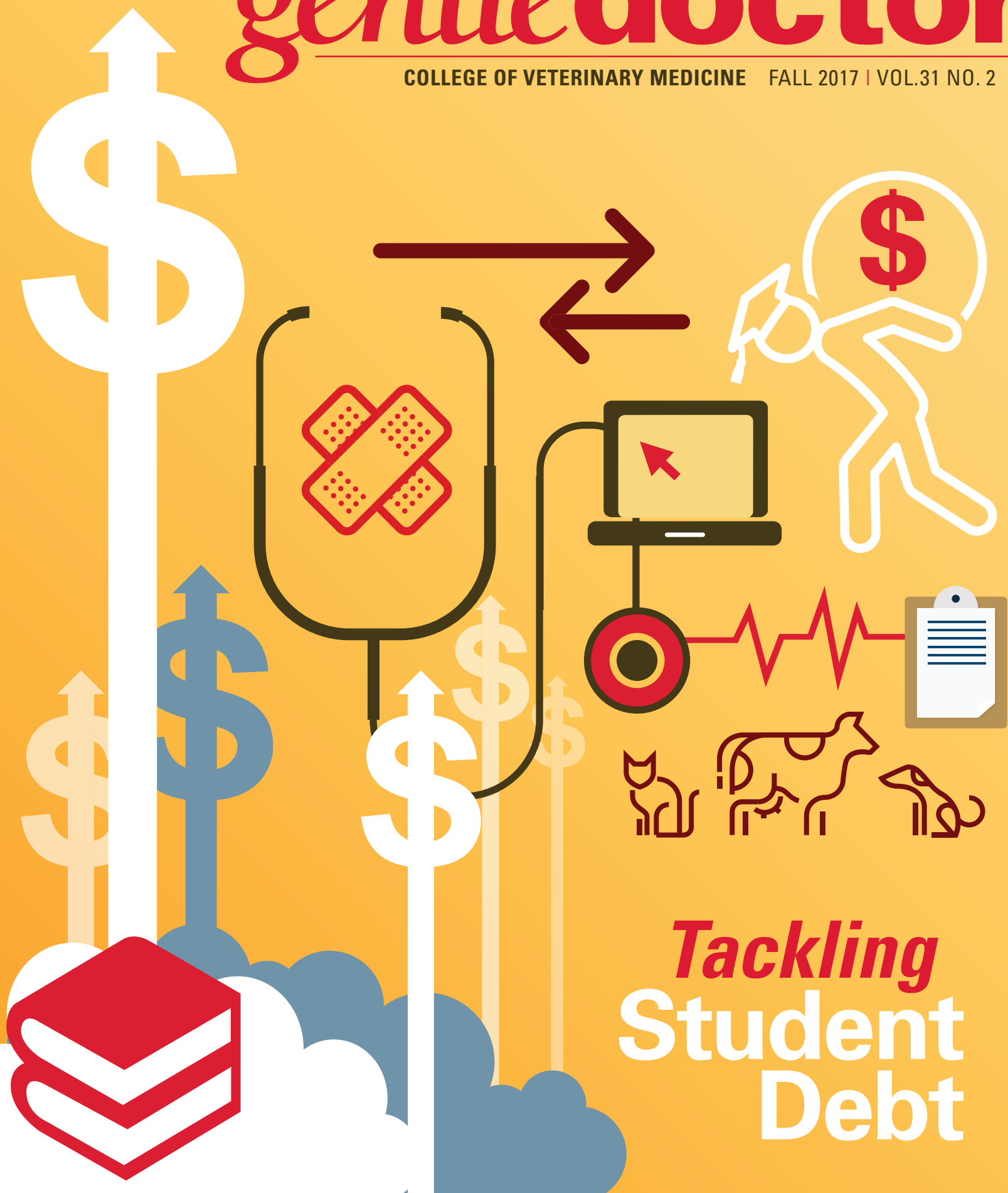


# *gentle*doctor

COLLEGE OF VETERINARY MEDICINE FALL 2017 | VOL.31 NO. 2



*Tackling*  
**Student  
Debt**

# gentledoctor

FALL 2017 | VOL.31 NO.2

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**Office of the Dean** ..... 515 294-1250  
**Office of Development** ..... 515 294-8562  
**Lloyd Veterinary Medical Center**  
**Hixson-Lied Small Animal Hospital**..... 515 294-4900  
**Large Animal Hospital** ..... 515 294-1500  
**Veterinary Diagnostic Laboratory** ..... 515 294-1950

**Editors** ..... Dave Gieseke  
**Writer** ..... Tracy Ann Raef  
**Graphic Designer**..... Heather Brewer

We welcome your suggestions, comments, and contributions to content.

**Correspondence should be directed to:**

Dave Gieseke  
 Editor, *Gentle Doctor*  
 College of Veterinary Medicine  
 Iowa State University  
 Ames, IA 50011-1250  
 515 294-4257  
 dgieseke@iastate.edu



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

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## From the Dean

It has been a challenging and interesting experience to serve as the interim dean of our College these past few months. I have a deep appreciation for the rich history of the College of Veterinary Medicine and have the privilege of personally knowing many of our alumni and retired faculty. We are not only the oldest public veterinary college in the nation; I am also proud to say that we are also among the fastest evolving. We have to be to meet the ever-changing expectations of our clients and stakeholders and to succeed in an extremely competitive environment for research funding.

I have sincerely enjoyed immersing myself in helping our service units evolve into the highest quality, customer-centric services that meet or exceed expectations of our clients. Pet owners today expect that their pets will have the opportunity to receive the quality of care humans receive, and we can and do deliver that. The livestock and poultry producers we serve are remarkably progressive and expect our services to be leading edge. Because Iowa's \$32.5 billion animal agriculture industry is so important and diverse, we have put in place solid and remarkably diverse teaching, professional practice and outreach programs in food supply veterinary medicine, that as a whole, are likely unmatched among our 30 peer veterinary colleges.

As the oldest and second largest veterinary college, we have a large alumni base. I highly value input from alumni and have traveled to at least 10 states over the last few months to meet with alumni and friends connected to the College in other ways. Your passion for your alma mater is evident. At each stop along the way I have been met by enthusiastic alumni who genuinely care about the College and want to help us continuously improve.

You should notice that we have ramped up our efforts to stay connected to retired faculty and alumni...you are the foundation upon which we stand. The Gentle Doctor magazine has been expanded and will also increase in its annual frequency. I hope many of you have received and read our new monthly alumni e-newsletter which is intended to keep you informed about what is happening in the College and also highlight your fellow alumni with our "Gentle Doctors Everywhere" feature.



*Photo: Christopher Gannon*

Research plays a vital role in our mission as a land-grant university and on the impact we have on improving the society we live in locally and globally. In this issue of the Gentle Doctor you will read about how several of our successful researchers have improved the lives of both people and animals.

By the time you receive the Gentle Doctor we will likely have completed the accreditation site visit scheduled for Oct. 29-Nov. 3. We will find out if we meet the 11 standards for accreditation. I have been very impressed by the engagement of faculty, staff, students and alumni in the process that ultimately certifies that our College has the program in place to assure students and stakeholders that we are preparing veterinarians to succeed as entry-level veterinarians and that we are committed to continuous improvement of our program.

Thank you for your continued support and interest in our College,

**Pat Halbur, DVM, MS, PhD**

*Dr. Stephen G. Juelsgaard Interim Dean of Veterinary Medicine  
Iowa State University*

## THE NATION'S TOP FOOD ANIMAL CASELOAD

Iowa's diverse and robust \$32.5 billion animal agricultural industry is reflected in the College of Veterinary Medicine's (CVM) food animal caseload.

Iowa State ranks first in the nation amongst veterinary teaching hospitals in food animal patient count. This is the just the latest indication that Iowa State is the nation's leader in educating food animal veterinarians.

The ISU CVM also receives more USDA funding than any other veterinary college and the percentage of fourth-year Iowa State veterinary students choosing either food animal or mixed animal track is almost two-thirds of the total student enrollment.

"The college has created a teaching program that builds a strong base of knowledge in our classrooms and labs and emphasizes hands-on experiences in our hospital and in the most progressive livestock and poultry production systems in order to have students practice ready on day one," said Dr. Pat Halbur, the Dr. Stephen G. Juelsgaard Interim Dean of Veterinary Medicine.



Photo: Paul Gates



Photo: Kacey Klemesrud

## ROTH ELECTED TO NATIONAL ACADEMY OF MEDICINE

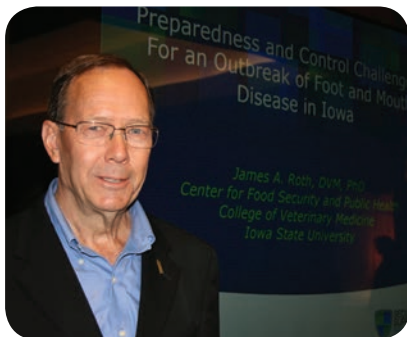


Photo: Heather Brewer

Dr. James Roth, Clarence Hartley Covault Distinguished Professor of Veterinary Microbiology and Preventive Medicine, has been elected to the National Academy of Medicine for decades of work studying infectious diseases.

He is the first faculty member from the College of Veterinary Medicine to gain membership in the National Academy of Medicine. Roth serves as director of the Center for Food Security and Public Health and executive director of the Institute for International Cooperation in Animal Biologics. He has devoted much of his career to studying the immunology of infectious diseases of livestock and management of foreign animal disease outbreaks.

While at Iowa State, Roth has testified before Congress on agroterrorism and foreign animal disease preparedness and served on federal advisory panels and committees for the National Research Council of the National Academies of Science.

"I am especially proud of receiving this recognition after having received all of my education and spending my entire career in Iowa," Roth said. "I benefited from being part of an excellent land-grant institution, a college of veterinary medicine with a strong tradition of excellence in infectious diseases of food animals and the opportunity to collaborate with the U.S. Department of Agriculture National Centers for Animal Health in Ames."

## PHASE ONE OF COMPREHENSIVE CANCER CENTER FOR PETS UNDERWAY

Stereotactic radiation therapy (SRT) is coming to the Lloyd Veterinary Medical Center.

“The SRT will give us expanded options to treat cancer in pets, in addition to current treatments such as chemotherapy and surgery,” said Dr. Chad Johannes, assistant professor of veterinary clinical sciences.

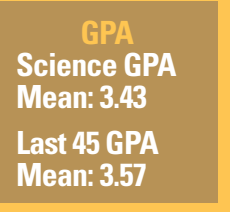
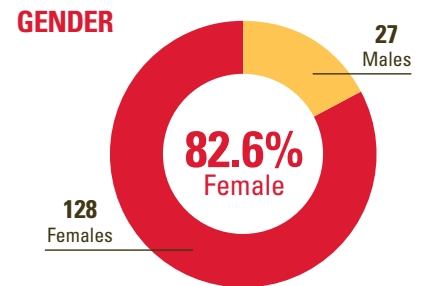
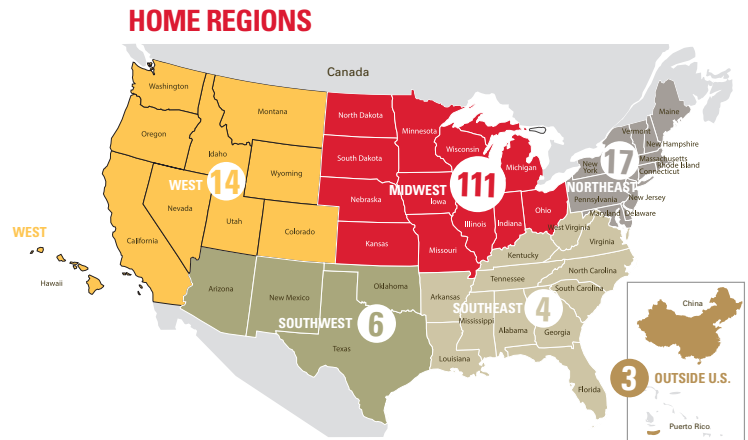
When the SRT is operational next summer, the Hixson-Lied Small Animal Hospital will become one of only seven college veterinary hospitals with this service. The SRT delivers high doses of precisely focused radiation and is used for pituitary, brain, bone, nasal, skin, and other solid tumors.

Cancer patients typically receive one to four treatments using SRT, representing up to 95% reduction in treatment sessions. Patients also experience very minimal side effects and a good quality of life with this treatment.

“They often return to normal activities immediately after treatment,” Johannes said.

The SRT is the first phase of a Comprehensive Cancer Center for Pets, which will include advanced diagnostics and treatment of pets, with chemotherapy and immunotherapy and new clinical trial capabilities. Additional research laboratories are planned for the final phase which will allow college researchers to further increase oncology/comparative medicine-related research.

## Class of 2021



## HONORS AND AWARDS

### SELECTED SAMPLES

**Dr. Rodger Main**, director of the Veterinary Diagnostic Laboratory, has received the 2017 Howard Dunne Memorial Award from the American Association of Swine Veterinarians (AASV). The Dunne Award is given annually to a AASV member who has made a significant contribution and rendered outstanding service to AASV and the swine industry.

**Dr. Kent Schwartz**, clinical professor in veterinary diagnostic and production animal medicine, has been named to the 2017 Master of the Pork Industry class by the National Hog Farmer. Schwartz was among the handpicked group of pork industry leaders “who have left deep roots in the swine business.” He was selected because of his “commitment to each of the up to 3,000 cases that cross his desk in the VDL. To Schwartz, these cases are not just numbers, they are real producers with real herds and real concerns.”

**Dr. Yuko Sato**, assistant professor of veterinary diagnostic and production animal medicine, has been named a 2017 Speaker of the Year by the North American Veterinary Conference (NAVC). She was honored with one of the five awards for 2017, specifically in the exotics section. More than 350 nationally renowned veterinary speakers spoke at the annual Orlando conference representing more than 1,200 different sessions. The award is voted on by the event attendees.

**Dr. Richard Martin**, Clarence Hartley Covault Distinguished Professor in biomedical sciences, has been awarded a Fellowship by the Royal College of Veterinary Surgeons in recognition of “outstanding contributions to the veterinary profession by Meritorious Contributions to Knowledge.”

## Long-time Faculty Member Passes Away



**Dr. Charles (Chuck) Thoen**, professor of veterinary microbiology and preventive medicine, died May 8, 2017 in Ames.

Thoen had a distinguished career and his work in the area of bovine paratuberculosis has had a significant impact throughout the world. As the *Mayo Clinic Alumni Magazine* recently noted, Thoen was “a man among beasts.” During his half-century long career in veterinary medicine he worked with food-producing animals, companion animals, nonhuman primates, elk, buffalo, and even elephants.

His career spanned not only his time at Iowa State but as a veterinary medical epidemiologist for the USDA. He was the editor of three text books, the author of a multitude of book chapters and he regularly prepared students to study abroad in South Africa. He consulted for the Smithsonian Institution, National Institutes of Health, Center for Disease Control and agricultural departments both here and abroad. He earned his PhD from the Mayo Graduate School and his DVM from the University of Minnesota.

### Howard Hughes Medical Institute Comes Calling for Turnbull

*A third-year student in the College of Veterinary Medicine has received a Howard Hughes*

*Medical Institute Medical Research Fellowship. Katherine Turnbull was one of 79 medical and veterinary students selected to conduct in-depth, mentored biomedical research at top institutions throughout the United States. Each fellow will spend a year pursuing biomedical research at one of 32 academic or nonprofit research institutions.*



Photo: Heather Brewer

## ADMINISTRATIVE CHANGES

Several faculty members have been appointed to new administrative roles in the College of Veterinary Medicine.



**Dr. Jared Danielson** has been named associate dean for academic and student affairs. He had served for the past year in the same role on an interim basis.



**Dr. Locke Karriker**, the Dr. Douglas and Ann Gustafson Professor for Teaching Excellence in Veterinary Medicine, has been appointed interim chair of the Department of Veterinary Diagnostic and Production Animal Medicine.



**Dr. Alex Ramirez**, associate professor of veterinary diagnostic and production animal medicine, has been named interim Assistant Dean of Academic and Student Affairs.



**Dr. Cathy Miller**, associate professor of veterinary microbiology and preventive medicine, has been named the interim assistant dean of graduate studies and research training.



**Dr. Heather West Greenlee**, associate professor of biomedical sciences, has been appointed the College's Equity Advisor.



**Dr. Monica Howard**, director of student programs, has been named the Deputy Title IX Coordinator in the College of Veterinary Medicine in addition to her current duties.



**Dr. Amanda Fales-Williams**, associate professor of veterinary pathology, is the new chair of the College of Veterinary Medicine's Governance Council.

## CVM APPOINTS NAMED FACULTY POSITIONS

The College of Veterinary Medicine has announced the appointments of several named faculty positions within the college.

- **Dr. Amanda Fales-Williams**, associate professor of veterinary pathology, Tyrone D. Artz, M.D. Chair for Teaching Excellence
- **Dr. Arthi Kanthasamy**, professor of biomedical sciences, John G. Salsbury Endowed Chair in Veterinary Medicine
- **Dr. Mark Lyte**, professor of veterinary microbiology and preventive medicine, W. Eugene Lloyd Chair in Toxicology
- **Dr. Richard Martin**, Clarence Hartley Covault Distinguished Professor, Dr. E.A. Benbrook Endowed Chair in Pathology and Parasitology
- **Dr. James Roth**, Clarence Hartley Covault Distinguished Professor, Presidential Chair in Veterinary Microbiology and Preventive Medicine
- **Dr. Qijing Zhang**, professor of veterinary microbiology and preventive medicine, Dr. Frank K. Ramsey Endowed Chair.

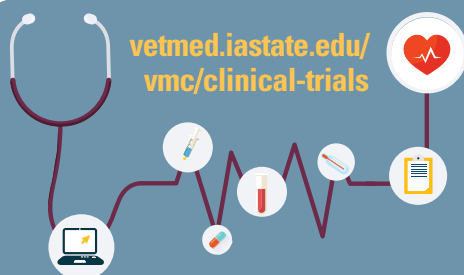
The Artz Chair for Teaching Excellence, Benbrook Chair in Pathology and Parasitology and the Presidential Chair in Veterinary Microbiology and Preventive Medicine are all new named faculty positions in the college.



Photo: Tracy Ann Raef

### Newly Commissioned U.S. Army Officers

Four members of the Class of 2017 took two oaths just hours apart on graduation day last May. The four were commissioned as captains in the U.S. Army Veterinary Corps before they took the Veterinarian's Oath at the commencement ceremony. Pictured, from left to right, are, Captains Megan McGonagle, Isabelle Gerbatsch, Adrienne Barrett and Brandi Miatke.



[vetmed.iastate.edu/vmc/clinical-trials](http://vetmed.iastate.edu/vmc/clinical-trials)

## Clinical Trials Center Expanded in LVMC

A new clinical trials website, [vetmed.iastate.edu/vmc/clinical-trials](http://vetmed.iastate.edu/vmc/clinical-trials), offers a comprehensive look at clinical trials at LVMC. Below is an abbreviated list of active trials.

### Active Trials

#### Cardiology

Lung Ultrasound in Cats with Respiratory Distress

#### Dermatology

Efficacy of an antimicrobial spray to treat Canine Pyoderma

#### Internal Medicine

Thyroid hormone status in dogs with Renal Proteinuria

#### Ophthalmology

Novel Surgical Technique for Symblepharon Correction in Cats

#### Oncology

Palladia: evaluation of a new biomarker to help predict gastro-intestinal side-effects



**Dr. Agnes Bourgois-Mochel**  
Coordinator  
Clinical Trials Center  
[abmochel@iastate.edu](mailto:abmochel@iastate.edu)  
515-291-9866



**Dr. Karin Allenspach**  
Professor  
Clinical Trials Center  
[allek@iastate.edu](mailto:allek@iastate.edu)  
515-291-1281

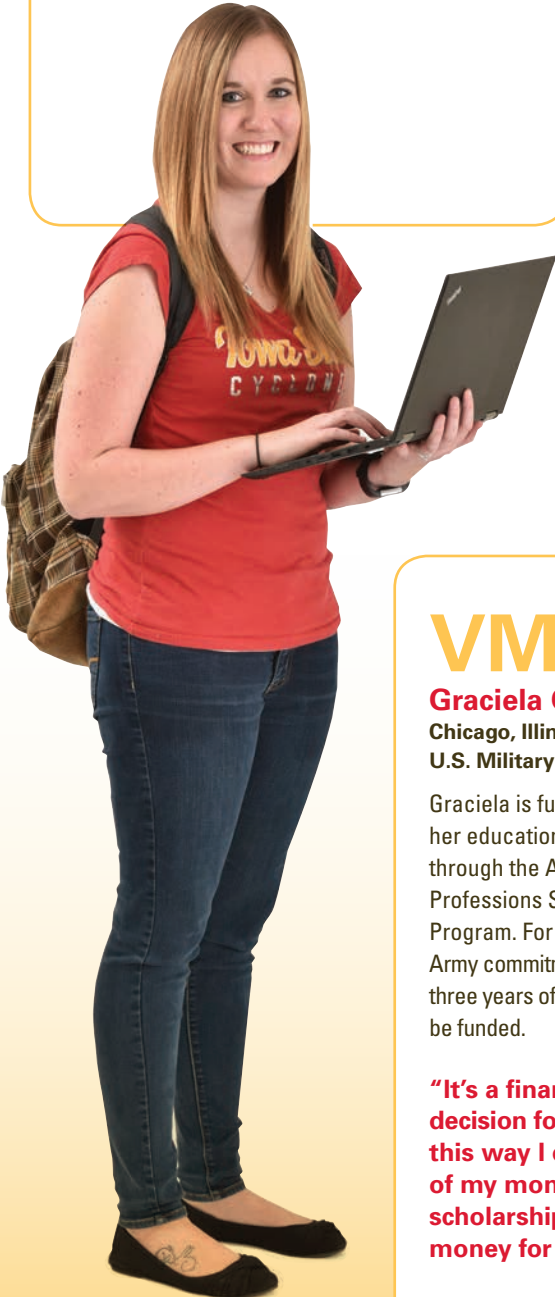
# VM1

## Leah Olson

Williston, North Dakota  
North Dakota State University

Since a young age, Leah has had a strong desire to become a veterinarian. Now that she's training for that profession she is planning for life after graduation.

**"I try to live a cost effective lifestyle by living in the trailer court and eating at home to minimize my eating out."**



# VM3

## Becca Hilderbrand

Council Bluffs, Iowa  
Iowa State University

Becca worked to reduce the amount of student debt she has accumulated by working two jobs her first two years in vet school.

**"My involvement in clubs and my credit load have both increased this year, causing me to only have one job. Making career decisions with my debt looming over my head is daunting, but I have a goal to pay it off as soon as possible. That seems achievable with the right career and determination."**



# VM2

## Graciela Orantes

Chicago, Illinois  
U.S. Military Academy

Graciela is funding her education in part through the Army Health Professions Scholarship Program. For a three-year Army commitment, her last three years of vet school will be funded.

**"It's a financially sound decision for me because this way I can take care of my mom and the scholarship provides money for our housing."**







Tackling

# Student DEBT

By Dave Gieseke

## VM4

### Susie Button

Newcastle, Wyoming  
University of Wyoming

As far back as high school, Susie became aware of the potential debt load she would incur as a vet student.

**"I chose my undergraduate school because of the low cost and numerous scholarship opportunities and was able to graduate debt free. Throughout veterinary school I've continued to apply for as many scholarships as are available and have lived frugally to minimize my debt."**

**N**ervous laughter ripples through the classroom. Dr. Rod Bagley is announcing the results of a survey he asked students in his "Veterinarian in Society" class to take.

The survey dealt with student debt and had many components to it. At one juncture during his presentation, Bagley, chair of the Department of Veterinary Clinical Sciences, reported how long the students anticipated it would take to pay off their student debt they would incur while in veterinary school.

The answers came in increasing length. Ten years, 15 years, 25 years were common responses. The laughter came from every corner of the classroom when Bagley revealed one unidentified student's response.

"When I die."

That may have been funny at the moment, but veterinary student debt is no laughing matter.

The College of Veterinary Medicine is facing a crisis. But we're not alone. Student debt is also a major concern at the other 29 U.S. veterinary schools.

## Student Debt Committee Member & VM4

**Brent Sexton**  
Rockwell City, Iowa  
Iowa State University

Brent represented the student body on the Student Debt Committee. While at Iowa State, he has aggressively pursued scholarship opportunities, taken paid summer internships, worked with professors during the year and paid close attention to his finances to avoid unnecessary expenses.

**“Student debt is an issue that concerns essentially every veterinary student. While Iowa State may be more affordable than many other schools, it is still an expensive endeavor. I do believe there are students who could be incredible veterinarians, who do not pursue a career in veterinary medicine due to the substantial debt they would have to incur.”**



If you delve deeply into the figures, Iowa State’s veterinary students actually make out better than many of their counterparts throughout the country. Nationwide, the median student debt (adjusted for inflation) level was \$156,480 in 2016, up over \$50,000 just a decade ago.

At Iowa State, that figure was \$135,787 with 130 students graduating in the Class of 2016 reporting some level of debt. Only nine Iowa State students went through the four years of veterinary courses with no student loans.

“We know there is no way we can totally eliminate veterinary student debt at Iowa State, but we are working hard to find ways to reduce our students’ debt load,” said Dr. Pat Halbur, the Dr. Stephen G. Juelsgaard Interim Dean of Veterinary Medicine.

### WHY SO MUCH DEBT?

It would be much easier to solve the problem if there was one reason as to the escalating debt levels. One thing people shouldn’t do — blame the students for the problem.

“There is a misconception that vet students are spending a lot of money on frivolous items like Starbucks,” said Dr. Alex Ramirez, the interim assistant dean of academic and student affairs.

“The actual cost of those items is a very small percentage of the total debt they incur (less than 10%).”

“The students at Iowa State really do limit themselves, but the impact of these items on their actual debt load is very minimal.”

A major culprit to a student’s debt load is recent increases in tuition. State appropriations continue to decline. And for the first time in the nearly 150-year history of the College of Veterinary Medicine, the current fiscal year budget will include more revenue from tuition than from state appropriations.

But relatively speaking, Iowa State’s veterinary education is a bargain. When the total cost of education (tuition, fees, books, living expenses) is factored in, Iowa State ranks near the bottom for in-state residents. It will cost Iowa students \$153,000 over the four years it will take them to get their degree.

The verdict isn’t quite as good for non-resident students, but there are still far more schools that are more expensive than Iowa State. The total cost for non-residents at Iowa State is estimated at more than \$250,000 over the four years. The national average is \$35,000 higher.

### HOW ABOUT A PART-TIME JOB?

Part-time jobs among veterinary students are not as common as they once were. Ramirez, an award-winning classroom instructor, says faculty are requiring students to learn more complex information than he was taught before graduating from Iowa State in 1993.

“We expect students to know more information, yet we teach this information in the same four years of college,” Ramirez said. “I see students studying in the building at all hours of the day, on weekends, even Saturday nights.”

“I didn’t do that (study all the time) and I believe we are requiring more of our students than we did 20 or 30 years ago. Because of this, students

don't have the luxury to have a job." Even summer jobs are a thing of the past. Ramirez says as a student, he could make enough money to survive on for the next year. Today's students work in the summer and only make enough to survive for that summer.

And as Julia Gwebu, financial literacy advisor for the college, says...

"Even if students decide they can find time to work, they're not making a lot of money. "They're never going to find a job that's going to make them \$60,000 a year they would need to pay their way through school."

## SO WHY DO STUDENTS DO IT?

For most Iowa State veterinary students, the profession they have chosen is a long-standing dream. For many it's the only career they've considered.

"I don't know if students have a full understanding of the cost of education and their debt," Ramirez said. "Kids are still kids. They are going into a career they have a passion for. They think 'my local vet is able to survive. I don't see vet clinics closing down. This will work out well for me.'

"When you have a strong passion about something, it's difficult not to be passionate about your career choice," Ramirez continued. "They are living a dream they have had for most of their lives and don't really worry about the cost."

Gwebu agrees with Ramirez. She and her colleagues meet with prospective students informing them of their financial assistance options and then have regularly scheduled hours each week where current students can come and discuss their loans and options. Almost all know exactly what they are getting into and only start to worry about paying the loans back as graduation edges closer.

## LEADING THE WAY

Last spring, before he became the college's interim dean, Halbur led a committee to find solutions to the student debt problem. The committee of faculty, staff, students and alumni was charged with finding solutions to the problem.

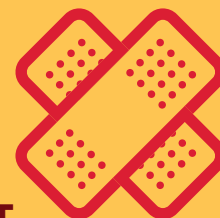
In its final report, the committee came away with "best ideas" to address student debt in the college. While the committee just submitted its report last spring, the college has already acted on some of the "best ideas" including:

- A training program has been developed for pre-vet and veterinary college advisors
- The minimum hours of veterinary related experiences have been decreased for applying students
- Ramirez was appointed to his new position, focusing his efforts on strengthening career and financial assistance counseling
- A heavy emphasis will be placed on creating new scholarships during the "Forever True, for Iowa State" fundraising campaign

"Additional scholarships are the number one priority for this college today and will be well into the future," Halbur said.

Iowa State annually distributes over \$644,000 in veterinary scholarships annually. Ramirez is examining the criteria for many of the established scholarships to see if more can be given to first and second year students.

"Students would accumulate less interest in this way and I believe if we can either move or fund additional scholarships earlier in their student careers, then that would add up to a significant dollar amount," he said. **gd**



## STUDENT SCHOLARSHIPS

### How Alumni Can Aid in Reducing Student Debt

The historic "Forever True, For Iowa State" fundraising campaign in the College of Veterinary Medicine is seeking to raise \$15 million in additional scholarship support for DVM students.

Alumni and friends can establish scholarships to DVM students based on need or merit. Both endowed and expendable scholarships are needed as the college attempts to reduce the debt load among its students.

Donors may also contribute to a general college scholarship fund on an annual basis.

### WANT TO HELP?

Contact the College of Veterinary Medicine's fundraising team at [vetmeddev@iastate.edu](mailto:vetmeddev@iastate.edu) or 515-294-0867.

“Additional scholarships are the number one priority for this college today and will be well into the future.”

— Dr. Pat Halbur,  
Dr. Stephen G. Juelsgaard Interim Dean  
of Veterinary Medicine



Photo: Christopher Gannon


## Interim Dean Dr. Pat Halbur

By Dave Gieseke

**D**r. Pat Halbur, professor and chair of veterinary diagnostic and production animal medicine, has been named the Dr. Stephen G Juelsgaard Interim Dean of Veterinary Medicine replacing Dr. Lisa K. Nolan, who left to return to her alma mater, the University of Georgia.


Halbur holds a DVM (1986) from Iowa State as well as master's and Ph.D. degrees in veterinary pathology. He returned in 1990 after four years as a private veterinary practitioner in Williamsburg, Iowa. He also serves as executive director of the Veterinary Diagnostic Laboratory.

*Gentle Doctor* recently sat down with Halbur to discuss the college's priorities during the interim period.




**Gentle Doctor:** You're a long-time faculty member in the college so you have had time to assess where the college stands and what direction you think it should be heading.

**Halbur:** Yes, I have a good understanding of the challenges and opportunities we are likely to experience in the next year. The college has good momentum; however, our state has some major financial challenges right now that concern me in regards to how they will impact our college including a significant cut to our budget this year. We were able to off-set a significant amount of the cuts through efforts by the college cabinet to make strategic cuts in our budget, improve efficiencies, and increase other revenue streams. We also made the decision to increase our class size to 155, making us the second largest College of Veterinary Medicine in the U.S.




**Gentle Doctor:** Do you have a top priority?

**Halbur:** Preparing students to be practice ready on day 1 after graduation is my top priority. Having said that, the research, professional practice, outreach and extension functions are very important to the success of the college and the stakeholders we serve. Everything we do in some way contributes to the teaching and learning opportunities for our professional and graduate students. With every decision we make we must consider how it will impact and improve diversity and inclusiveness and student debt.



**Gentle Doctor:** Iowa State is in the middle of the *Forever True, For Iowa State* campaign. How is the college's campaign goal coming along?

**Halbur:** Support from donors has perhaps never been more important than it is today as our state budget shrinks and student debt grows. We are very fortunate to have a really good development team in our college and we have already raised nearly \$50 million of our \$70 million target. The dean has major responsibilities in fundraising. I enjoy that part of the job and look forward to working closely with our development team in surpassing our goal and in the process better position our college for the future. Student support will be critical for this college in the coming years so I want us to far exceed our \$15 million goal for student scholarships.



**Gentle Doctor:** What is on the horizon for the college?

**Halbur:** As Chair of the Department of Veterinary Diagnostic and Production Animal Medicine and Executive Director of the Veterinary Diagnostic Laboratory, I have worked closely with Dr. Rodger Main (VDL director) over the last several years to get the new VDL on the top of the list of capital project priorities for Iowa State and the Board of Regents. With new leadership at ISU and the Regents, it is critical that we work to make sure it stays as the university's top priority. We have great support and advocacy from our stakeholders including commodity groups, Iowa Farm Bureau, Iowa Veterinary Medical Association, Grow Iowa Ag and others to keep this need in front of the legislature.

## HALBUR INDUCTED INTO NATIONAL ACADEMY OF INVENTORS

Dr. Pat Halbur, the Dr. Stephen G. Juelsgaard Interim Dean of Veterinary Medicine, has been inducted into the National Academy of Inventors.

Election to NAI fellow status is a high professional distinction accorded to academic inventors who have demonstrated prolific innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society.

Halbur, who also serves as the executive director of the Veterinary Diagnostic Laboratory, has contributed to advances in biopharmaceuticals and animal health and has 14 patents, including one related to a vaccine on the market to control porcine circovirus.

He said the diagnostic lab receives more than 80,000 cases from across the country every year, leading to rich opportunities to make new advances.

"When gaps are identified in the investigations, we have the multidisciplinary teams in place to quickly go into discovery and innovation mode to identify the cause and develop intervention and control strategies," he said. "I get great satisfaction from facilitating opportunities for our faculty to be involved in the discovery and innovation process, which is so critical to the future sustainability of Iowa and U.S. animal agriculture."

We have also worked very hard to educate our legislators and I think they understand the need. It is really important that we continue to emphasize that when this project is completed it will provide the college with much needed space in the current VDL to address the college's critical needs for teaching and research.

The VDL is just one of the many projects that are underway that have the potential to transform the College. The Hixson-Lied Small Animal Hospital will soon offer Stereotactic Radiation Therapy. We will be the only veterinary hospital to offer this noninvasive, nonsurgical cancer treatment for pets in the region.

Just last year, we remodeled the Junior Surgery facility as we changed how we teach surgical training to our students. The College has teamed up with 20 area shelters and rescues where we are providing free wellness and spay/neuter care for shelter and rescue animals. Last year alone 600 dogs and cats were brought to Iowa State where our 3<sup>rd</sup> year students provided medical assessments and preventive care, as well as spays and neuters. This

program has made great strides in the last year, I expect it will continue to grow and I commend the faculty involved for making this happen.

**Gentle Doctor: What have you enjoyed the most about your short time as the interim dean?**



**Halbur:** It's an honor to serve as the interim dean of the oldest, and one of the largest, public veterinary colleges in the country. I see the enthusiasm on a daily basis in the college and the desire to continue to improve on any number of levels.

This summer I have attended the AVMA annual meeting in Indianapolis, the state meetings in North and South Dakota and met with alumni in six other states. The passion and excitement our alumni have for their alma mater is indeed "Forever True." Yes, this is the oldest College of Veterinary Medicine in the U.S., and it is also one of the fastest evolving because of the combination of great faculty and staff, quality students and remarkable alumni and friends of the College. **gd**



Photo: Paul Gates

## NOLAN RETURNS TO ALMA MATER

The lure of her alma mater was too good of an opportunity for Dr. Lisa K. Nolan to pass up.

Nolan, who served as the Dr. Stephen G. Juelsgaard Dean of Veterinary Medicine at Iowa State University since 2011, resigned to return to fill a similar position at the University of Georgia College of Veterinary Medicine.

"This was a tough decision for me personally and professionally," Nolan said. "While I will miss working at Iowa State, I am excited about the opportunity to go back

to my alma mater and my home state of Georgia to lead an outstanding veterinary college."

The Lisa K. Nolan Servant Leadership in Veterinary Medicine Scholarship has been established at Iowa State to honor Nolan's servant style of leadership of the College of Veterinary Medicine.

**Individuals interested in contributing to the scholarship may contact Amy Kruzich, executive director of development, at [akruzich@foundation.iastate.edu](mailto:akruzich@foundation.iastate.edu).**



# The Hunt for Viruses

By Tracy Ann Raef

**Z**ika, West Nile, Ebola, Influenza – all viruses – are known to the public because of the attention given when outbreaks occur. But, at one point, each of these viruses was only known to a select few – the person or person(s) who first discovered them. The Virus Hunter.

Brad Blitvich, PhD, is a virus hunter. In his lab at the College of Veterinary Medicine, this professor of veterinary microbiology and preventive medicine, searches for viruses. Not ordinary viruses, mind you, but arthropod-borne viruses (arboviruses) – viruses that can be transmitted to humans and animals by infected insects (arthropods).

In the past 20 years, there has been a growing threat to animal and human health by native and recently established arboviruses from other countries. These viruses, like Zika and West Nile, are transmitted by the mosquito. Virus hunters, like Blitvich, have a worthy opponent in the mosquito who is a wonderful disease host. Pathogens can hitch a ride in the mosquito or other insect, who, in turn, can infect humans and animals via its bite. Finding and identifying these arboviruses before they become tomorrow's headline is the quiet bench-work that scientists like Blitvich do every day.

Blitvich has spent his entire research career studying insect-transmitted viruses, discovering several novel viruses from the midwestern United States and Mexico. This summer, he and his team discovered a novel virus from Iowa. “Mosquito-borne viruses are often named after the geographic location where they were first discovered,” Blitvich said. “We had a list of 10 potential names, and I let our veterinary student summer scholar, Stefanie Hurt (’20), name it. She chose ‘Skunk River Virus’ which is the river close to where the mosquitos were collected.”

How do scientists look for novel viruses? In this case, the team obtained mosquitos from the ISU Medical Entomology Laboratory that were collected from various counties in Iowa. The mosquitos were pooled according to where they were collected, ground up, and inoculated onto a mosquito cell line. The researchers waited a week to give any virus that is present time to replicate. Then the RNA was extracted and mass sequencing (metagenomics) was performed. The sequences were analyzed using a computer

to identify known and unknown viruses. The metagenomics identified a novel virus in the group collected from the Skunk River.

One of the challenges in doing discovery work, says Blitvich, is finding someone who can reliably analyze all of the metagenomics data. “For the summer research study alone there were millions of sequences that had to be analyzed,” Blitvich adds. “We’re fortunate to have someone in my lab who can do that.”

“Our next steps will include a full sequence of the genome,” Blitvich said. “All we know right now is that the virus can infect mosquitoes. We plan to determine whether the virus can also infect human cells and vertebrate animal cells.”

As the hunt for viruses continues, Blitvich and other scientists conduct research every day – not only to determine the significance of the virus, but if it is significant, to develop strategies to detect them in populations, as well as surveillance and monitoring strategies. **gd**

*Blitvich is the recipient of the 2017 Zoetis Award for Veterinary Research Excellence at the College of Veterinary Medicine. He earned his PhD from the University of Western Australia, in 1996. Blitvich joined the faculty at Iowa State, after completing his post-doctoral training at Colorado State University.*



*Dr. Brad Blitvich and lab team (from left): Kristina Larsen, Stefanie Hurt, Jermilia Charles, and Viridiana Laredo*

*Photo: Paul Gates*



# Cool Tech for Vets (and Pets)

By Tracy Ann Raef

The list of innovative, and actually pretty amazing, technologies for everyday human use is impressive. With eye-popping new gadgets coming on the market so quickly, it was just a matter of time before some of that technology would make its way into the pet world.

That time has come. Cool technology has gone to the dogs, cats, and in some cases, horses!

## MOBILE ECG DEVICE

Today's smartphones can do lots of things, including taking and sending ECG recordings. At the Lloyd Veterinary Medical Center, veterinary cardiologist Dr. Jessica Ward and Dr. Brett Sponseller, equine internist, are using the AliveCor Veterinary Heart Monitor.

Basically, it's a mobile ECG device that consists of two metal electrodes that snaps onto the back of an iPhone. Simple to use; just wet the animal's fur with alcohol, then place the metal electrodes on either side of the heart. The device takes and records single-lead waveforms up to 30 seconds at a time. "Our students have grown up with technology, so using some of these technologies in veterinary medicine is quite easy for them and they enjoy it," Sponseller says. He uses the AliveCor as a teaching tool to fourth-year students. Because the heart rate of a healthy horse is much slower (26-44 BPM), than a dog whose rate is three times faster, the students can hear all four heart sounds. "It's a great tool to teach auscultation. The student can

place the device on the horse's side and watch the ECG reading, as they listen to the horse's heart beat with their stethoscope. This helps the students learn to correlate the heart sounds with the ECG reading."

The equine field services clinicians are also using it for routine checks of the heart during a wellness exam. If the clinician hears an abnormality, he or she can record the reading and email it to a specialist for further review. The device is also useful for smaller companion animals.

"I use the devices clinically by sending them home with clients to record heart rate and rhythm," Ward says. "It's especially helpful for patients who have arrhythmias that are made worse by the stress of being in the hospital. I want to know the rate and rhythm when the pet is relaxed in its normal environment."

In those situations, Ward provides the client with a device. The client takes recordings and emails the results to Ward who makes treatment recommendations based on those readings. Ward demonstrates the value of the mobile device with her dog, Anna. Illustration A is Anna's ECG recording at the hospital. Illustration B is the recording at home, which was a 78 BPM difference.

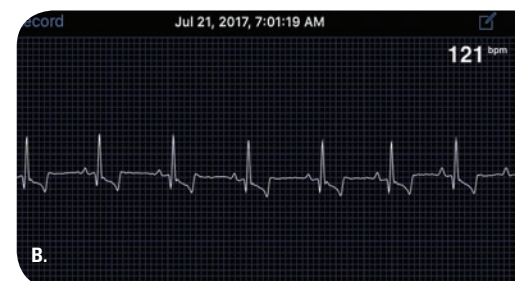
Clients can rent the device for a month from the cardiology service, but many owners prefer to buy their own. Ward says that some general practice clinics that don't have advanced ECG

devices are also using the AliveCor as their sole ECG device. "They are great for assessing heart rate and rhythm, but not good for more complex/detailed measurements of ECG," Ward said.



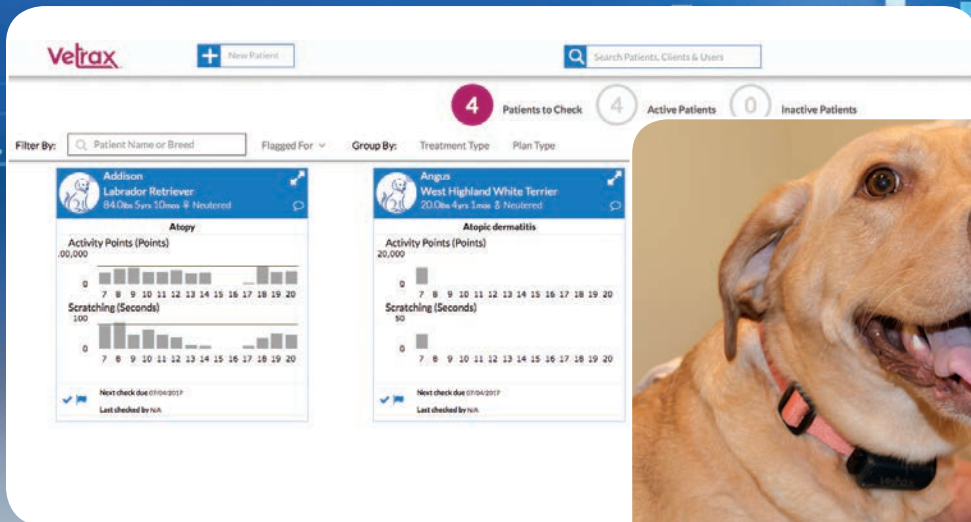
Photo: Heather Brewer

Dr. Jessica Ward uses the mobile ECG on her dog Anna in the treatment room of the hospital. Note the heart rate of: 199.



A second reading taken the next morning at home shows Anna's resting hear rate is: 121.



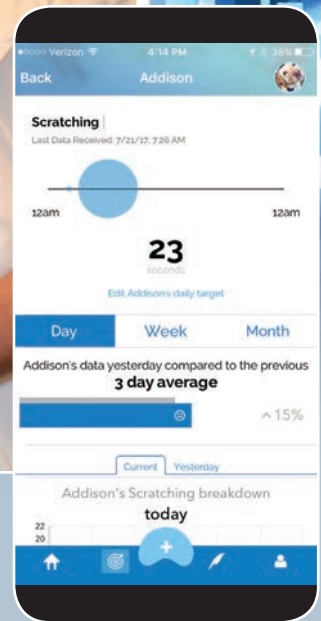


Top: Vetrax™ dashboard desktop view



Photo: Heather Brewer

Top: Addison wearing Vetrax™ activity monitor.  
Left: Vetrax™ dashboard mobile app view



## TRACKING & MONITORING

It's the latest ... tracking your health data, everything from your steps and stairs, to sleep. There's even a monitoring device for your dog to track its activity and sleep.

Dr. Lionel Sebbag, assistant professor of veterinary ophthalmology, is using such a device, FitBark, on some dogs with cataracts.

Cataracts are a leading cause of blindness in dogs, says Sebbag. He explains when dogs are diagnosed with cataracts, their activity level is decreased, which can have a negative impact on the pet's general health (e.g. increased body weight, osteoarthritis, and so forth).

"FitBark is a research-grade dog activity and sleep monitor," Sebbag says. "It collects physical activity and rest levels 24/7, providing the veterinarian and owner with unprecedented insights into health and behavior."

The device is placed on the dog's collar, and is connected via Bluetooth to the owner's personal smartphone. The FitBark app allows the owner to monitor several parameters, including play time, active time, rest time, sleep score, and an overall daily-goal score.

The goal of Dr. Sebbag's study is to use FitBark technology to objectively assess activity level of dogs before and after cataract surgery. The research team hypothesis is that the activity level will significantly increase once vision is restored with cataract surgery.

"The study will allow us to obtain objective data to prove that restoring vision with cataract surgery is beneficial to the overall health of the dog," Sebbag said. "This information would be greatly valuable for both veterinarians and pet owners."

Another cool device that veterinary dermatologist Dr. Darren Berger just got his hands on for his furry-pawed patients is Vetrax™.

The Vetrax™ is an activity monitor with a unique capability to track scratching and head shaking through a lightweight and water-resistant sensor that attaches to the dog's collar. Berger is currently evaluating the clinical use of the monitors.

"We often ask clients to rate their dog's itchiness on a scale," Berger says.

"There's a lot of subjectiveness depending on how 'itch-tolerant,' the client is. With the Vetrax™ itching and scratching is recorded in seconds/minutes and the data is uploaded. Through an app on my computer, I can see how many minutes a day a patient is itching and/or scratching."

Currently, Berger is getting an idea of what the baseline threshold range might be to determine whether the patient needs treatment. For patients who need treatment, Berger sees the Vetrax™ as a useful tool to evaluate the effectiveness of treatment regimens. **gd**

# From Humble Beginnings – Growth of the VDL

By Tracy Ann Raef

**D**r. Vaughn Seaton led the Veterinary Diagnostic Laboratory at Iowa State University from 1964 to 1994, succeeding Dr. Paul C. Bennett who retired after 17 years of supervising the lab. Dr. E. A. Benbrook served as the laboratory's first supervisor when it was officially established in the College of Veterinary Medicine\* on July 1, 1946.

## THE EARLY YEARS (60s-80s)

During those early years when Seaton first became director, the laboratory primarily conducted post-mortem, histopathology, bacteriology and limited serological examinations. "I look back and think how inadequate we were," Seaton says. "All we had was a post-mortem knife, a microscope, centrifuge, some test tubes and petri dishes. We didn't have a bacteriologist; we did our own."

The physical facilities were grossly inadequate. They consisted of four small rooms in the northeast corner of the basement of the Veterinary Quadrangle. One room was for post-mortems with two tables. There was a media-making and sterilization room, along with a room for the supervisor of the laboratory and a half-time secretary shared with another department, and one small room with three desks for two graduate students and one faculty member.

Another major deficiency was lack of incinerator facilities for carcass

and tissue disposal. This material was removed from laboratories by hand-in barrels and hauled away and disposed of in a landfill.

## EXPANSION

They may have started small, but the staff quickly began to build the strong foundation that would become today's full-service, world-class laboratory.

"We needed to expand. Feed additives were new so the demand for services related to toxicology were increasing. I hired a toxicologist. That became our first section in the VDL," Seaton said.

Soon, Seaton added another section to the laboratory – virology. One of the accomplishments of the VDL during the early years of his tenure was virus isolation and identification which would be instrumental in the future of the lab.

The next section Seaton added was bacteriology, with the addition of a microbiologist.

When the Iowa legislature authorized the Racing Commission to conduct Dog and Horse Racing in the '80s, this demanded drug and chemical testing of racing animals. A section of the Veterinary Diagnostic Laboratory was set aside to conduct such tests.

The racing laboratory became very successful, providing racing chemistry to not only Iowa but also Kansas,

Kentucky, New Mexico full time, and part time to Connecticut, California, Trinidad and Tobago, and the Iditarod in Alaska. Iowa was recognized for excellence in drug testing and was asked to provide proficiency testing for other racing laboratories in other states.

## COMMUNICATIONS

In 1964, the number of cases in the VDL was 5,402. In 1974, it was 11,301. It would grow to 30,584 (1984) and 45,985 (1994). But those are only the number of cases, and each case may include several specimens or live animals. Thus, these cases represent thousands of specimens, and subsequent tests and reports. But results mean nothing unless they reach the practitioner in a timely manner.

"Our turnaround for tests was around three to four days," Seaton said. "The pathologist would write a report, the secretary would type it, and the practitioner got the report in a week."

Sometimes the Iowa Highway Patrol became part of the submissions process. "I remember getting a call from an elderly woman who had reached into her closet and was bit by a mouse," Seaton said. "She was so worried that the mouse may have rabies and wanted it tested. She lived in northern Iowa and couldn't get the mouse to Ames. Back in those days, actually up until the '70s, the Iowa Highway Patrol would help out, and serve as a courier in these cases



2017: The VDL now employs 25 faculty and 125 staff.



Photo: Christopher Gannon



**Foundation Builders:** 1980 Meeting of administrative personnel and section leaders – Dr. Lorraine Hoffman, Nadine Buss, Dr. Michael Stahr, Dr. Vaughn Seaton, Dr. John Andrews, Dr. Eugene Lloyd, and Dr. Howard Hill.

Dr. Rodger Main is the current director.

of public health. The end of the story is that the mouse arrived, and tested rabies-free.”

“Back then, the practitioner delivered the specimens or live animals to the VDL, and often, stood with us while we did the post-mortem,” Seaton said. “We learned a lot, and the practitioner often picked up information, also. It’s not possible to do that now with the volume the lab has.”

What makes a good pathologist? A good pathologist, says Seaton, “Talks little, looks a lot.”

Seaton tells the story about post-mortem pathology when he first came to ISU in 1954. One of the pathologists told him: “The pig is trying to tell you a story. It’s like reading a book. You’ve got to read it, understand it, get the meaning out of it.”

## FEES

When Seaton took over the lab in 1964, he was allocated \$11,000 to run the VDL. Travel, equipment, and supplies came from the budget. Salaries were paid through another administrative line. The VDL didn’t start charging fees, though, until 1976. “We were concerned that if we charged, practitioners wouldn’t get animals tested. That proved to be wrong,” Seaton said.

In 1976, the VDL started charging \$5 for each case in Iowa. “After several arguments over whether a case was from

Iowa or not, we decided to replace the \$5 straight fee with a fee schedule, and that’s been the practice since.”

Today the VDL’s budget is over \$25 million between state appropriations and fees.

## FACILITIES

When Seaton joined the faculty in 1954, the college’s main building was the Veterinary Quadrangle and the newest addition was the Stange Memorial Clinic built in 1938. The diagnostic laboratory had grown from a few rooms in the basement of the building. Soon after Seaton’s arrival, the diagnostic lab had moved to its own building built onto the north side of the Quadrangle in July 1956. The VDL building also housed the departments of hygiene, veterinary pathology and parasitology; and the library.

The increase in cases and numbers of specimens has caused the VDL to feel the pinch for space. After remodels and renovations to find more space, it embarked on securing a new lab for the future.

In 1967, a building committee was appointed and the heads of the departments were members of it, with Dr. Frank Ramsey as its chair. When construction was completed in 1976, the diagnostic laboratory wing of the college building consisted of

two floors. The post-mortem room and associated labs were on the first floor; offices and additional labs were on the second floor.

## PEOPLE

With the constant challenges that faced the VDL, from new technologies, new analytical techniques, to fiscal responsibility and tight budgets, the most important job Seaton had was hiring the best people. “What I feel most proud about is the people that I hired. They were all important to me, and many have had a tremendous impact on our profession. I remember hiring a virologist who became dean and a young pathologist who one day became interim dean of the college,” Seaton smiles.

## A DO OVER?

Asked if he’d rather have been director back in the years he was, or now, “Now!” Seaton said. “It’s wonderful what they are doing today. The VDL receives 85,000 cases a year, and the turnaround for tests is much shorter. That would have been unimaginable to me back in the 1960s. The science has progressed so far, so fast. The technology has advanced so much and the sophisticated equipment is remarkable. It’s the best diagnostic lab in the country.” **gd**

*\*The college was officially the Division of Veterinary Medicine at that time.*

**Dr. Suzanne Millman**, associate professor of veterinary diagnostic and production animal medicine and biomedical sciences, has been awarded a \$739,000 grant from the USDA

to develop animal welfare knowledge and skills for the next generation of food animal veterinarians. Dr. Millman will design an online basic animal welfare course for freshman level veterinary students as well as develop week-long experiential courses focused on assessing swine and dairy cattle welfare for senior veterinary students.

By the end of the project, Millman's courses will be available for implementation across the four-year veterinary curriculum to ensure Day One competency in animal welfare. "Veterinarians are at the forefront of animal health, but to be leaders in animal welfare, veterinarians need to be trained in this new discipline, including key components of animal behavior and animal ethics," she said. "The logical place to be doing that training is during their veterinary education."



Photo: Christopher Gannon

A recently completed series of studies by Iowa State veterinarians on some of the most commonly prescribed drugs used in pork production will help to improve food safety and allow producers to make better use of medications. The series of four separate studies focused on pharmacokinetics, or how drugs move through and exit an organism. **Dr. Locke Karriker**, professor and interim chair of veterinary diagnostic and production animal medicine and the Gustafson Professor of Teaching Excellence, led the studies, which tested the pharmacokinetics of antibiotics in swine. Karriker said the data created for the study can inform veterinarians and pork producers about the timing and dosage with which the drugs may be used to improve pig health while maintaining pork safety.

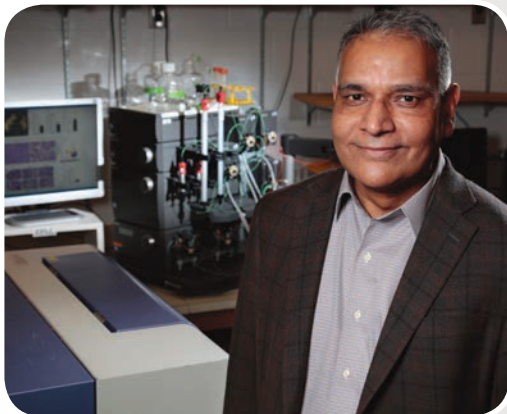


Photo: Christopher Gannon

Spinraza, a drug developed by **Dr. Ravindra Singh**, professor of biomedical sciences, as a potential treatment for spinal muscular atrophy showed promising results in a recently published study.

In a study recently published in the peer-reviewed scientific journal *Molecular Therapy*, Singh and his co-authors showed the drug helped to combat the effects of the disease in mice with mild levels of the disorder.

Spinraza has been approved by the U.S. Food and Drug Administration. It is the first FDA-approved drug for spinal muscular atrophy and is the first antisense drug to restore a full-length functional protein in a human disease.

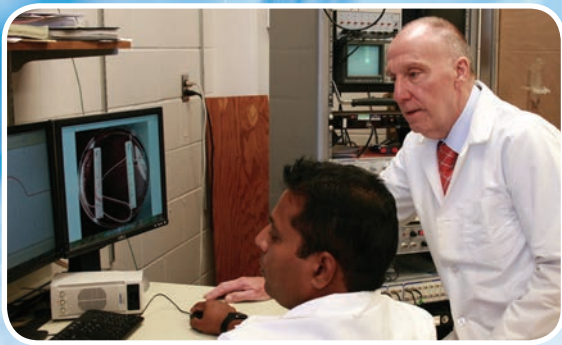


Photo: Heather Brewer

Recently published research from **Dr. Richard Martin**, Distinguished Professor of biomedical sciences, details new methods for studying a parasitic nematode that sickens millions worldwide, a development that could lead to improved therapies. Martin has developed a means of determining the function of individual genes in *Brugia malayi*, a parasitic nematode that threatens populations in tropical regions of Africa, South America and Asia. The advancement will allow researchers to evaluate treatments that combat the disease caused by the parasite. The new method also may help scientists understand how the parasites develop resistance to medication, Martin said.



**Dr. Qijing Zhang**, professor of veterinary microbiology and preventive medicine and associate dean of research in the College of Veterinary Medicine, has identified the specific mutations that have led to the virulence of a major bacterial

threat to ruminant animals such as cattle and sheep. The discovery could pave the way for new treatment options and even a vaccine to help sheep and cattle producers fend off the bacteria, known as *Campylobacter jejuni*. The bacteria can cause miscarriage in pregnant sheep and cows and can also lead to food poisoning in humans who consume raw, or unpasteurized, milk from infected animals.



A new screening technique outlined in recently published research from **Dr. Anumantha Kanthasamy**, Distinguished Professor and chair of the Department of Biomedical Sciences, and W.E. Lloyd Endowed Chair in Neurotoxicology, could slash the time required to conduct experiments on prion misfolding diseases such as chronic wasting disease. The discovery could pave the way for scientists to gain a better understanding of how these disorders develop and spread as well as how they may be treated. Protein-misfolding diseases include a range of neurological disorders that affect both humans and animals including Alzheimer's, Parkinson's and chronic wasting disease. "This has a lot of potential to help us understand the disease process," Kanthasamy said. "We can test potential new therapies and study how they work. We expect this technique to catch on quickly among scientists looking at these diseases." Kanthasamy continues to receive federal funding for his projects including a recent \$1.8 million NIH grant to look at the neuroinflammation in Parkinson's.



Drs. John Coatney, Jan Shearer, Paul Plummer and Adam Krull. Photo: Heather Brewer

The prevention, management and treatment of lameness on organic dairy farms will be studied by a team led by **Dr. Paul Plummer**, associate professor of veterinary diagnostic and production animals medicine. Plummer will conduct on-farm research and development while looking at bovine lameness, a leading animal welfare issue. Plummer and his team has received a \$2 million USDA grant to fund the project.

CONGRATULATIONS!

**FOUR TO BE RECOGNIZED WITH COLLEGE TOP AWARDS**

The College of Veterinary Medicine is pleased to announce the recipients of the 2017 Stange and Switzer Awards, which were presented during Homecoming Weekend (Oct. 27-28).

**SWITZER AWARD**

**Dr. Bill Williams**, DVM and co-owner, Altoona Veterinary Hospital, Altoona, Iowa

**STANGE AWARD**

**Dr. Delbert "Hank" Harris** (DVM '67 & PhD '70 veterinary microbiology), founder, NOBL Labs and Harrisvaccines, Inc.

**Dr. Richard Ross** (DVM '59), Retired Dean, College of Veterinary Medicine

**Dr. Jack Shere** (DVM '87), Deputy Administrator for Veterinary Services at the U.S. Department of Agriculture, Animal Plant Health Inspection Service



Photo: Jim Heemstra

**CVM Alumni, Friends Recognized**

Several College of Veterinary Medicine alumni and friends were recognized during the 2017 Distinguished Awards Celebration at Iowa State University. Pictured left to right, Linda Lloyd, representing Dr. W. Eugene Lloyd (DVM '49 PhD veterinary pathology '70), recipient of the Distinguished Alumni Award; Lora and Russ Talbot, long-time CVM friends and donors, recipient of the Honorary Alumni Award; and Dr. William Hoefle (DVM '66, MS'74 veterinary clinical science and professor of veterinary clinical sciences), Order of the Knoll Faculty and Staff Award.



**W. Eugene Lloyd**  
DVM '49  
PhD '70 Vet Pathology

Dr. W. Eugene Lloyd left an indelible mark on the world and on the College of Veterinary Medicine in particular. It is with great

sadness that the college reports Dr. Lloyd's passing on April 25, 2017.

As the founder and driving force behind LLOYD, Inc., Dr. Lloyd made the lives of animals and humans around the world happier, healthier and more productive. For the past five decades, his pharmaceutical and nutritional products have

been used by veterinarians and physicians throughout the world to aid in the treatment of diseases and nutritional deficiencies.

Through LLOYD, Inc., Dr. Lloyd invested heavily in research and development. His commitment to exploring, sharing and applying knowledge is further demonstrated by his service through the U.S. Army Specialized Training Program, the U.S. Navy and Fleet Marine Corps, his 10 years as a professor of veterinary pathology and toxicology at Iowa State, and his 15 years as a private practitioner of veterinary medicine.

His remarkable generosity to the College of Veterinary Medicine both as a volunteer and

philanthropist has benefited students, faculty, staff and patients for many years. The Lloyd Veterinary Medical Center wouldn't have been possible without his and his wife, Linda's, generosity. The couple have also funded two highly visible named faculty positions in the college.

Dr. Lloyd was the recipient of numerous awards including the Distinguished Alumni Award from Iowa State, the Stange Award for Meritorious Service from the College of Veterinary Medicine, the Iowa State University Foundation Order of the Knoll Campanile Award, the American Board of Veterinary Toxicology's Service Award, and the Farm Bureau Award.

#GentleDoctorsEverywhere



Chuck Holz

#GentleDoctorsEverywhere

'76

Showing for a Good Cause

Photo courtesy of IVMA

Iowa House Representative and CVM alumnus Dr. Chuck Holz ('76) was on center stage at the Iowa State Fair during this year's Governor's Charity Steer Show. Holz, a two-term member of the Iowa House from LeMars, served as the celebrity showperson, leading the IVMA/CVM sponsored steer, "Oliver," around the Pioneer Livestock Pavilion. The annual event raises money for the Ronald McDonald Houses in Iowa. Oliver was raised by Megan Osborn of Boone, who also represented Boone County in the State Fair Queen Contest.



#GentleDoctorsEverywhere

'08

Laurie Meythaler-Mullins



Faces of Iowa State

Photo: Dave Gieseke

For four hours 39 individuals were on stage at the Iowa State Fair. No, they weren't performing on the mainstage. Instead they were sitting for portraits at the Iowa State University booth in the Varied Industries Building. One of the participants was Dr. Laurie Meythaler-Mullins ('08), past president of the ISU Veterinary Medical Alumni Association and an associate veterinarian at the South Des Moines Veterinary Center. All 39 portraits are on display this fall in the "Faces of Iowa State" exhibit at the Brunner Art Museum at Iowa State before traveling to four other Iowa art galleries in the spring.



#GentleDoctorsEverywhere '52

Wayne Danker

**70 Years of Service**

*Photo courtesy of Your West Valley News*

*Dr. Wayne Danker, second from left, has a history of long-time service. The 1952 DVM graduate was dedicated to his profession for more than 40 years. He has been married to his wife, Lanie, for more than 60 years. And recently he was recognized by the American Legion for 70 years of service to the organization. Danker or "Doc" joined the Army Air Corps in 1943 and was a gunner on the B-17 Flying Fortress. He has been an active member of the American Legion ever since.*



#GentleDoctorsEverywhere '50

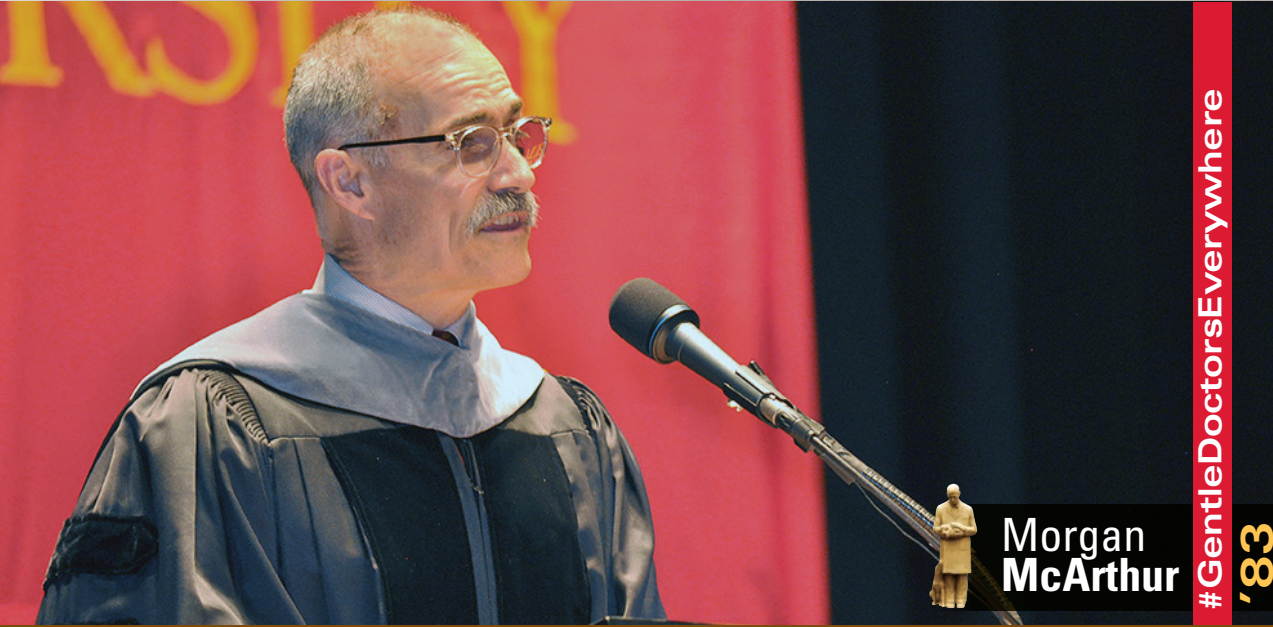
John Melcher

**Root, Root for the Cubbies**

*Photo courtesy of Tom Bauer, Missoulian*

*Last fall was a great time to be a Cubs fan. And longtime Montana politician and CVM graduate Dr. John Melcher's ('50) love for the loveable losers was chronicled in the Missoulian. Melcher, who was the first veterinarian elected to the U.S. Senate, says he remembers listening to Cubs games with his mother on the radio when he was 6 and was recovering from a leg wound he suffered in World War II at the Battle of the Bulge the most previous times the team played in a World Series. Melcher served two terms in the U.S. Senate and his 1982 race became famous in college political science for his use of talking cows in a TV commercial. "Did you hear about those city-slickers out here bad-mouthing Doc Melcher?" one cow asks. "One of them was stepping in what they've been trying to sell," a bull responds. "He was calling me a steer." "That'll come as some surprise to junior there," the cow replies. No surprise that Melcher won that election.*





#GentleDoctorsEverywhere

Morgan McArthur

'83

**From Veterinarian to World Champ**

*Photo: Dave Gieseke*

When Dr. Morgan McArthur ('83) takes the stage, you may not know the subject of his talk, but one thing is for sure – it's going to be entertaining. McArthur is a large animal veterinarian who happens to also be an acclaimed international public speaker. A Toastmasters World Champion of Public Speaking, McArthur is also an agriculture and community resource development educator for the University of Wisconsin Extension. He says his personal motto is "If it isn't fun, it shouldn't be done," which was reflected during the humorous and message-driven commencement address to the College of Veterinary Medicine's Class of 2017 last May. McArthur spoke of his less-than-stellar academic career while encouraging the graduates as they entered the work force.



#GentleDoctorsEverywhere

'78

John Fawcett

**A Passion for Painting**

*"Compadres" watercolor/Photo courtesy of Dr. John Fawcett*

For the past 20 years Dr. John Fawcett ('78) has been pursuing a second dream. For the previous two decades, Fawcett was an equine and small animal veterinarian in Pennsylvania. While he had a passion for veterinary medicine, Fawcett also loved to draw and paint. That's exactly what he has done since selling his veterinary practice in 1996. And his leap of faith has paid off. He has been invited to participate in some of the most prestigious Western art shows in the country and has his works displayed in galleries throughout the western United States including a 10th anniversary show at the Steamboat Art Museum in Steamboat Springs, Colo., December 2017 through April 2018.



FOREVER  
**TRUE**  
FOR IOWA STATE

## FOREVER TRUE, FOR IOWA STATE *Seeks to Raise \$70 Million for College*

The historic “Forever True, For Iowa State” fundraising campaign is seeking to raise \$1.1 billion.

The College of Veterinary Medicine is playing a significant role in the “Forever True” campaign, seeking to raise \$70 million in a series of eight priority projects. To date almost \$50 million has been raised for the campaign scheduled to end in 2020.

One of the priorities is increasing scholarship support for students.

“Our recent private support efforts have helped increase the amount of scholarships the college awards annually,” said Dr. Pat Halbur, the Dr. Stephen G. Juelsgaard Interim Dean of Veterinary Medicine. “But that figure will need to increase significantly over the coming years if this college is going to make a real impact on the rising levels of debt our students accumulate.”

### PRIORITY GOALS

#### Total Goal - \$70 million

- **Chairs and Professorships - \$10 million.** Through private support, the college will be able to retain and recruit high-quality faculty researchers and clinicians.
- **DVM Scholarships - \$15 million.** The median debt load for an Iowa State veterinary medicine student is \$135,787, below the national average but a figure that can be decreased with additional private support.
- **Hospital Excellence - \$10 million.** The welfare of small and large animals are being improved on a daily basis but additional funds are needed to maintain the level of care offered.
- **Student Educational Space - \$5 million.** The college is in desperate need of additional functional student study areas.
- **Graduate Fellowships - \$5 million.** Additional and innovative graduate fellowships are essential to enable the college to pursue top graduate students.
- **Veterinary Diagnostic Laboratory - \$20 million.** A state-of-the-art facility when it opened in the 1970s, demand for the services at the VDL has left the facility with inadequate space and potential biosafety issues. A new, stand-alone VDL is being sought with a proposed \$124 million in state appropriations.
- **Strategic Funds - \$5 million.** These dollars will elevate aspects of the college’s programs both strategically and as needs develop.



Dr. Roger and Marilyn Mahr with former Dean Lisa K. Nolan  
Photo: Christopher Gannon

## Professorship in One Health Established in the College of Veterinary Medicine

A new endowed professorship has been created in the College of Veterinary Medicine through a recent gift from Dr. Roger ('71) and Marilyn Mahr of St. Charles, Ill.

The Dr. Roger and Marilyn Mahr Professorship in One Health will further empower Iowa State with visionary leadership to promote and help facilitate innovative multi-disciplinary collaboration that embraces the university's land grant mission.

Dr. Mahr, a small animal practitioner throughout his career, served as president of the American Veterinary Medical Association in 2006-07. During his presidency, he revealed a vision for a One Health Initiative, which the AVMA established in collaboration with the American Medical Association in 2007.

"Iowa State's land grant mission which focuses on collaborative education, research and outreach, is truly consistent with the One Health approach," Dr. Mahr said. "This professorship will inform all audiences, including students, faculty and researchers about the importance of transcending institutional and disciplinary boundaries and transform the way human, animal, plant and ecosystem health professionals work together to improve the health of all living things and the environment worldwide."

The Mahrs have long supported Iowa State's One Health initiative. The College of Veterinary Medicine One Health Lectureship Series was established in 2011 in honor of Dr. Mahr as he served as the chief executive officer of the One Health Commission, which was headquartered at Iowa State from 2011 through 2013.

## New Named Professorship Established by Roy Schultz

Legendary swine veterinarian Dr. Roy Schultz ('60) is an internationally renowned swine veterinarian who brought the latest technologies to Iowa's farms.



Now Schultz, who lives in Avoca, Iowa, hopes a new named professorship he has established will enable future swine veterinarians to make an impact on the industry. The Roy A. Schultz Endowed Professorship will allow the holder to take some risks, be innovative with the hopes of making discoveries that will impact swine production medicine.

As a young veterinary student, Dr. Pat Halbur, now the Dr. Stephen G. Juelsgaard Interim Dean of Veterinary Medicine, sought out Schultz for his knowledge of pig production and disease. Schultz served as a mentor to Halbur taking him on some of his many visits to Iowa pig farms.

"I have fond memories of Roy gathering the owner and farm staff around, performing necropsies, and using that opportunity to educate," Halbur said. "Great leaders in our profession find many ways to give back and this is just one example of how Dr. Schultz continues to have an impact on so many swine veterinarians."

## Biomedical Sciences Recipient of Carver Trust Equipment Gift

The Roy J. Carver Charitable Trust of Muscatine, Iowa, has committed \$450,165 to purchase cutting-edge equipment for the Department of Biomedical Sciences.

The grant will allow the department to acquire a desorption electrospray ionization (DESI) mass spectrometry imaging system that will significantly increase the spread at which human, animal and plant samples can be analyzed, providing unparalleled results in the accuracy and precision of the chemical characterization within a specific target sample.

This will be the first such equipment in the state of Iowa, benefitting research teams and students on campus, at other Regents institutions and throughout the region.

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Photo: Paul Gates

# INTERACTIVE CLASSROOM ONLINE

Renovations have been completed on the new interactive classroom in room 1485 in the College of Veterinary Medicine.

The classroom is available for both group work and lectures with tables and chairs movable for different configurations.

## Some other features include:

- Zoom conferencing available on the in-room computer or on the front display
- Lectures can be recorded to Echo360 including an adhoc recording feature on the podium touchscreen
- Annotation is available on the touch screens
- Glass boards are positioned around the room