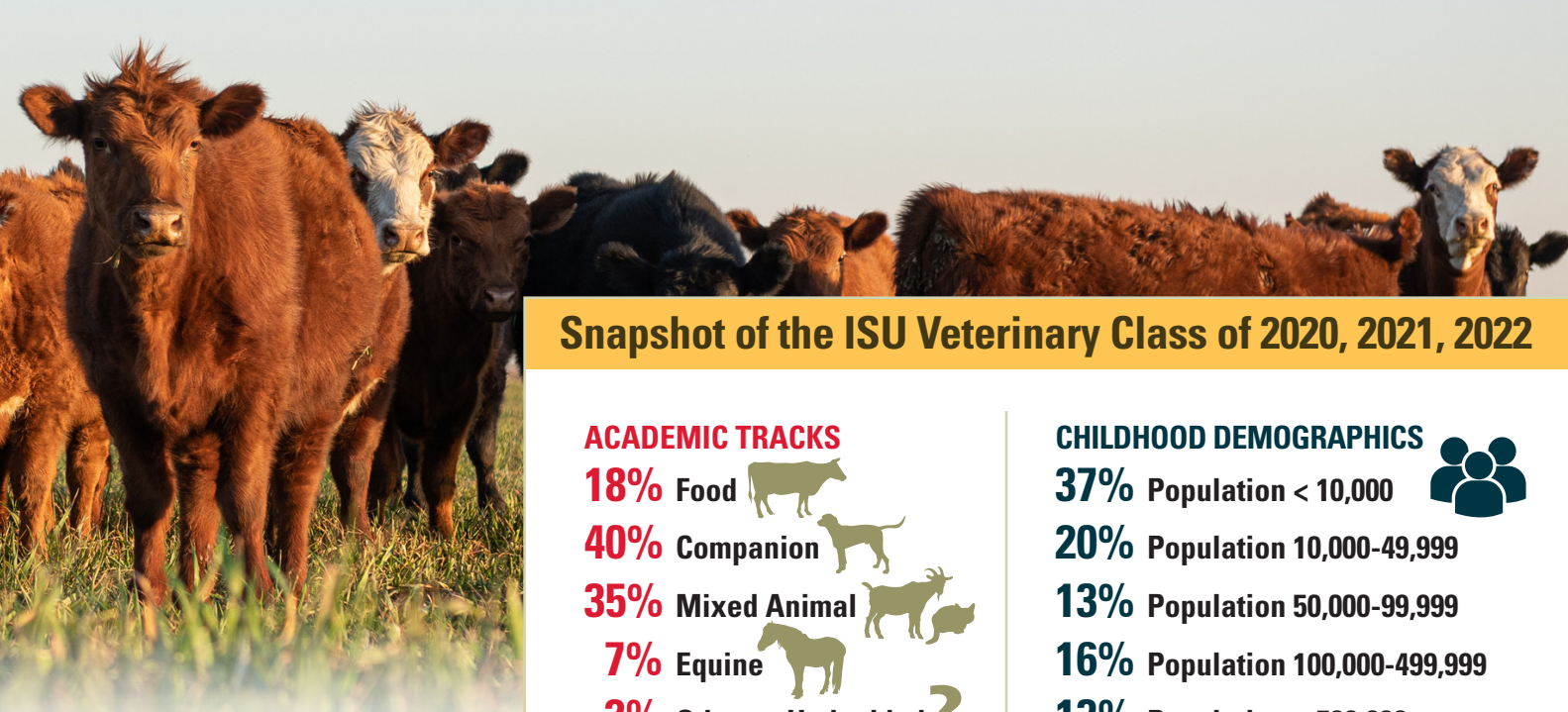
What they discovered mirrored Schmitt's comments. In Iowa over 60% of the veterinary clinics hiring are in communities with a population of less than 10,000. By contrast clinics in cities over 100,000 make up only 10% of the hiring clinics.

A vast majority of the current DVM student population at Iowa State grew up in communities of less than 50,000 people which would lead to the assumption that they would go back to rural communities.

So why the disconnect?






"There are huge myths on both sides," Deaver, a third-year student from Las Vegas, said. "What practitioners think students want and what students think rural clinics are like aren't necessarily true."






## Snapshot of the ISU Veterinary Class of 2020, 2021, 2022

### ACADEMIC TRACKS

- 18%** Food 
- 40%** Companion 
- 35%** Mixed Animal 
- 7%** Equine 
- 2%** Other or Undecided 

### CHILDHOOD DEMOGRAPHICS

- 37%** Population < 10,000 
- 20%** Population 10,000-49,999
- 13%** Population 50,000-99,999
- 16%** Population 100,000-499,999
- 13%** Population > 500,000

Veterinary students Kelsey Deaver and Laura Pelzel served as interns this past summer in the College of Veterinary Medicine's Dean's Office. The pair visited with veterinary clinics across the state while developing a report on the shortage of veterinarians in rural Iowa. Submitted Photos

"Students don't necessarily think of rural practices when they start their job search," said Pelzel, a second-year student from rural Minnesota. "They assume the clinics don't have the facilities or in-house equipment they see in the larger, big city clinics."

In their survey of current Iowa State veterinary students, Deaver and Pelzel found the geographical location and cost of living were not high on students' priority lists. Instead, mentorship, salary and type of practice were the top priorities.

With an average student debt load of \$142,000, Iowa State CVM students may not consider a rural practice because they think they won't be able to make a salary sufficient to pay back their student loans.

But Deaver and Pelzel found out that almost 80% of the veterinary clinics in the state are offering a starting salary of at least \$70,000 a year. And a 2019 AVMA survey of graduating veterinary

### WHAT CVM STUDENTS ARE SEEKING IN A POTENTIAL JOB

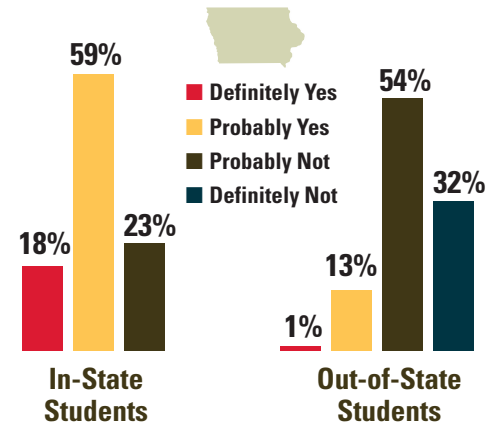
1. Mentorship 
2. Salary
3. Type of Practice
4. Practice Culture
5. Schedule/Hours
6. Geographical Location
7. Cost of Living in Area
8. Benefits Offered
9. Buy-in Potential

students says Iowa State students had an average starting salary of \$79,145, well above the national average of \$70,128.

"Many students' perceptions are that they will make significantly less in rural practices," Pelzel said.

Low salaries are just one of the realities the pair learned about. The potential lack of mentorship opportunities, outdated or non-existent equipment, job opportunities for a significant other or spouse were all concerns mentioned by current veterinary students.

### DO STUDENTS WANT TO STAY IN IOWA AFTER GRADUATION?



A myth also exists that rural practice just means large animals and that small animal medicine doesn't happen in these communities Deaver and Pelzel's research showed that 46% of the clinics hiring in Iowa were small animal exclusive.

There's also the issue of wanting to try something different.

"A lot of rural students we spoke to, especially those from Iowa, want to try something different," Deaver said. "They have the idea that they want to get out and see the world now."



Submitted Photo

*Dr. Erica Koller (DVM '07) is one of many Iowa State veterinary medicine alumni who are working to find solutions to the shortage of veterinarians in rural America.*

A national study has reported that 35% of the respondents have left rural veterinary practices. They cited several issues including salary, practice atmosphere and family concerns but the top two issues were time off and emergency duties.

Long hours was also an issue Deaver and Pelzel discovered in their study.

“Some clinics claim students don’t want to be on-call or work on weekends,” Deaver said, “but the students going into the workforce we spoke with were OK with it within reason.”

The number of hours recent graduates are working has decreased in recent years, which may be contributing to the shortage. In a survey, almost half of respondents from the class of 2012 said they worked at least 50 hours a week. That number dropped to less than 30% of the class of 2017 graduates.

“Students are looking for opportunities with good work-life balance,” Grooms said. “They are willing to work hard, but also value their time off.”

What’s the solution? Schmitt says the USDA NIFA’s Veterinary Medicine Loan Repayment Program is a start. “This federal program is experiencing tremendous success in filling rural veterinary shortages across the country,” he said. “In the last four years alone, this program has supported 20 veterinarians in high-need areas in Iowa.”

Deaver and Pelzel says clinics should be more aggressive in seeking out new graduates. Many rural clinics don’t have a dedicated website, which is the first place today’s students go to find out about the clinic as well as the community. Clinics may also have to develop creative ways to recruit candidates to their practice.

Clinics should also sell small town life. Dr. John Thomson (DVM '67), former dean of the College of Veterinary Medicine, is passionate about rural veterinary practices and what a veterinarian adds to their community.

“Veterinarians bring a lot to rural communities,” he said. “It’s not just treating a sick animal. If you look at a rural community, you will find veterinarians serving on school boards, public health boards, county fair boards, hospital boards, bank boards and other community service organizations.

“These individuals care about their communities and they are providing their skills and talents to the community in ways more than just practicing veterinary medicine.”

Clinics can also learn from their peers including Dr. Erica Koller (DVM '07), who activity promotes the idea of practicing in underserved areas such as her hometown of Edgemont, South Dakota. Her passion for rural

veterinary medicine has evolved into an externship program for veterinary students to experience rural practice settings.

“I felt we were in a really good place to start offering externships,” she said. “My partners and I were younger veterinarians. We had good equipment but we realized there wasn’t a lot of interest in new graduates going out into rural settings.”

Students spend their externship with Koller and her partners almost 24/7. The students stay with the veterinarians’ families by design and necessity since Edgemont’s population is only 900. The externs attend the town’s pot luck dinners and go to local high school football games.

“We want them to see the full lifestyle, how we involve our families and how we prioritize our work-life satisfaction,” Koller says.

Spending the summer engrossed in finding out more about rural practices and their challenges has also affected Deaver and Pelzel.

“Rural medicine, it’s what I know,” Pelzel said. “I like small towns and I want to be a part of the community, become invested in the community and raise a family there.”

Even the big city student and other like her, are now interested in rural veterinary medicine. A recent study showed that 60% of rural practice veterinarians were raised in an urban background.

“Prior to this internship I wanted to go to a larger city to practice,” Deaver said. “Now I might go into rural practice.” **gd**

# Prepared on All Levels

Preparation is key for any endeavor. In order to be prepared to the fullest, Dr. Jaron Naiman, assistant professor of veterinary clinical sciences, has turned to a new technology.

Naiman is an orthopedic and soft tissue surgeon in the Hixson-Lied Small Animal Hospital. About a year ago, he started experimenting with a small 3-D printer to create anatomical models of his patients or rather the parts of his patients he would be operating on.

Using a patient's CT scan, Naiman creates a one-to-one scale model of the animal's body part. By adapting various software programs, including some intended for animation and industrial design to fit his needs, Naiman has created multiple models for both practical and educational uses.

"The hard part is actually cleaning up the CT scan to create the model," he said. "The printing can be done in a day or two."

Because of that time period, Naiman prepares models for surgeries that aren't time sensitive. Once completed he will use the models to achieve three different objectives.

"The primary benefit is that it allows us to look at a model to see what we will be doing in the surgical procedure," he said. "It saves time in surgery because we can plan the procedure on the computer and practice on the 3D printed model as many times as needed until we get the optimal outcome."

But there are other benefits as well. Naiman uses the models to better inform pet owners of what the surgery will actually consist of.

"We use the models to show the owner what the surgery will entail," he said. "The owners have been extremely receptive to this and understand better what we are going to do with their pet."

"It's easier for owners to understand the patient specific anatomy using a 3D model than with 2D images from a CT or radiograph."

Finally, Naiman also uses the model to instruct fourth-year veterinary students who are on surgical rotations.

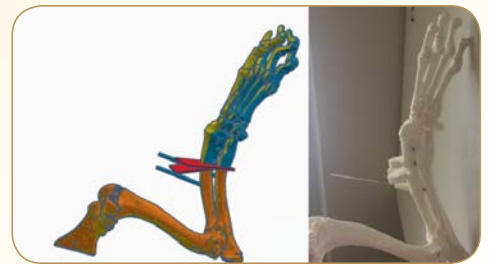
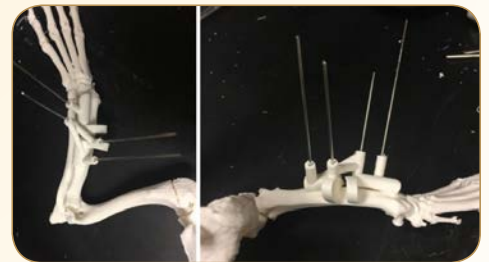
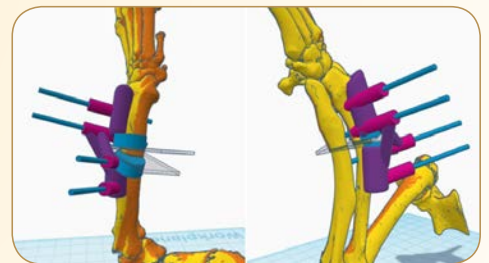
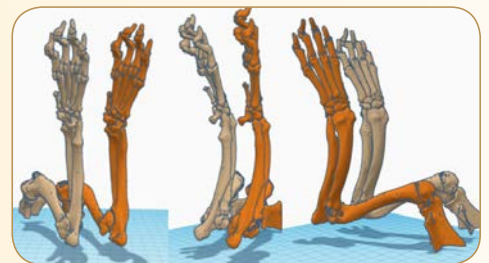
"This is so much better than an image in a book or on a website," he said. "They can actually hold the model in their hands and get a better understanding of the anatomy of the process."

Most of Naiman's patients he has created models for have been dogs, but he has utilized the technology to plan a corrective osteotomy (bone straightening procedure) on a ram in a collaborative effort with the ISU Large Animal Surgery service. The ram went on to win a blue ribbon at the Iowa State Fair after undergoing surgery. He also created a skull model for a pig that had been hit by a truck to help the surgery team plan and prepare bone plates specific to the patient's anatomy prior to surgery. **gd**



Photo: Dave Gieseke

*Dr. Jaron Naiman uses one of the 3-D models he created to instruct fourth year surgical rotation student Brittney Lewis on an upcoming procedure.*





Alumni Steven Falcone, Robin Schroeder, Zachary Badura and Lindsey Wallman received their joint University of Nebraska-Lincoln/Iowa State University diplomas at a reception last September.

# 2+2=Groundbreaking Program

Story and Photos by: Dave Gieseke

There was a time when the Iowa State University-University of Nebraska-Lincoln Program in Veterinary Medicine (PPVM) stood by itself – a unique program in veterinary medicine that benefitted both institutions.

Over the next decade plus, the program has not only matured, but it now serves as a model for other veterinary schools to offer.

“The idea was to develop a partnership that built on the strengths of both schools and both states’ populations,” said Dr. Clayton Kelling, director of the School of Veterinary Medicine and Biomedical Sciences at the University of Nebraska-Lincoln. “For Nebraska that was beef cattle systems and it was swine programs in Iowa.”

On the outside, the PPVM looks like a simple program. Each year,

approximately 26 Nebraska students are admitted to Iowa State’s College of Veterinary Medicine. For the first two years, students attend veterinary classes at the Lincoln campus before they move to Ames to finish their four-year degrees.

It’s a win-win situation for both schools, each state and the Nebraska students, who pay in-state tuition for all four years of veterinary school.

“The state of Nebraska receives a huge benefit with this program,” said Dr. Renee McFee, who serves as the PPVM coordinator. “Our students get to stay in Nebraska not only for those two years, but approximately two-thirds return to practice in the state after they graduate.”

## FIRST OF ITS KIND

The PPVM program started in 2006 and was the first in the nation to offer

such a program. Kelling gives all the credit to the program to Dr. John Thomson, who was serving as Iowa State’s veterinary medicine dean at the time, and to Steve Waller, dean of UNL’s College of Agricultural Science and Natural Resources.

“This was John Thomson’s idea,” Kelling said. “Previously Nebraska had contracts with Kansas State’s College of Veterinary Medicine to send students there for all four years. Over the years, we had contracts with Iowa State, Kansas State, Ohio State, Missouri and Minnesota.”

Enter Iowa State and John Thomson.

An MOA was signed between the two schools in 2006, with the first class starting at Lincoln in the fall of 2007. The idea soon caught on. Similar cooperative programs have been established at Washington State



*The curriculum between the two schools are aligned including this first-year anatomy class at the University of Nebraska-Lincoln.*



University (with Utah State University, Montana State University and the University of Idaho), Colorado State University (University of Alaska-Fairbanks), and the University of Minnesota (South Dakota State University).

## HOW IT WORKS

The first two years of the program's curriculum consists primarily of basic sciences. The Nebraska faculty work hand-in-hand with Iowa State's faculty to make sure that the curriculum, as well as the material being taught, aligns between the two schools.

Faculty share syllabi with each other. The two administrations are in frequent contact to make sure the Nebraska students are getting the same background as their fellow Iowa students.

"We work hard to make sure our students can blend in seamlessly into their third year in Ames," McFee said. "There is communication between the two schools to make sure our (Nebraska) students aren't going to be lost in their third year."

Still there are some differences. Surgery is taught slightly differently. And even instructors at the same institution don't always teach the same subject like a colleague would.

"It's not that much different from having a job in one veterinary clinic and then changing jobs and going to another clinic," McFee said. "Things are going to be different and it's good to learn more than one way to do things."

Classes are more clinically focused in the third year, while the fourth year is dedicated to clinical training. Once the Nebraska students get settled into their new lives in Ames, they quickly notice the difference.

"The biggest difference was the class size," said Nick Schmit, a current fourth-year student from Nebraska. "The classes here are the largest classes I have ever been a part of."

"The other change was having multiple teachers per class. At UNL we typically had one instructor per class. Here we may have multiple teachers writing one test, which can be challenging."

## MAKING THE TRANSITION

McFee admits that there was a learning curve involved with transitioning the Nebraska students to Ames; however, "feedback indicates that students are integrating relatively quickly and smoothly."

That's probably because the University of Nebraska-Lincoln helps their students make the leap. Current third- and fourth-year veterinary students go back to Lincoln and offer suggestions on their experiences.

Those suggestions include tips of where to live, what to expect in their classes and encouraging Nebraska students to join a vet med club immediately in order to get to know the Iowa State students.

"We strive to be aware of the challenges our students face in making the move and help prepare the students for these challenges," McFee said. "We encourage them to become involved in clubs and other activities right away because it's nice to have another cohort of students that they can interact with."



Second-year Nebraska students participate in microbiology class on the Lincoln campus.

Iowa State faculty and administrators have also made the journey to Lincoln to meet with the students. This fall, Dr. Dan Grooms, the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine, and Dr. Jared Danielson, associate dean of academic and student affairs, spoke with the students.

The students were engaged, asking questions about signing up for classes for their third year, next fall's orientation and other issues that will affect them upon their arrival.

Every effort is made to make the students feel welcome in Ames. Schmit says he and his fellow Nebraska students were met with open arms. A special potluck was held, allowing the Nebraska students to meet their new classmates and get started on the right foot.

Schmit also decided to move to Ames over the summer instead of right before the fall semester started.

"Doing this made me more comfortable with Ames as a town," he said. Still there are challenges.

"Some students do face a disadvantage having to pick up and move in the middle of vet school," McFee said. "Nobody likes to move but we try to help with their transition as much as possible."

And once the Nebraska students get to Ames, things seem to work out.

"I think intellectually we are at the same place as the Iowa State students," Schmit said.

## ONE CLASS

The ninth PPVM class that graduated this past May was notable in many ways.

Chief among them is that this marked the first time PPVM students received a joint diploma identifying both Iowa State University and the University of Nebraska.

"The change in the diploma represents the contribution of both universities and it really meant a lot to our program," Kelling said. "It reflects that our students are graduates of the University of Nebraska as well as Iowa State University."

The previous eight PPVM classes that have graduated will also receive individual

joint diplomas recognizing both schools. More than 40 alumni attended an event on the Nebraska campus this past September and were the first alumni to receive the new diploma.

"The joint diploma recognizes the strong partnership our institutions have built and the success the PPVM has in educating veterinary students," McFee said.

The Nebraska students are doing their part as well to recognize the partnership that exists. Attend a class any given day and you'll see lots of Nebraska clothing being worn. But almost as many Iowa State shirts can be seen as well.

Making the two programs one has been critical in making the nation's first PPVM program a model for other veterinary schools and universities to follow.

"I believe we have shown this to be a successful model, otherwise no one else would have been interested in developing a similar program," McFee said. "Both administrations have worked well together."

"If that didn't happen this experiment would have failed a long time ago." **gd**



*Fourth-year Nebraska students complete clinical rotations including Chelsea Burr (left) in equine and Jessica McManigal in ophthalmology.*

## A Head Start

After spending six years at the University of Nebraska-Lincoln, Alissa Martindale was a little apprehensive about moving to Iowa State University for her final two years of veterinary school.

Iowa State and the University of Nebraska offer a program where Nebraska students are admitted to Iowa State but complete the first two years of the veterinary curriculum at the Lincoln campus before spending the final two years in Ames.

Martindale decided to get a head start on what life would be like in her new community by spending the summer in Ames.

"I wanted to get situated here before classes started," said Martindale, who also holds a bachelor's degree from the University of Nebraska-Lincoln. "So I decided to participate in the Summer Scholars Program."

Martindale spent the summer researching the correlation of intraoperative antibiotic administration with hypotension with Dr. Eric Zellner, assistant professor of veterinary clinical sciences. The Summer Scholar Program introduces veterinary medicine students to research in a wide array of areas as they investigate specific issues that match their interest and the work of an established researcher.

Martindale's summer research project looked at the effects a drug has on blood pressure in dogs during surgery. The drug is used to prevent bacterial infections and when the project is complete, Martindale hopes to look at the results from 150 patients.

"Our preliminary results show that we haven't seen any statistical differences in blood pressure rates of patients receiving the drug during surgery," she said.

The Summer Scholar Program not only gave Martindale a head start on living in Ames but experiencing what life will be like in the College of Veterinary Medicine her final two years.

"I'm really glad I picked this clinical trial study," she said. "I got to see what a fourth-year student does on a daily basis and get a feel for what my fourth year will be like."

Just as valuable though was the time she spent at Iowa State and Ames getting familiar with the college and community. Martindale had a built-in advantage, rooming with her younger sister who is a sophomore and plays on the Cyclone women's soccer team.

"I always lived on campus at Nebraska, so living off-campus here was a shock in itself," Martindale said. "I had to learn everything all over again – where to shop

for groceries, where to do laundry at, where to go out to dinner at."

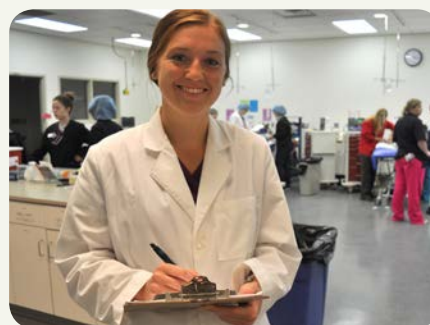
To become even more familiar with the Ames community, Martindale and her sister got part-time hosting jobs at Hickory Park.

"That was a good decision," she said. "Not only did I make a little extra money but I met people there I wouldn't have otherwise."

And once her Nebraska classmates started to arrive in Ames, she was able to show them the ropes.

"But I think their arrival helped me out as much as I helped them," Martindale said. "Having all my Nebraska classmates here now makes it feel a little more like home."

"Spending the summer in Ames was the right decision. It has helped me a lot."





Layla spent months in the Hixson-Lied Small Animal Hospital ICU recovering from her burns. Her ICU care team held a going-away party for her when she was finally discharged.

# The Long Road to Recovery

Story and Photos by: Dave Gieseke

**W**hen Layla, a three-year-old FS Pitbull, was admitted to the ICU in the Hixson-Lied Small Animal Hospital in last April, the clinicians and students were understandably stunned.

Five days earlier, Layla had suffered accidental burns over 50% of her body.

“It was very shocking to see just how much tissue was gone from Layla,” said Haley Holbrook, a fourth-year veterinary student who was on the ICU rotation when the dog was first presented to the Iowa State team.

Dr. Rebecca Walton, clinical assistant professor and a member of the Hixson-Lied Small Animal Hospital’s Emergency Critical Care team, was on duty that day and remembers being surprised at how stable Layla was despite her massive injuries.

“It was pretty amazing how well she was doing with what all she went through,” Walton said.

Walton says the Iowa State team didn’t know the full extent of the dog’s injuries when she was first presented. Layla had been stabilized and cared for by her local veterinarian before she was referred to Iowa State.

The burns led to severe systemic complications including infection and organ failure. That is in addition to the required procedures and surgeries needed to manage the burned areas.

This was new territory for Walton, Holbrook and the rest of the Iowa State team. Management of burn cases in veterinary medicine are limited due to the lack of cases, severity of the injury and cost associated with their treatment. Most of the literature on animal burn victims is limited to wildfires.

“This is our first burn case at Iowa State since Dr. (April) Blong and I have been here,” Walton said. “We’ve consulted with the burn unit in Iowa City and Dr. (Megan) Mickelson spoke with a surgeon at Michigan State University to seek out the best care for Layla.

“None of us have done bandages like this on a dog before.”

Even with 24-hour care, it was a long road to recovery for Layla who wound up spending months in the ICU before being discharged to her owners in the Quad Cities area. Even then, she faced a long rehab, additional surgical procedures including skin grafts and multiple trips back to Ames and her caring team of veterinarians.

The fact that Layla recovered at all and the extent of her recovery has surprised even her caregivers.

“When Layla was first admitted her prognosis was guarded at best,” said Blong, ICU criticalist. “Initially we thought we would have to amputate a leg and her tail.”

When Layla was discharged in early July she left with that leg and her tail. And all but 10% of her body remained unhealed.

“Literally every time we changed her bandages we saw improvement in her wounds,” Blong said. “Eventually it will all heal.”

“Sweet Layla” as she is known to the Hixson-Lied staff has undergone several major surgeries and countless procedures. It would take up to four staff members close to an hour to initially bandage her wounds, a procedure that occurred every couple of days.

Even though she headed home, Layla has had to return to the hospital frequently for new bandages and checkups. Although she wants to be a normal dog again, Layla must be kept calm until her injuries are fully healed.





Layla's journey to recovery was one of dedication and determination by not only the ICU team, but her owners and Layla herself.



"Layla such a social dog that was a challenge at times," Blong said. "We just wanted to keep her calm and quiet so that she could continue to heal."

Layla's treatment hasn't come without a cost. Her owners have set up a Go Fund Me account and have received donations from numerous individuals, organizations and companies. Firms have also donated experimental items to help with her skin graft operations.

This case has served to not only endear the Hixson-Lied staff to Layla but has offered a once-in-a-lifetime learning experience, for students, faculty and staff alike.

"This has been a very challenging and unusual case," said Mickelson, Hixson-Lied surgeon, who has served as the primary surgeon in Layla's case, "but the owners have been very cooperative and open to our care suggestions."

Cassandra Billingsley, Layla's owner, was on hand to take her pet home. Billingsley and her family traveled to Ames several times to visit Layla during her hospitalization. She was excited and anxious at the same time about Layla going home.

Layla's departure from the ICU was bittersweet for Walton, Blong, Mickelson and the numerous other staff members who have cared for the dog. The team held a party for Layla before Billingsley's arrival. The party was complete with congratulations balloons, party hats and a cake.

"We couldn't have asked for a better team to take care of Layla," Billingsley said. "She is so loved here."

"It's like she's their own dog."

"We are invested in all of our patients and we give our best care to everyone," Walton said. "However, Layla is special due to the severity of her injury. Despite the critical illness and severe pain, Layla is a fighter and has the sweetest disposition. She continued to offer us a kiss and comfort in our emotional moments as we fought for her life."

"Layla has a lot of life in her," Holbrook said.

That, along with the tremendous support of her owner family, made the long hours and frustrating moments worthwhile for the Iowa State team.



*"We couldn't have asked for a better team to take care of Layla."*

*– Cassandra Billingsley, owner*

"The owners looked out for what was best for Layla," Walton said. "We have a good relationship with them and were up front and honest about her care and treatment." **gd**

## POPULATION-BASED DIAGNOSTICS PINPOINT THE POWER IN NUMBERS

The world of diagnostics is expanding. Instead of focusing on individual animals, population-based diagnostics help veterinarians and producers identify the health status of their barns quicker and efficiently.



**Dr. Jeff Zimmerman**, professor of veterinary diagnostic and production animal medicine, is helping pave the way for this trend. His development of the use of oral fluids and processing fluids has allowed tests to be adapted for aggregate samples.

“The population diagnostics we were using in the 1980s and 1990s don’t apply very well in our larger population,” Zimmerman told *Pig Health Today*. “By that I mean, as we get bigger systems with more buildings and more pens, randomly sampling 30 pigs doesn’t work anymore.”

## GAUGER RECEIVES ZOETIS AWARD FOR VETERINARY RESEARCH EXCELLENCE

**Dr. Phillip Gauger**, associate professor in veterinary diagnostics and production animal medicine, has been honored with the 2019 Zoetis Award for Veterinary Research Excellence at Iowa State.



An internationally renowned expert in swine viral diseases, Gauger has developed a reputation for quickly identifying and advancing knowledge on emerging viral diseases of pigs (porcine epidemic diarrhea virus and Senecavirus); and poultry (Highly Pathogenic Avian Influenza).

## CVM SELECTED TO PARTICIPATE IN ONCOLOGY TRIAL CONSORTIUM

The National Cancer Institute (NCI) has selected the College of Veterinary Medicine to participate in a clinical program as part of the NCI Comparative Oncology Trial Consortium (COTC).

The clinical trial will use dogs as a model for human research as Iowa State oncology researchers look at a new investigational drug for cancer therapy. The COTC operates as a platform for collaborative work between the NCI and extramural academic comparative oncology centers to design and execute clinical studies in dogs with cancer.

“This places us in a different league in regards to clinical trials,” said **Dr. Jon Mochel**, associate professor in the Departments of Biomedical Science and Veterinary Diagnostic and Production Animal Medicine. “This trial will more than likely lead to other trials for us.”

## CFSPH RECEIVES GATES GRANT

The Center for Food Security and Public Health in the College of Veterinary Medicine has been awarded a grant from the Bill & Melinda Gates Foundation for a two-year project to improve veterinary services in developing countries.

The project involves creation of a digital platform to house educational resources and teaching tools for use by veterinary faculty around the world.

The CFSHP will work with The Ohio State University College of Veterinary Medicine/College of Public Health and Massey University (New Zealand) School of Veterinary Science and Institute of Education to identify and address the issues of quality veterinary teaching and learning. The U.S.-based partners will develop and populate a digital platform with teaching tools and resources. These will align with a number of core competencies that are designated by the World Organization for Animal Health (OIE) as being essential for new veterinary graduates.

## BETTER NUMBERS, BETTER SOLUTIONS

Two years into his doctoral program in the College of Veterinary Medicine, **Cesar Moura** has conducted several studies on epidemiological and immunological solutions for PRRS virus control. His preliminary results have already motivated production systems to reassess and modify their vaccination protocols for PRRS, targeting better return over investment.

One example is a single versus double MLV dose program on growing pigs.

“We have seen significantly improved results of the double-dose protocol, especially on reducing mortality of pig groups from PRSSV stable and unstable sow farms,” Moura said.

Another example is his work with full PRRS MLV vaccination dose versus partial dose on growing pig populations.

“In scenarios where the pigs are placed in high-dense areas, where they’re more likely to be exposed to the field virus, we are seeing that a full dose of MLV brings production benefit through average daily gain and feed conversion. We have also conducted economic models, and have seen that the extra half-dose of vaccine is significant,” Moura said.



# Switching Gears

**A**manda Kreuder's career path seemed pre-ordained. An undergraduate degree in dairy science, followed four years later with a DVM with a large animal focus. Her first jobs out of vet school trended towards large animal medicine and later she completed a residency in food animal medicine and surgery at Iowa State and became boarded in large animal internal medicine.

After joining the faculty in the Lloyd Veterinary Medical Center, Kreuder taught food animal medicine classes, everything from advanced dairy production medicine to ultrasound techniques and small ruminant medicine.

Along the way though Kreuder continued to go to school, eventually earning a PhD in veterinary microbiology and her interest soon shifted to include the cutting-edge research in combination with her clinical duties in large animal medicine.

This past summer, Kreuder switched her career path away from food animal medicine. She accepted a new position in the College of Veterinary Medicine with a focus on antimicrobial resistance (AMR) research, teaching and service. In this position, she will continue to use the skills learned as a large animal internist to help direct the college's mission to promote antimicrobial stewardship.

"I'm excited to be able to make a broader difference than I have been before," Kreuder said. "I loved being a large animal veterinarian and working closely with producers to improve the health of their herds and I will miss that aspect of being a clinical veterinarian in my new role.

"But the opportunity to make an impact on AMR and advance the knowledge of that field in research and extension was something I couldn't pass up."

In creating Kreuder's position, Dr. Dan Grooms, the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine, hopes to leverage the newly-established National Institute for Antimicrobial Resistance Research and Education (NIAMRRE) at Iowa State, along with other college programs including the One Health initiative to address important societal problems.



*Amanda Kreuder works in her lab with a pair of African scholars, Augustina Sylverken and Frida Mgonja. The pair are currently spending the year in the College of Veterinary Medicine.*

*Photo: Dave Gieseke*

In her new role, Kreuder will further AMR research and promote antimicrobial stewardship in the college's teaching and service enterprises by working closely with NIAMRRE. A majority of her appointment will be devoted to research and scholarly activity although she will continue to have teaching and professional practice responsibilities.

"I will be expanding my research program considerably with this new position although a lot of my of research has a human health or One Health aspect to it already," Kreuder said. "I'll not just be looking at bacteria and why it acquired the resistance but other things we can do to eliminate the needs for antibiotics."

Kreuder freely admits that being the first person to hold this position at Iowa State is a "little bit scary" but that it's exciting to build a program from the ground up.

"My training has been such that I believe I can effectively understand both the clinical side and the research side of the AMR issue," she said. "I hope to be able to leverage their (NIAMRRE's) resources and build upon the program already established here in the college while increasing awareness substantially." **gd**



## Trackside

Photos: Dave Gieseke

If there is a significant horse race in the state of New York, you can bet Dr. Anthony Verderosa (DVM '87) will be there.

As the chief examining veterinarian of the New York Racing Association, Verderosa and his staff enforce the rules of racing and decide which horses can compete. That includes the Belmont Stakes, the third leg of horseracing's Triple Crown series, and The Travers, a major stakes race held at Saratoga, the nation's oldest race track.

Each year Verderosa splits his time between race tracks at Belmont, Saratoga and Aqueduct, overseeing the racing seasons at each location. In addition to the Belmont Stakes, there are 35 racing days in both the spring and fall at Belmont outside of New York City, while the season lasts eight weeks in the summer at Saratoga. There's six months of racing at Aqueduct with approximately 100 days of competition.

Verderosa has been with the New York Racing Association for over 20 years, becoming the track's leading veterinarian

in 2005. On a typical day, he and his team will each pre-race examine up to 30 horses well before patrons make their way into the grandstands.

"We determine to the best of our abilities if a horse is sound enough to race," Verderosa said. "We're out there rain or shine. It takes us about five minutes to conduct the pre-race exams and we conduct the same exam if it's the first race of the year or if it's the Belmont Stakes.

"Sometimes trainers will argue with you if we need to scratch a horse, but we make the ultimate decision if a horse races or not. We don't scratch a horse unless we have a valid reason."

But their day doesn't end there. The veterinarians make their way to the track where they will stay through the day's racing schedule. Verderosa oversees a trackside equine ambulance.

"If an injury occurs on the track, we stabilize the horse as quickly as possible before moving it back to the barn area," he said.

Due to these precautions, the three New York horse tracks have the lowest injury rate in the country.

The Belmont Stakes and The Travers are national events, but Verderosa says he and his staff treat each race the same.

"We give no more or less scrutiny to the horses in the Belmont Stakes or The Travers than any other race," he said. "Stakes days are a bit longer and the crowds are much bigger, but it's just another day for us."

This is a much different job than Verderosa's previous positions. After graduating from Iowa State, Verderosa worked for an equine practitioner in Kentucky and had his own equine practice in the Miami area before moving back to his native New York.

"The scope of what we do at Belmont, Saratoga and Aqueduct is a little different," Verderosa said. "We don't have 24-hour days, generally no late night emergencies.

"It's been a great job being able to work at these tracks." **gd**

Photos: Heather Loenser



## ON AIR *with Heather Loenser*

One day Dr. Heather Loenser was doing what most of us do on a daily basis.

But unlike most of us, checking her Facebook page in her New Jersey kitchen literally changed the 2003 Iowa State DVM graduate's career focus.

"There was a post looking for a female ER veterinarian with surgical experience for a reality television show," Loenser related years after that fateful day. "I thought, 'I've been an ER vet for 10 years. I have strong surgical skills since I was trained well at Iowa State. Why not me?'"

Loenser went through the application process. She got publicity photos taken and working with a videographer, she shot "A Day in the Life of an ER Vet." She submitted the audition tape.

And then nothing.

"I never heard back so I emailed them," she said. "Turns out the network decided not to go forward with the show."

So how did this switch Loenser's career path away from working as an ER vet? Seems the audition tape came to the attention of a television producer who booked guests in the New York City area for local and national shows. A guest had cancelled for "Fox and

Friends" at the last minute. Loenser got a call to see if she could show how to do CPR so that viewers at home could do it on their pets.

Oh, and they also wanted two other medical procedures owners could do on their pets. And all three had to be done in a three-minute segment.

"I said, sure, so I brought CPR dog dummies to the set in New York. I also decided to bandage a foot and show how to wrap a chest wound with plastic wrap to try to prevent a tension pneumothorax so an owner could rush them to a vet," Loenser said. "I did the show and thought it would make a fun cocktail party story I could tell."

The cocktail story Loenser tells now is even better. Soon she was getting other gigs. Martha Stewart called. She continued doing segments for "Fox and Friends," more than 25 in all. She appeared on "The Today Show" and "Regis and Kelly."

Loenser developed a great working relationship with the television producer, took a crash course on media training that augmented her ISU Theatre experience and developed a good pitch for stories. One of the most popular was the different ways your pet can be injured around a holiday.

"Name a holiday and I can tell you the dangers to pets of those holidays," Loenser said tongue in cheek. "We did Christmas – tinsel; Valentine's Day – dark chocolate; St. Patrick's Day – raisins in Irish Soda Bread!"

Her appearances on television soon led to another job – this one with the American Animal Hospital Association (AAHA). Loenser was originally on the AAHA Board of Directors before she moved onto the organization's staff fulltime as a senior veterinary officer.

Loenser continues to do television segments – she recently was on Dr. Oz and the "Today Show." But her job has morphed, working with AAHA conferences and guidelines in addition to her public relations responsibilities.

And although the reality show didn't pan out, Loenser doesn't have any regrets.

"I applaud the vets that do practice high-quality medicine on TV. I just wasn't comfortable with the lack of control of constant filming. It's the perfectionist in me, I guess," she said. "With AAHA, I can contribute to the profession, pets and their people in a different way."

"I'm proud to say that the television segments I've done have been solid medically." **gd**

## ALUMNI AWARD FEATURES

# TRUE & VALIANT

This Homecoming, the College of Veterinary Medicine recognized six individuals with alumni and service awards.

These individuals are just a small example of the college's alumni and friends who have made the world a better place.

Read their full stories online at [vetmed.iastate.edu/true-valiant](http://vetmed.iastate.edu/true-valiant)



Submitted Photo

### **Dr. Bruce Stewart-Brown ('85)** **Stange Award**

Dr. Bruce Stewart-Brown has changed the way the poultry industry raises chickens. But that road hasn't been all that easy. Early in his tenure at Perdue Farms, Stewart-Brown suggested that the company work on having "happy chickens," a comment met with a great deal of skepticism. Stewart-Brown worked hard to win over the skeptics because as he puts it... "a happy chicken is a more efficient chicken that produces a better quality product." When he first made that suggestion, all of Perdue's birds received antibiotics. Today that figure is only about two percent. "We weren't the first company to forgo using growth promotion and preventive type antibiotics but we were the first large scale production company to do so," he said. "We did it and we did it the right way."

### **Dr. John Greve (professor emeritus)** **Switzer Award**

A fixture in the College of Veterinary Medicine's classrooms for 36 years, Dr. John Greve's service to the veterinary pathology profession and to Iowa State is legendary. He made parasites a must-attend class for generations of veterinary students and held classes spellbound with his "Words for Nerds" course, by incorporating a popular '60s song, "Groovy Grubworm" into his class presentation on maggots and his "Demodex Dance," where he physically portrayed how the parasite would look under a microscope. "I had fun teaching so I wanted to make it fun," he says. "Each parasite has its own personality and we discovered that personality as a class."



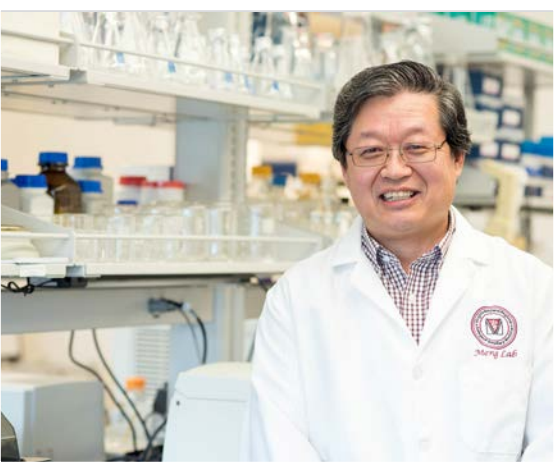
Photo: Heather Brewer



Photo: Bob Elbert

**Lora & Russ Talbot (2017 honorary)  
Switzer Award**

The story is almost folklore in the College of Veterinary Medicine. It's a story of how two individuals, Lora and Russ Talbot, who had no prior connection to Iowa State University, have come to be two of the most dedicated and fiercely devoted Cyclones on the planet. So much so that they consider Iowa State their second home and describe their association with the University as volunteers, supporters, cheerleaders and donors. "We support and get involved with organizations and activities that align with and share our values of working for the greater good and having a positive impact," Russ Talbot said. "Volunteering keeps us grounded and we continually learn new things and expand our understanding of others."



Submitted Photo

**Dr. Xiang-Jin Meng (PhD '95)  
Lorriane J. Hoffman Graduate Alumni Award**

To be the inaugural recipient of any award, you have to have a special career. In the case of Dr. Xiang-Jin Meng that would be an understatement. Meng is a recognized global expert on emerging and zoonotic animal viruses. His research has had a significant global impact on veterinary medicine and public health. His contributions include the discovery of swine hepatitis E viruses (HEV) from pigs and avian HEV from chickens as well as demonstration of cross-species and zoonotic infection by HEV. A career so impressive that he has been elected to both the National Academy of Sciences and the National Academy of Inventors. "Indeed, my training background is somewhat unorthodox," Meng said. "I thought the best way to utilize my unique training was to conduct biomedical research in the field of comparative medicine. In this way, I felt I could contribute to both human and veterinary medicine in a meaningful way."

**Dr. Tamara Hancock ('11)  
Outstanding Young Alumni Award**

It happened during orientation, just days before Tamara Hancock started veterinary school at Iowa State. "We were asked to write letters to our future self," she recalled. "I wrote that I wanted to be an emergency veterinarian and help animals and their owners." Less a decade later, Dr. Tamara Hancock won't be found working overnights in an emergency veterinary clinic. But she's making a major impact nonetheless. As the coordinator for curriculum and student outcomes with the College of Veterinary Medicine at the University of Missouri, Hancock has focused her efforts on improving awareness of the mental health needs for veterinary medicine students, channeling her concern and passion for the well-being of veterinarians into a role that she is uniquely qualified for.



Photo: Dave Gieseke

## One Health Visionary Receives AVMA Award

**Dr. Roger Mahr** ('71) started his term as AVMA president with a vision for an initiative to increase collaboration in the fields of animal, human and environmental health – leading to the chartering of the One Health Commission in 2009.

Mahr's vision was recognized this past summer when he received the AVMA Award for contributions to the advancement of veterinary medicine in its organizational aspects.

"Dr. Mahr is a consummate veterinarian," said Dr. Ronald E. Gill, member of the AVMA Board of Directors who nominated Mahr for the award. "His quiet demeanor can fool those who are not familiar with his 'can do' determined attitude that he applies to all he cherishes. This included his family, community, colleagues and veterinary profession. He credits the support of others for all that he has accomplished in his career. Those who know him acknowledge the positive changes that he has made in their lives, careers and the veterinary profession."

A longtime small animal practitioner in Illinois, Mahr served as AVMA president in 2006-07. In his speech to the AVMA House of Delegates before assuming that role, he said, "Animal health is truly at a crossroads. Its convergence with human and ecosystem health dictates that the 'one world, one health, one medicine' concept must be embraced. We need our colleagues in human medicine, public health and the environmental health sciences.



"Together, we can accomplish more in improving global health than we can alone, and we have the responsibility to do so."

The AVMA One Health Initiative Task Force led to the chartering of the One Health Commission in 2009, with Mahr as executive director, a position he held for three years.



### AVMA RECEPTION

*The College of Veterinary Medicine hosted an alumni reception during the AVMA Convention in Washington D.C. in early August. The reception was attended by 100 alumni, donors and faculty. Photos: Dave Gieseke*

## Mark Your Calendars for These Upcoming Alumni Receptions



### Sunday, January 19, 2019

VMX Conference  
Itta Bena Restaurant  
9101 International Drive  
Orlando, Florida  
7-9 p.m.

### Monday, February 17, 2020

Western Veterinary Conference  
Hussong's Cantina Banquet Room  
The Shoppes at Mandalay Place  
3930 S Las Vegas Blvd, Suite 102  
Las Vegas, Nevada  
7:30-9:30 p.m.

### Thursday, January 23, 2020

Nebraska VMA Conference  
Embassy Suites Hotel  
Lincoln, Nebraska  
7-9 p.m.

### Friday, August 1, 2020

AVMA Convention  
Site TBD  
San Diego, California  
7-9 p.m.

## In Memoriam

Notices of recent deaths are available online at [vetmed.iastate.edu/alumni/memoriam](http://vetmed.iastate.edu/alumni/memoriam).

If you know of a recently deceased CVM alumnus, faculty or staff member please send the notice to [dgieseke@iastate.edu](mailto:dgieseke@iastate.edu).





## HONORS AND AWARDS

- **Dr. Joseph Bender** (2010), assistant professor of clinical dairy production medicine at the University of Pennsylvania's College of Veterinary Medicine, has been presented with that college's 2019 Zoetis Distinguished Teacher Award.
- **Dr. Cathleen Mochal-King** (2005), associate clinical professor at Mississippi State University's College of Veterinary Medicine, has been named the college's first Terri Nusz Endowed Equine Professor. She also was named the North American Veterinary Conference VMX 2019 Equine Speaker of the Year.
- Three College of Veterinary Medicine alumni have been honored by the South Dakota Veterinary Medical Association. **Dr. Steve Tornberg** ('79) has received the SDVMA Distinguished Service Award, while **Dr. Dale Miskimins** ('78) was named Veterinarian of the Year. **Dr. April Schilder** (2014) was given the Emerging Leader Award.
- **Dr. Amy Vincent** (2002), a medical veterinary officer with the Agricultural Research Service (ARS) National Animal Disease Center in Ames, received the Arthur S. Fleming Award for her outstanding scientific achievements in animal health. She is one of 12 Federal employees who were honored with the Fleming Award.
- **Dr. William Liska** ('73) and **Dr. Ronald Kohlmeir** ('68) have both been presented with the Albert Nelson Marquis Lifetime Achievement Award from *Marquis Who's Who*, the world's premier publisher of biographical profiles.
- **Dr. Paul Thomas** (2013) has been named the 2019 Young Swine Veterinarian of the Year by the American Association of Swine Veterinarians. Thomas is an associate veterinarian for AMVC Management Services in Audubon, Iowa.
- **Dr. Robert Youngquist** ('71) has received the Career Excellence in Theriogenology Award from the American College of Theriogenologists. Youngquist served as a professor and as acting chair of the Department of Veterinary Medicine and Surgery and was associate dean of academic affairs at the University of Missouri College of Veterinary Medicine.
- **Dr. Bob Glock** ('61; PhD in veterinary pathology '71) has been inducted into the American Association of Bovine Practitioners' Cattle Veterinarian Hall of Fame.
- **Dr. R. Bruce Heath** ('62) received a lifetime achievement award from the College of Veterinary Anesthesia and Analgesia.
- Three College of Veterinary Medicine alumni have been recognized by the Iowa Veterinary Medical Association. **Dr. Jessie Juarez** ('14) was presented the Rising Star Award. **Dr. Dennis Drager** ('85) received the Veterinarian of the Year Award, and **Dr. Darwin Schipper** ('71) was presented with the President's Award.
- The Iowa Veterinary Medical Association has announced its 2019-20 officers. **Dr. Amanda Fales-Williams**, chair of the Department of Veterinary Pathology, is the president. Other officers are **Dr. Jim Berger** ('88), president-elect; **Dr. Brenda Bright** ('89), vice president; and **Dr. Randy Ackman** ('89), past president.
- **Dr. Jaime Kirkpatrick** ('05) has been named the AAFSPHV Food Safety Veterinarian of the Year.
- **Dr. Jack Shere** ('87) and **Dr. Kelley Donham** ('71) have been presented the Karl F. Meyer-James H. Steele Gold Headed Cane Award by the American Veterinary Epidemiology Society.
- **Dr. Daniel "Jack" King** ('61) has been named to the American Association of Avian Pathologists Hall of Fame.
- **Dr. Dustin Loy** ('09), molecular diagnostician in the Nebraska Veterinary Diagnostic Center and faculty member in the School of Veterinary Medicine and Biomedical Sciences, has received the Excellence in Diagnostic Microbiology Award from the American Association of Veterinary Laboratory Diagnosticians.

### Alumni E-Newsletter

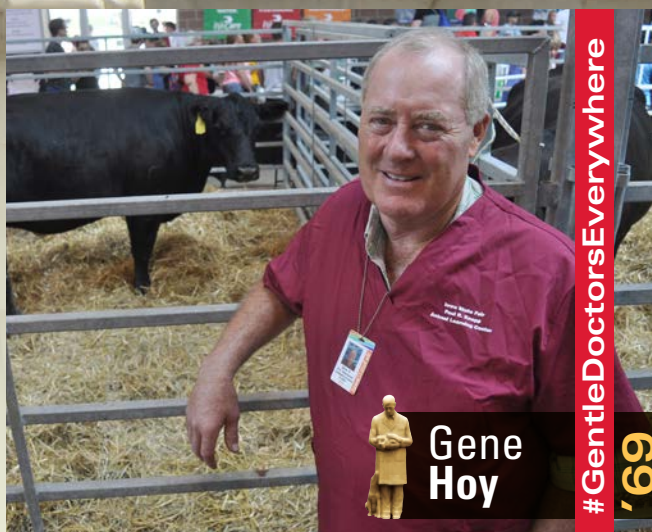
Can't wait until the next *Gentle Doctor* magazine hits your mailbox for news about the College of Veterinary Medicine? Then check out the college's monthly alumni e-newsletter.



CVM Alumni News features news and updates from the college including alumni events, features on CVM alumni and notices of recent deaths.

If you don't currently receive the CVM Alumni News please send your e-mail address to [dgieseke@iastate.edu](mailto:dgieseke@iastate.edu).

# #GentleDoctorsEverywhere



#GentleDoctorsEverywhere '69

## State Fair Fixture

When the calendar turns to August, family, friends and neighbors know where to find Gene Hoy. For the past 11 Augusts, Hoy has directed the activities at the Animal Learning Center at the Iowa State Fair. The popular exhibits in the building feature live births of pigs, cows, sheep, goats – you name a farm animal outside of a horse and chances are you can see a baby during your visit to the fair. “As long as we have babies to look at people are happy,” Hoy says, “although sometimes we have 250 people watching a live birth.”



#GentleDoctorsEverywhere '92

## Novelist & Artist

Candace Carter always liked to write, but as a student, she was more focused on art and drawing. In fact, she did a cover design for the “ISU Veterinarian” when she was a veterinary student. It wasn’t until 2001, when she began working for the U.S. Department of the Interior, that she got serious about writing. “When I joined a writers critique group, that’s when I really began to learn the craft of writing,” said Carter. Recently Carter was honored with the Carrie McCray Memorial Literary Award from the South Carolina Writers Association in Novel First Chapter. Carter began writing the novel, “Muddy Waters,” ten years ago. Carter is on medical retirement from the National Park Service.



#GentleDoctorsEverywhere '03

## Best Advice Ever

A Diplomate in two large animal areas with a DVM not only from Iowa State, but a completed residency at Purdue University, Josh Zacharias is uniquely trained to be an equine veterinarian. But it is another skill Zacharias honed at Iowa State that sets him apart. In addition to his veterinary credentials, he is a farrier with 15 years of experience in therapeutic shoeing applications. He decided to attend the Kentucky Horse Shoeing School after being advised to do so. “That was the best advice I ever got,” Zacharias said. “I took up shoeing because I wanted to be a better vet.”

## Follow ISU CVM Alumni Career Accomplishments

View full stories at [vetmed.iastate.edu/gentledoctorseverywhere](http://vetmed.iastate.edu/gentledoctorseverywhere)



Carol Meteyer

#GentleDoctorsEverywhere '83

### Finding the Pattern

*From white-nose syndrome to bringing a population of vultures back from virtual extinction, Carol Meteyer's work has helped find the causes of serious wildlife diseases. Her work with white-nose syndrome led to a screening process for humans entering any cave in the United States. And her discovery that a drug used in cattle had caused 99% of Pakistan's oriental white-backed vulture population to die led several nations in the India sub-continent to ban the drug allowing the vulture population to return to normal. "I always followed my opportunities even if the opportunity didn't seem to be my passion at the moment," she says. "As long as it was intellectually stimulating that was what drove me."*



Daniel Edge

#GentleDoctorsEverywhere '03

### Finding His Voice

*Today Daniel Edge diligently works with the LGBTQIA veterinary community to make sure veterinary students have the support necessary to be themselves. It's a commitment Edge not only has made to students, but to himself. "I made a commitment to myself that when I interviewed for a job I would be proactive and tell my prospective employers I was gay," said Edge, who serves as director of medical affairs with Zoetis. "I'm going to have my family's picture on my desk and not worry about it. If my family was an issue with an employer, then I didn't want to work there."*



Inbal Lavotshkin

#GentleDoctorsEverywhere '11

### Keeping NYC's Animals Safe

*Inbal Lavotshkin works tirelessly for New York City's animals. Her South Brooklyn clinic, where she serves as the medical director, is the only 24-hour hospital serving a large portion of Brooklyn. So "there's no normal day" for Lavotshkin. "Our doors are always open," she says. "We get patients from local shelters and the NYPD will bring us animals – strays that need shelter or dogs that have been involved in fights." Lavotshkin's dedication to New York City's dogs and cats was recently recognized when she became the first veterinarian in the nation's largest city to be honored by the ASPCA.*

# #GentleDoctorsEverywhere



#GentleDoctorsEverywhere '02

## Changing Behavior

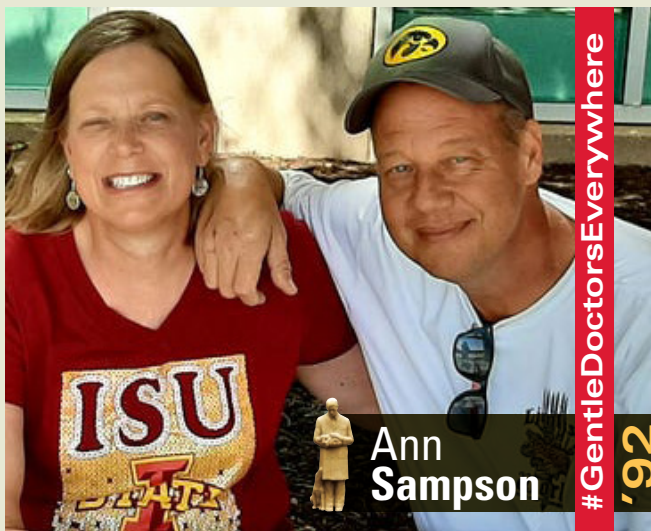
*E'Lise Christensen always knew she wanted to be a veterinarian behaviorist. "I had a long-term plan early in my life and always approached my education very specifically." Now Christensen owns two veterinary clinics – one in the Denver suburbs and the other in the heart of New York City. At both locations, she works with pet owners, educating them on pet behavior. "By the time owners come to us, things are pretty bad," she said. "It's a very difficult situation. When someone gets a pet, the last thing they expect to have a problem with serious behavioral symptoms. But I know they truly love their animal because they came to us."*



#GentleDoctorsEverywhere '88

## Veterinarian Story-Teller

*Jeff Wells says he would have been voted the last person in his high school class to write a book. Wells not only wrote a book – he's written three about his experiences as a small and large animal veterinarian. "The stories are real life – my life," he said. "It wasn't hard to write down, the hard part was thinking who I was writing to." Two of his books, "All My Patients Have Tales" and "All My Patients Kick and Bite," contain a series of charming, funny and engaging stories from his Colorado practice. Everything from treating porcupine-quill covered terriers to running for his life and vaulting over a fence while treating a calf. "I had 20 years of practice, so I had a few stories to tell," Wells says.*



#GentleDoctorsEverywhere '92

## Sibling Rivalry

*Some people will go to any lengths to get ahead in the Cy-Hawk rivalry. Take, for example, Ann Sampson, retired major in the U.S. Army Reserves and owner of Scott County Animal Hospital. The Cyclone grew up in a family of University of Iowa fans but she finally found a way to make her Hawkeye-loving youngest brother, Joel Sampson, carry a little bit of Cyclone around with him every day for the rest of his life – she donated one of her kidneys to him the week of the big Iowa State/Iowa football game.*

*Photo special to the Register*

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Grant Jacobson

#GentleDoctorsEverywhere '97

### Independent Vet

Grant Jacobson has an independent streak about him. So it was natural when he started his own independent veterinary practice in Marshalltown, Iowa, that he would gravitate to a new veterinary professional organization that celebrates independence. Jacobson is a member of the inaugural Board of Directors of the new Independent Veterinary Practitioners Association. Jacobson is also in the start-up mode. The practice he worked for, for 19 years was sold to a corporate group. He declined an option of staying with the clinic and ventured out on his own. He opened his practice, The Hometown Veterinarian, last October. "This is a true start-up practice," Jacobson said. "When I graduated I knew I wanted one day to own my own practice. It just took a different route than I had originally expected."



Laura Molgaard

#GentleDoctorsEverywhere '91

### Interim Dean

Long-time University of Minnesota College of Veterinary Medicine faculty member Laura Molgaard has been named interim dean of that college. She had previously served as the senior associate dean for academic affairs where she oversaw the college's DVM educational program and worked collaboratively with faculty, staff and students to advance excellence in curriculum, teaching and student support. Molgaard was also honored earlier this year with the Outstanding Faculty Award of the Minnesota Veterinary Medical Association.

Photo: University of Minnesota



Leslie Reed

#GentleDoctorsEverywhere '09

### Wildlife Vet

For the opossum who has a toothache, a swan suffering from lead poisoning or a box turtle with a broken shell, Leslie Reed is a true lifesaver. The veterinarian delights in the sheer variety and challenge that each day brings at the Wildlife Rehabilitation Center of Minnesota, where she serves as the director of veterinary education. During her stint at the rehab center, Reed has created a dentistry practice, cultivated a specialty in turtle shell repair and built a training program that draws students from around the world. "I could easily see, between new admits and rechecks, a couple hundred patients a day," she says. "From a baby mouse all the way up to a bobcat."

Photo: Anthony Souffl, Star Tribune



## New Development Officer Joins CVM Staff

**Debra Calderwood** has joined the Iowa State University Foundation as a director of development in the College of Veterinary Medicine.

Calderwood will work with grateful clients in the Lloyd Veterinary Medical Center.

The Iowa native joins the CVM staff after five years as the director of development in the School of Medicine and Health Sciences at George Washington University.

## Gauger named MorriSTONE Faculty Fellow

**Dr. Phil Gauger**, associate professor of veterinary diagnostic and production animal medicine, has been named the recipient of the MorriSTONE Faculty Fellowship.

The fellowship was created by Pipestone Veterinary Services and is in honor of Dr. Bob Morrison, who was instrumental in the lives of many of Pipestone's swine veterinarians' personal and professional growth.

Pipestone Veterinary Services is a large employer of Iowa State DVM graduates, with approximately 25 currently working for the Minnesota-based company.

As part of the MorriSTONE Faculty Fellowship, Gauger will work on automating genetic and antigenic comparisons between Influenza A viruses in swine.



Photo: Christopher Gannon



## CAMPAIGN UPDATE

The College of Veterinary Medicine is nearing its \$81 million goal for the Forever True for Iowa State fundraising campaign.

As of the end of August 2019, more than \$71 million has been raised toward the \$81 million goal.

Gifts from alumni, grateful clients and friends were received for all areas of the college, but particular attention was given last year to scholarship support. Because of current and past contributions, the College was able to award almost \$1.1 million in scholarships to veterinary students for the 2019-20 academic year.

## Hitting the Ground Running

One after another the grants kept streaming in.

“It was a crazy summer,” said Dr. Jodi McGill, assistant professor of veterinary microbiology and preventive medicine. “We had a bunch of things we were working on that all just clicked at the same time.”

The grants have been rolling in since January. There was \$229,500 from the National Institutes of Health, \$475,000 from the USDA, another \$536,000 from the NIH. She also received significant support from private companies and universities.

And most recently, she received a \$350,125 grant from the Roy J. Carver Charitable Trust out of Muscatine, Iowa, to research novel intervention strategies to address Vitamin A deficiency, mucosal immunity and human respiratory syncytial virus (RSV).

“I’m usually ‘scraping’ to put money together so to hit a critical mass with our preliminary research results and have this many grants all at once is definitely overwhelming,” McGill said.

The influx of grants has impacted McGill’s day-to-day operation. When she joined the College of Veterinary Medicine faculty in May 2018, the lab consisted of two individuals.

Today the lab is an “army” of seven plus several Iowa State undergraduate students.

“We’ve had to ramp up our efforts and hire several new people in the lab,” McGill said. “We have a new post-doc, a new technician and are working on recruiting some new graduate students.”

McGill’s background is in human immunology, completing her PhD from the University of Iowa. But there was a time in McGill’s career when she doubted if she would continue in research.

“I got burned out, left research for a year and started working at the National Veterinary Services Lab,” she recalled. “Then a post-doc became available at the NADC (National Animal Disease Center) and I realized I loved working with cattle and I started to enjoy research again.”

McGill’s research focuses on the immune response to respiratory infections in cattle. Her lab is currently studying the response to several respiratory pathogens including bovine respiratory syncytial virus, Mannheimia haemolytic and Mycobacterium bovis, the causative agent of bovine and zoonotic tuberculosis.

Major projects are focused on the importance on nonconventional T cells in the response to respiratory infections, the development of novel vaccine strategies to prevent respiratory disease and investigating the impact of certain micronutrients on the host immune response and resistance to respiratory infection.

McGill’s Carver Trust grant looks at both animal and human health issues concerning RSV. RSV is a leading cause of severe acute lower respiratory tract disease in infants and young children worldwide. Bovine RSV (BRV) is genetically and antigenically closely related to human RSV and a significant cause of morbidity in young cattle. The disease in cattle is very similar to that seen in humans, and the project will study the immune response in the calf to learn more about how the infection impacts human infants.

“This research allows me to have a foot in both the human and animal health worlds,” McGill said. **gd**



Photo: Dave Gieseke

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**College of Veterinary Medicine**

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# HOMECOMING

Homecoming activities in the College of Veterinary Medicine included college tours, presentations and a luncheon in a tent outside of the Fish Tank Lobby. Mark your calendar to return next year when Homecoming will be held Oct. 17, 2020.

*Photos: Dave Gieseke*