CVM eNews - August 2019

Cornell College of Veterinary Medicine <cornellvet@cornell.edu>

Tue 8/20/2019 2:30 PM

To: Susanne K. Whitaker <skw2@cornell.edu>

Cornell University
College of Veterinary Medicine

eNews

August 2019

While there are fewer people on campus during the summer, everyone at the AHDC and elsewhere at CVM were as busy as ever!

Message from the Dean

Welcome to the start of the new academic year. Whether you are just returning to campus, have been here through the summer, or are new to Cornell and Ithaca, I hope you find the start of the academic year to be exciting and motivating. To students, faculty and staff joining us for the first time this fall, I am confident each of you will find the

College of Veterinary Medicine to be a rewarding place to work and study. I look forward to getting acquainted at our annual Fall Celebration, monthly “Many Voices, One College” discussions and other events this fall.

We are nearing the conclusion of a productive summer that included research training programs, hosting City University of Hong Kong BVM students, well-attended Summer College Courses and continuing growth in clinical, diagnostic service and research activities. The renovation project on the first floor of Schurman Hall has made great progress and will continue throughout the fall semester. This renovation will include new research, offices and support spaces for the Department of Population Medicine and Diagnostic Sciences and renovated laboratory space for Clinical Pathology. The project will also include a new 800-square-foot multi-purpose room to support wellness, fitness and other activities. We expect to open the new space in early 2020.

Another major activity for the college this academic year will be to host the 2020 National Symposium of the Student Chapter of the AVMA on March 14-16, 2020. This event will bring many veterinary students from around the country to our campus to participate in lectures and wet labs. Congratulations to our SCAVMA team for bringing the event to Cornell and thanks to all who are participating in the planning.

Lastly, we are in the process of developing more opportunities to engage with the CVM community, where people can interact with each other and the leadership team in informal settings. Watch for announcements about those events in the next few weeks.

I wish all of you the best for a successful academic year and look forward to our continued work together.

Sincerely,

Lorin D. Warnick, D.V.M., Ph.D. ’94
The Austin O. Hooey Dean of Veterinary Medicine

Latest News

Schuler warns federal government committee of dangers of chronic wasting disease

Deadly protein partnership reveals new drug targets for viral diseases

Construction projects earn LEED gold, silver honors

August Trivia

To celebrate the beginning of the fall semester, this month's trivia question is about the historical scholastic requirements of the veterinary program. Want to test your knowledge of CVM's history? Click the red "August Trivia" button above!

June's trivia question: What alum left the college as a student of the famous F.H. Fox and then returned as his dean?

Answer: Robert Phemister, D.V.M. '60. Phemister served as dean of CVM from 1985-1995.

Community Notes

Hoof it for the Horses 5K Race through the Cornell Equine Park - Register now for the Saturday, Aug. 24 event.

The college is hosting the 2020 SAVMA Symposium! Interested in volunteering or have questions? Reach out to the SAVMA general managers at savmasymposium2020@gmail.com.

Hellos, goodbyes and HR update

Awards and Honors

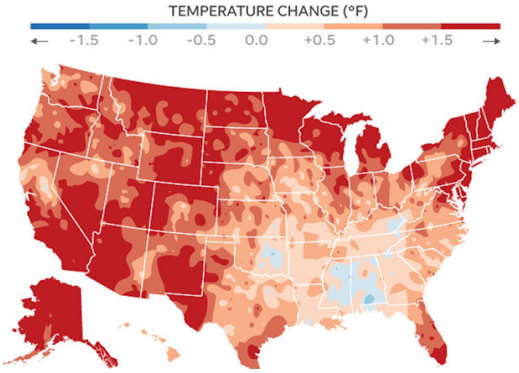
Join us in congratulating the following CVM community members on their various awards and accomplishments:

- **Cynthia Leifer**, Ph.D. '00, was nominated to and accepted a seat on board of the President's Council of Cornell Women.
- The M.P.H. program welcomes five new faculty and staff. Welcome to **Dr. Lorraine Francis; Elizabeth Fox, Ph.D.**

'16; Elizabeth Goldberg; Dr. Karla Hanson; and Dr. Yihong Li!

Congratulations to all those honored at the employee celebration! [See the recipients of the Staff Service Award and the winners of the Dionne Henderson Staff Excellence Award.]

CVM in the News



USA Today: Climate change could threaten dogs with diseases pushing into new parts of the U.S.A.

Bruce Kornreich, D.V.M. '92, Ph.D. '05, describes how climate change is putting more dogs at risk.

CNY Central: Cornell University's renowned veterinary program

CNY Central visited the Cornell University Hospital for Animals in this profile of CVM's rich learning environment.

More News **More Events**

Have something to share?

Let us know what you want to see in the Community Notes portion of eNews. Contribute events and articles which might be of interest to your colleagues and the CVM community at large. Win an award? Publish a paper? Let us know.

Send in your submission by 9/13/19 to cornellvet@cornell.edu. Make sure to put eNews in the subject line so that your item can be considered for the next issue.

Cornell's Dr. Krysten Schuler warns federal government committee of dangers of chronic wasting disease, advocates for preventive measures

Thursday, June 27, 2019 - 3:22pm

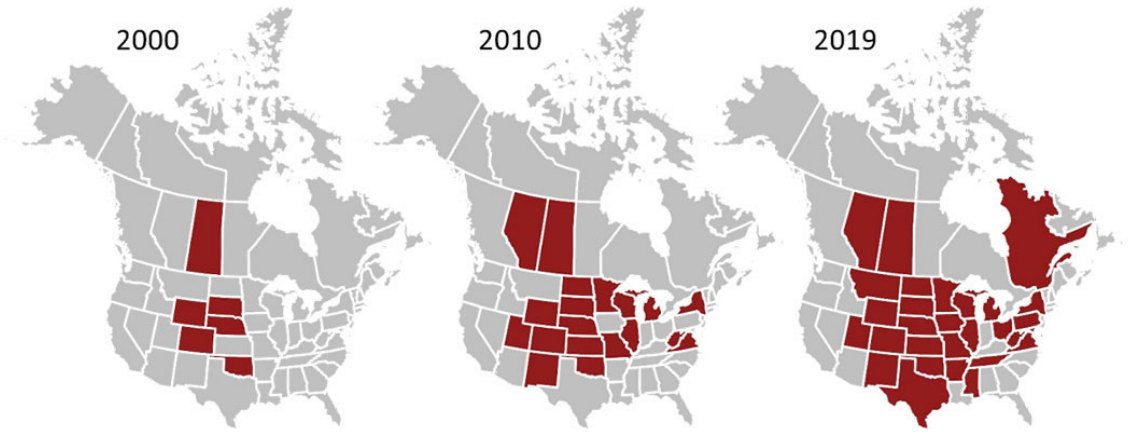
To offer her expert testimony and recommendations on chronic wasting disease, wildlife disease ecologist Dr. Krysten Schuler of the College of Veterinary Medicine joined the U.S. House of Representatives Committee on Natural Resources for their June 25 subcommittee hearing on this deadly disease. Photo provided.

After a brush with chronic wasting disease (CWD) in two captive deer herds in 2005, New York became the only state to successfully prevent the disease's further spread within its borders. Other states, however, haven't been so fortunate. Pennsylvania, Ohio, Texas and many others are seeing this deadly disease with increasing frequency.

To offer her expert testimony and recommendations on the subject, wildlife disease ecologist Dr. Krysten Schuler of the College of Veterinary Medicine joined the U.S. House of Representatives Committee on Natural Resources for their June 25 subcommittee hearing, "Chronic Wasting Disease: The Threats to Wildlife, Public Lands, Hunting, and Health."

"Chronic wasting disease is the most serious threat facing wild deer and elk populations in North America today," said Schuler, who has been studying the disease since 2002. In that time, she has seen CWD spread to a total of 26 states, four Canadian provinces and four countries outside of North America: Finland, Norway, South Korea and Sweden.

“Its presence in wild animals makes it unique and exceedingly difficult to study,” said Schuler. CWD was detected in captive cervid herds in 1967 and then in wild North American cervids in 1978. The cervid family comprises members of the deer family, such as deer, reindeer and elk. This highly contagious disease degrades the animal’s neurological system, leaving holes in the brain. Animals may be infected for a year or more before displaying symptoms, which include losing its fear of people, drooling, weight loss, thirst and poor coordination. It is fatal in all cases, as there are no vaccines, antibiotics, cures or treatments. Infected animals are also more likely to be killed by a predator, hunter or vehicle.



Prior to 2000, chronic wasting disease was found in wild cervids in only four states and captive cervids in one state and one province. By 2002, CWD moved east of the Mississippi River to Wisconsin. Since that time, it has been found in 26 states and four Canadian provinces (Toronto Zoo, Ontario not shown). Image credit: Cornell Wildlife Health Lab

Deadly and nearly impossible to eradicate

CWD is in the family of universally fatal diseases known as transmissible spongiform encephalopathies, caused by a misfolded protein called a prion, Schuler explained to the committee. Prions are resilient pathogens resistant to high heat and harsh chemicals. They transmit efficiently from animal-to-animal or through contaminated environments. Even an infected animal’s regular body fluids, like urine and blood, contaminate the ground — and these prions bind to soil particles and remain in the environment for up to 16 years.

Prions can also bind to plant tissues; alfalfa, wheat, corn and tomatoes are all crops that have tested positive so far. This may be the root of exposure for wildlife, domestic animals and humans, said Schuler.

Although there are no known cases of CWD in people, there is concern that the prions could adapt to new hosts and someday infect humans, just as the prion culprit of mad cow disease did in the United Kingdom in the 1990s.

“It is the similarity between CWD and bovine encephalopathy, or mad cow disease, that is most concerning,” said Schuler. “Over 4.5 million cows were killed in the United Kingdom and 231 people died after eating infected beef.”

The Centers for Disease Control and Protection have therefore issued recommendations that people not knowingly consume CWD-positive venison, and that anyone hunting in a CWD-positive area have their animal tested before consumption.

"Once CWD becomes established in a population, it is nearly impossible to eradicate."

— Dr. Kysten Schuler, wildlife disease ecologist

“Once CWD becomes established in a population, it is nearly impossible to eradicate. Therefore, it’s critical that we follow a precautionary principle in dealing with CWD, and take preventative action in the face of uncertainty,” advised Schuler.

Schuler and her colleagues at the New York State Wildlife Health Program have done just that for New York. She and Dr. Elizabeth Bunting, a wildlife veterinarian at Cornell, have worked together since the start of the program to spearhead training for those who come into contact with animals in the field, such as biologists, law enforcement officials and even taxidermists — not just to monitor for CWD, but for plenty of other diseases and conditions as well.

“New York has maintained an aggressive stance toward CWD and continues to serve as a model for programs in other states,” said Schuler.

Recommendations for curbing the spread of disease

Because the disease is present in wildlife and can contaminate the environment for long periods of time, it is unlikely that North America can eradicate CWD completely. Therefore, prevention and management are key. “Large sections of the country have not encountered CWD yet and can take steps to keep prions out,” said Schuler, pinpointing the biggest hurdles to doing so as the natural movement of live infected cervids and the transportation of their parts and products by hunters and others.

In her testimony to the committee and in answer to their subsequent questions, Schuler offered recommendations for combating the spread of CWD, including sustained fiscal support for state and federal wildlife agencies, as well as veterinary and wildlife diagnostic labs; research funds to work toward new breakthroughs in treatment and prevention; and improved support from stakeholders up through their elected officials to raise the disease to a national level of prominence.

Subcommittee witnesses from left: Dr. Krysten Schuler, Jason Summers, Carter Smith and Nick Pinizzotto. Photo provided.

“At its core, CWD erodes our public trust resources,” said Schuler. “Any meaningful strategies to combat CWD will require long-term approaches with sustained state and federal efforts.”

Schuler’s written testimony is available online, and the House Natural Resources Committee Democrats livestreamed the proceedings on YouTube.

By Melanie Greaver Cordova

Deadly protein partnership reveals new drug targets for viral diseases

Wednesday, July 31, 2019 - 4:25pm

It sounds like a plot point from a sci-fi movie: two different and dangerous monsters meet, conjoining into a hybrid that is more powerful and deadly than either counterpart. Yet Dr. Hector Aguilar-Carreno, associate professor in the Department of Microbiology and Immunology, and his research team, have proved truth to be stranger than fiction in a recent study published in the Journal of Virology and featured on its cover which details how two highly lethal viruses, Nipah and Hendra, have greater pathogenic potential when their cell-sabotaging proteins are combined. "Coinfections with these two viruses can occur in the same host, but we didn't know what would happen if their proteins combined," says Aguilar-Carreno. "We discovered that not only could they work together, they can work even better than on the original viruses."

The Aguilar-Carreno research team are world experts on how Nipah and Hendra viruses attach to and fuse with their hosts cells. Their focus is on the viral fusion proteins (or F proteins) and attachment proteins (or G proteins). In previous studies, the team unveiled how the two proteins physically interact to enable viral infections: a G protein attaches, key-in-lock, to the cell. Once attached, G triggers F to perform "gymnastics" – flipping up and back down to trigger fusion between the cellular and viral membranes in the first real moment of infection.

Aguilar-Carreno knew this physical dance between G and F was a crucial piece to viral infection, but was curious to know how that dance might change if the proteins got new partners. After all, both Nipah and Hendra viruses can potentially co-infect their natural host, the fruit bat, meaning that a protein partner-switch is likely to occur in the wild. The interplay between bats and viruses came to life on the issue cover of the Journal of Virology that featured this research, painted by Aguilar-Carreno's husband, Armando Pacheco.

He and his team tested out different Nipah-Hendra protein combinations using genetic approaches in human cells in petri dishes. In some pairings, the two gripped each other in a tight, tango-like embrace. But one hybrid – a Hendra F and Nipah G – behaved like Lindy Hoppers, allowing the F protein to perform "aerials" that heightened fusion between the virus and the cell. "This combination of proteins had a looser interaction," says Aguilar-Carreno. "This looseness actually corresponded to greater fusion capability — and therefore greater pathogenicity."

Dr. Hector Aguilar-Carreno

This hybrid protein power-couple has interesting implications. “I find it fascinating. The tightness of the interaction is so crucial for these two proteins,” says Aguilar-Carreno. “If they’re too tight, they can’t coordinate correctly to get into the cell. And now that we know this, we can leverage that to stop viral-cell fusion,” says Aguilar-Carreno. He notes that this kind of therapeutic might be used to improve vaccine efficacy, or as an alternative to vaccines. His lab is working on both vaccine approaches on animal models, as well as therapeutic approaches, both helped by this new knowledge.

Aguilar-Carreno’s lab is also working on related research that may lead to vaccine-free therapies or improved vaccines to treat enveloped viruses, which include major infectious diseases such as HIV and influenza. “Our work could lead to drugs that enable inventions such as a flu vaccine with broader protection and greater efficacy,” says Aguilar-Carreno. “The data is looking so good so far that it almost looks made up. We’re very excited about this, and hope to tell the story about these promising advances in the near future.”

-By Lauren Cahoon Roberts

A version of this story appeared in the Cornell Chronicle

Construction projects earn LEED gold, silver honors

Monday, June 24, 2019 - 2:46pm

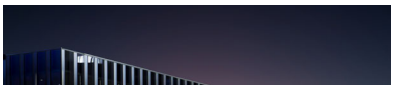
The north-facing, clerestory windows high above the new entrance, upper left, bathes the new atrium at the College of Veterinary Medicine in natural light. The project was certified as LEED gold.

Cornell's College of Veterinary Medicine has earned gold and silver glory, all in the name of green.

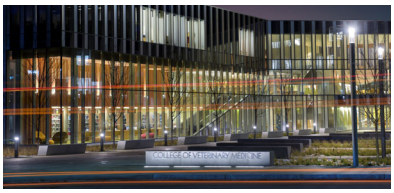
The college's $91.5 million Class Expansion Project was certified LEED (Leadership in Energy and Environmental Design) gold in late May, while its Small Animal Community Practice service building was certified LEED silver in early June.

The U.S. Green Building Council conducts LEED accreditation, and these projects mark the 24th and 25th certifications on campus, pushing the university to more than 2 million square feet of indoor space that ultimately helps the environment.

"The architects, the contractors and the university worked very hard to meet the LEED requirements," said Wayne A. Davenport, director of facilities at the College of Veterinary Medicine. "Now we have this beautiful space, and LEED helps you get there."



To achieve LEED gold, the Class Expansion Project embraced high-tech approaches to sustainability. Daylight bathes the new atrium, thanks to



north-facing, clerestory windows high above the new entrance. The solar control glass provides ample, functioning light to fend off summer's solar heat, but when the sun goes down or disappears behind clouds, sensors turn on the indoor lighting, as needed.

The expansion project's highly insulated roof, with the strong R value (insulation performance) of 40, minimizes winter heat loss. Heating, ventilation and air-conditioning energy is reduced by using heat exchangers and radiant cooled or heated slabs in the gallery, and demand-controlled ventilation throughout the new space.

High-efficiency, reduced-flow water fixtures are incorporated throughout the building, which saves water usage by 30 percent. Wood products throughout building were harvested from sustainably managed forests. Paints, adhesives, flooring, wood products and furnishings met strict requirements to reduce indoor air pollution and promote a healthy environment, and the project diverted more than 95% of demolition and construction waste away from landfill.

Davenport said the project made enough space to accommodate future class expansion, created a formal entrance off Tower Road and improved the pedestrian- circulation flow in the buildings.

"It's fair to say that this atrium is now the heart of our college – our 'living room,' so to speak – where everybody goes," said Davenport. "Our students, faculty and staff all meet there now. The expansion has transformed us. Striving for LEED certification helped to create a strong sense of community in the center of our college."

On the other end of the college's complex, the Small Animal Community Practice service building earned LEED silver certification. The building will provide

fourth-year veterinary students with a realistic view on working in a small-animal practice.

The Small Animal Community Practice service building earned LEED silver certification.

The facility refreshes a highly visible corner of the veterinary campus, replacing a poultry science area. "Site reuse is important," said Matthew Kozlowski, the university's green building program manager.

The clinic's design offers water and energy use savings in a high-performance building, according to Kozlowski. The energy system operates 45% more efficiently and the plumbing reduces water usage by a one-third compared with similar buildings.

For the Class Expansion Project, the architectural firm was Weiss/Manfredi, New York City; the engineers were Altieri Sebor Wieber, Norwalk, Connecticut; and the LEED consultants were Atelier Ten, New York City.

For the community practice service building project, the architectural firm was Holt Architects, Ithaca and the engineers were M/E Engineering, Rochester, New York.

By Blaine Friedlander

This story originally appeared in the Cornell Chronicle.

CVM eNews - August Trivia

Have an idea for a trivia question? Send it to cornellvet@cornell.edu with "eNews" as the subject line.

To see if you got the answer correct, click "View Accuracy" after you submit your response. To see how everyone else answered, click "See Previous Responses."

The first building at Cornell dedicated entirely to veterinary medicine opened its doors in 1896. What was the scholastic requirement for students entering the veterinary program at that time?

- ◯ Must have a high school diploma
- ◯ Must have already earned a degree in human medicine
- ◯ Must have a bachelors of veterinary science
- ◯ There was no scholastic requirement

SUBMIT

Hoof It For The Horses 5k 2019

Saturday, August 24, 2019 10:00 AM (GMT-5)

Event info

Sport: **Running**
Location: **Ithaca, NY, United States**
Registrations: **11**

Registration closes: **Saturday, August 24, 2019 10:00 AM (GMT-4)**
Organized by: **Cornell Equine Park**

Event notes

5K race through the Cornell Equine Park. All ages are welcome! Proceeds go toward developing scholarships for equine-focused veterinary students.

EVENT: 5K RUN
The Hoof It for the Horses 5K race will start on Saturday, August 24th at 10:00AM.

Registration: Register before August 10th for $25. If after or on race day the cost will be $30. Please bring it in cash or check form.

For donations please follow this link: Donate Here

Course: Fast 5k loop through the Cornell Equine Park. The start and finish is at the Equine Park. The race is fashioned like a cross-country meet and there may be wet or muddy areas.

Facilities – Parking is available within a short walking distance to the race.

Awards: Completion medals given out.

Food provided post race.

Please note there are no dogs allowed for this race.
START TIME: 10:00am EDT
END TIME: 12:00pm EDT

Event registration is not available at this time

• Sorry - registration for this event is closed

50th Annual

SAVMA Symposiu

march 14 - 16, **2020**

ithaca / new york

Every year, a veterinary school hosts an educational symposium for veterinary students from across the country. The three-day program consists of interactive lectures, wet labs, academic and athletic competitions, an exhibit hall, and the SAVMA House of Delegates bi-annual meeting. SAVMA Symposium is an educational opportunity that exposes students to a variety of topics outside their typical curriculum, while offering unique networking experiences and career building skills.

ABOUT

"...any person, any study."

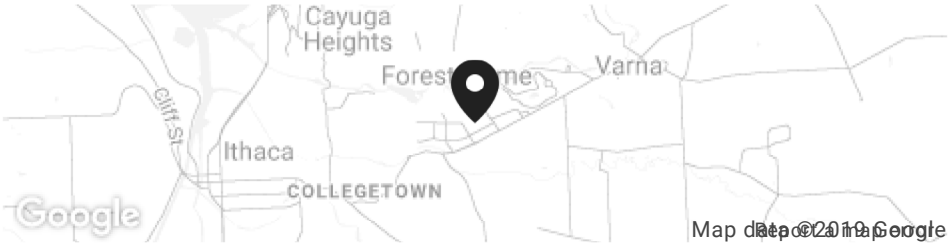
— Ezra Cornell

REGISTER

Cornell University College of Veterinary Medicine

602 Tower Road

Ithaca, NY 14853



SAVMA Symposium

March 14 - 16, **2020**

Cornell University College of Veterinary Medicine

August 2019: Hellos, goodbyes and HR update

Help us welcome new employees who joined the CVM community June-July and bid a fond farewell to those who have retired.

New Hires

- **Jeff Berry**, Animal Attendant S04, Cornell University Hospital for Animals
- **Cristina Carter**, Administrative Assistant V, Department of Population Medicine and Diagnostic Sciences
- **Jennifer Gulliver Delmar**, Licensed Veterinary Technician - CAH Surgery, Cornell University Hospital for Animals
- **Diego Diel**, Associate Professor - AHDC Virology, Department of Population Medicine and Diagnostic Sciences
- **Rebecca Maria Eddy**, Instructor - Zoological Medicine, Department of Clinical Sciences
- **Louise Ferguson**, Licensed Veterinary Technician - CAH Floater, Cornell University Hospital for Animals
- **Karla Hanson**, Senior Lecturer, Department of Population Medicine and Diagnostic Sciences
- **Carol Jennings**, Multimedia Producer, Educational Support Services
- **David Kelly-Widmer**, Facilities Coordinator Projects II, RMSS-Facilities
- **Theresa Ann Lagasse**, Department Finance Specialist, Department of Clinical Sciences
- **Ashley Rose LeCuyer**, Animal Attendant S04, Cornell University Hospital for Animals
- **Stacie Mann**, Research Administration Assistant, Department of Population Medicine and Diagnostic Sciences
- **Sarah Mogil**, Licensed Veterinary Technician - Nursing Care Units, Cornell University Hospital for Animals
- **Elizabeth Aguilera Nunez**, Endocrinology - Medical Technologist Assistant, Animal Health Diagnostic Sciences
- **Carly Elizabeth Poulin**, Licensed Veterinary Technician - SMPR - Cornell University Hospital for Animals
- **Amanda Rae Rainey**, Licensed Veterinary Technician - Nursing Care Units, Cornell University Hospital for Animals
- **Jennifer Elizabeth Randol**, Licensed Veterinary Technician - Surgery, Cornell University Hospital for Animals
- **Beth Rhoades**, Lecturer, Department of Microbiology and Immunology
- **Rachel Lynn Slater**, Technician III, Department of Molecular Medicine
- **Jinzhi Yu**, AHDC Diagnostic Tech I - Molecular Diagnostics, Animal Health Diagnostic Center

Retirements

- **Judith Appleton**, Professor, Baker Institute for Animal Health
- **Roy Levine**, Associate Professor, Department of Molecular Medicine
- **Mary Linton**, Department Manager, Department of Microbiology and Immunology
- **Denise Ann Mahaney**, Finance Specialist III, Department of Clinical Sciences
- **Richard Edward Rawson**, Senior Lecturer - Veterinary Curriculum, Department of Biomedical Sciences
- **Amy Ellen Yeager**, Veterinarian, Cornell University Hospital for Animals

Human Resources Update

Do you know a Cornell employee ROCKSTAR?

Make sure they get the recognition they deserve—nominate them for one for one of the **President's Awards for Employee Excellence!** Beginning May 15, nominations will be accepted for four individual and one team award categories to recognize the achievements of staff and faculty at Cornell. Any employee can nominate another or a team, or, with specific documentation, can self-nominate.

For more information, see the President's Awards for Employee Excellence website or – beginning May 15 – log in to the nomination form directly.

Retroactive Time Entry is Now Self-Service

Any time entry or time off after 8/1/2019 that needs correcting can now be done by the Employee, Manager, Timekeeper, or Payrep.

- Simply add a new time block, select the time block you want to correct and make the necessary corrections, or click 'Delete' to erase the time block completely.
- Then SUBMIT the revised time for approval – note, if you are in a role that auto-approves, you are done; if not, the time MUST be approved by the manager, timekeeper or Payrep in order to be paid.
- Time Off Corrections should be done following the Time Off Correction procedures outlined in the following job aid.

Note: If the revision is PRIOR to 8/1/2019, the Manager, Timekeeper, or Payrep will need to submit the time on your behalf for the adjustment to be reflected on your paycheck using the retro forms on the payroll website.

Current Nonacademic Open Positions

The list below is dynamic and updated regularly. For additional information, please visit the Cornell Careers Page at https://hr.cornell.edu/jobs.

- Nursing Care Supervisor - Cornell University Hospital for Animals
- Licensed Veterinary Technician-*Emergency & Critical Care* - Cornell University Hospital for Animals
- Animal Attendant SO 4 - Cornell University Hospital for Animals
- Licensed Veterinary Technician - Cornell Ruffian Equine Specialists
- Animal Care Supervisor - Cornell University Hospital for Animals
- Part-Time Veterinary Pharmacist - Cornell University Hospital for Animals
- Diagnostic Technologist - Animal Health Diagnostic Center
- Laboratory Operations Assistant II - Animal Health Diagnostic Center
- Laboratory Manager - Kurpios Lab, Molecular Medicine
- Laboratory Technician III - Rudd Lab, Microbiology & Immunology
- Administrative Assistant III - Dept. of Clinical Sciences
- Administrative Assistant (Conference/Academic Program Coordinator) – Dept. of Biomedical Sciences

Academic Open Positions

For a listing of open academic positions, please visit: https://apps.hr.cornell.edu/recruiting/facultycareer.cfm.

For information on the topics above, please contact the CVM Office of Human Resources at 607-253-4111.

MPH Program Welcomes Five New Faculty and Staff

eag256 July 19, 2019 One Health @ Cornell, Uncategorized

This summer the MPH Program will welcome five new faculty and staff. These hires expand the depth and breadth of our program's capacity and expertise and we are exited for you to meet them!

Lorraine Francis, DrPH, MHA, Lecturer

Lorraine Francis, DrPH, MHA, is a native of Trinidad and Tobago with a passion for public health that spans over 18 years. She has previously worked in a public health laboratory and more recently in the Surveillance Division of the Caribbean Public Health Agency (CARPHA), formerly the Caribbean Epidemiology Centre (CAREC). Her training and experiences include – epidemiology, surveillance, emergency and outbreak response, laboratory systems, environmental health, tourism and health and research. She has a keen

interest in Infectious Disease and Environmental health research given the challenges with climate change especially on Small Island Developing States. She will be appointed as a Lecturer at Cornell and will co-teach the Public Health Practice courses on Monitoring & Evaluation and Planning, and a new Infectious Disease course.

Elizabeth Fox, PhD, Lecturer

Elizabeth Fox, PhD, is a nutritionist and social scientist whose work focuses on improving the design and implementation of nutrition policies such that they effectively reach intended beneficiaries in culturally sensitive ways. She completed her PhD in International Nutrition from the Division of Nutritional Sciences at Cornell University in 2016. She is currently a Hecht-Levi Postdoctoral Fellow in the Global Food Ethics and Policy Program at Johns Hopkins University's Berman Institute of Bioethics, where her research investigates value tradeoffs across the food system to support healthy and sustainable diets. She will be appointed as a Lecturer at Cornell and will co-teach the Public Health Practice courses on Monitoring & Evaluation and Planning, and a new Food Systems course.

Elizabeth Goldberg, Assistant Director

Elizabeth Goldberg has joined the MPH team as Assistant Director of Operations and Special Projects. She was previously the Senior Program Manager for the Department of Population Medicine and Diagnostic Sciences. In this role she managed programs to support faculty collaborations and community including the Cornell Dairy Center of Excellence and the Antimicrobial Resistance Research and Education Initiative, worked very closely with the Director of Business Operations on departmental administrative management and supervised staff. Prior to moving to Ithaca she was the HR Administrator for the

Research Laboratory of Electronics at MIT. She is a graduate of the NYU Gallatin School of Individualized Study.

Karla Hanson, PhD, Senior Lecturer

Karla Hanson, PhD, has been at Cornell for 14 years as a Senior Research Associate in the Division of Nutritional Sciences. She studies issues of food insecurity, food access, and dietary quality, and she works with Cornell Cooperative Extension and other community partners. Currently, she is the co-PI of a randomized intervention trial to estimate the effectiveness of cost-offset (subsidized) community supported agriculture for low-income families with children. She joins the program as Senior Lecturer and will co-teach the Public Health Practice course on Monitoring & Evaluation, and a new course for Food Systems.

Yihong Li, DDS, DrPH, MPH, Senior Lecturer

Yihong Li, DDS, DrPH, MPH, received her DDS from the Peking University School of Stomatology, China, MPH, DrPH, and Postdoctoral Fellowship in molecular epidemiology at the University of Alabama at Birmingham. Her doctoral dissertation focused on the understanding of the connection between malnutrition and the human tooth developmental defects. Her postdoctoral research project focused on maternal factors that could influence cariogenic bacterial transmission from mother to infants. Over the years, she has expanded her research focus on oral disease risk assessment and epidemiology of oral microbiota associated with dental caries and other chronic diseases. Before coming to Cornell, Yihong was a Professor of Basic Science and Craniofacial Biology at the New York University College of Dentistry. She has served as the principal investigator and co-investigator of several NIH-funded projects,

published 88 scientific papers in peer-reviewed journals, and mentored more than 70 dental and graduate students' research projects during her tenure at the NYU College of Dentistry. Many of her publications are recognized worldwide by colleagues in the field. Her students have received a variety of research awards. She also served on several national and international scientific review committees, and a reviewer for several peer-reviewed scientific journals. She will join the program as a Senior Lecturer and will teach Biostatistics, and another new course.

"Words from the Field" Summer 2019 Student Applied Practice Experiences

Cornell University
College of Veterinary Medicine

The 2019 Staff Service awardees and recipients of the Dionne Henderson Staff Excellence Award

All photos by Rachel Philipson

Congratulations to the Staff Service Award Recipients

This tradition of recognition is a grateful celebration of the outstanding staff whose work contributes to the success of Cornell's students, faculty, alumni and colleagues at the university. Congratulations to this year's awardees!

20 Years of Service

- Rosemary Adessa
- Gordon Andrews
- Keila Dhondt
- Kathy Fowler
- Belinda Gross
- Kimberly Hayes
- Jen Powers

- Jai Sweet, Ph.D. ’96
- Jessica Divell
- Cathy French
- Ariana Harris ’05
- Paul Jennette ’87
- Sherri Stull
- Victoria Thomas

25 Years of Service

- Catherine Brown
- Scott Butler
- Curtis Kretz ’94
- Laurie Lychalk
- Joseph McLain
- Casey Morgan
- Michelle Stefanski- Seymour
- Dean Wolf

30 Years of Service

- Joby Cowulich
- Wendy English
- Brenda Henley
- Diane Kilts, M.H.A. ’96
- Kim Salino
- Deborah Watrous

- Judy Withers

35 Years of Service

- Barbara Catlin
- Gwen Frost
- Patricia Janhonen
- Vonda Royce
- Karen Wilcox

40 Years of Service

- Linda Benson
- Pamela Schenck
- Amy Yeager ’76, D.V.M. ’79

The Dionne Henderson Staff Excellence Award Winners

“Creating an environment of inclusion and empathy for all is something Dionne did naturally. She was kind to everyone. Her contagious smile, her positive attitude and her innate ability to find something good in everything and everyone made her a very unique individual. Dionne was the 'face' of our department working with both internal and external customers, building collaborations and mutually beneficial partnerships across campus. She was a resource to all who crossed her path. Dionne’s demeanor made her approachable, always taking time to listen and help someone as needed. Dionne was a strong resource to others sharing knowledge and information appropriately. In dealing with all situations she was diplomatic, courteous and welcoming. She demonstrated sound and ethical judgment when acting on behalf of the college and exercised appropriate confidentiality and commitment to her work.” - Carol Merkur

Congratulations to the recipients!

- Marie de Roos
- Gwen Frost

- Nicole Woodhull

Climate change could threaten dogs with diseases pushing into new parts of the USA

Elizabeth Weise, USA TODAY Published 11:05 a.m. ET June 15, 2019 | **Updated 2:34 a.m. ET June 19, 2019**

SAN FRANCISCO – As if this year's storms (/story/news/nation/2019/05/29/tornadoes-stuck-weather-pattern-brings-month-mayhem/1273501001/), floods (/story/news/nation/2019/05/29/arkansas-river-flood-danger-levees-threatened-arkansas-oklahoma/1268616001/) and heat waves (/story/news/nation/2019/06/11/heat-wave-western-us-bakes-temperatures-soar-120-degrees/1419639001/) weren't enough to worry you, some experts fear climate change (/story/news/2019/05/29/severe-weather-across-us-driven-climate-change-trump-administration-new-jersey-kansas-dallas-fort/1271937001/) is expanding the distribution of diseases that can sicken or even kill dogs, putting more pets at risk for diseases their owners have never had to deal with before.

Though diseases in dogs are not tracked as intensively as those in humans, veterinary epidemiologists and biologists said Rocky Mountain spotted fever, a bacterial disease that can cause fever, joint pain and vomiting, is moving into California and Texas. Heartworm disease, which can damage the cardiovascular system and clog the heart, is spreading beyond its traditional home in the South and Southeast. Lyme disease, which can cause joint swelling and lameness, affects dogs as far north as Canada.

“The veterinarians need to know what’s local. But what’s out there is changing so fast, how are you going to keep up?” said Janet Foley, a professor of epidemiology at the School of Veterinary Medicine of University of California, Davis.

Many of these diseases also affect humans. But dogs are especially at risk because they spend a lot of time outdoors and in vegetation.

Heartworms are transmitted in the larval stage by mosquitos and can infiltrate the cardiovascular system of dogs. *(Photo: Stephen Jones, DVM, American Heartworm Society)*

Warren Hess, assistant director of the American Veterinary Medical Association, said the spread of heartworm disease is increasing because of the changes in how frequently dogs are moved across the country.

“With the increased social pressure to restrict the sale of dogs in pet stores, this has resulted in a dramatic increase in the movement of dogs from pet shelters to fill the demand," he said.

Natural disasters also play a part. "The biggest spread in heartworm disease in the United States certainly followed the 2005 national distribution of dogs due to Hurricane Katrina,” said Hess, whose responsibilities include disaster preparedness.

He said that although climate change is happening, and will continue to happen, "it is important that we properly frame the discussions and use all available science as we further the discussion.”

Linking the expansion or shift of ticks that carry diseases, infection rates and dog populations is not an easy task. There are no mandated reporting requirements as there are for some human diseases. Data on tick and mosquito distribution is piecemeal in many areas. Tests for some of the diseases that appear to be on the move didn’t exist 10 years ago, so it’s difficult to judge their historic range.

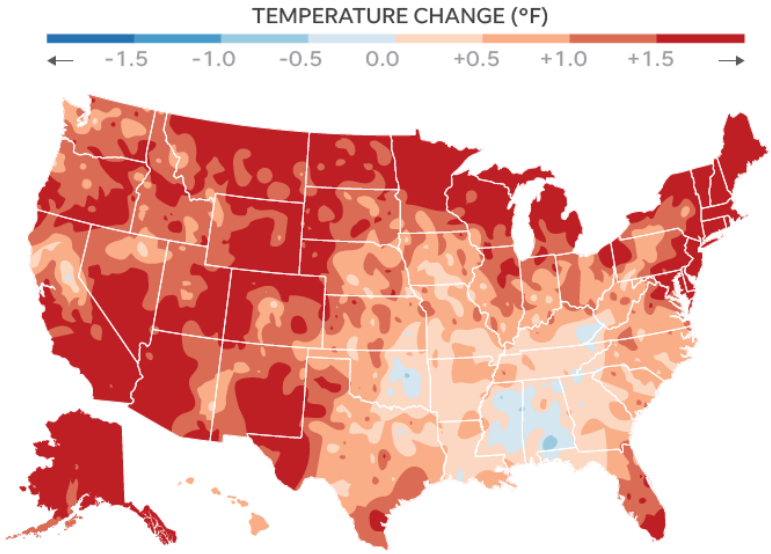
Even so, many scientists see patterns and links that point them toward climate change.

“There’s no smoking gun, and there will never be a smoking gun. We’re trying to connect two things that operate at very different scales both in time and space,” said Ram Raghavan, a professor of spatial epidemiology at the College of Veterinary Medicine at Kansas State University in Manhattan, Kansas.

He’s documented significant changes to the tick populations in the Midwest – in infestation intensity, the areas and when ticks are active. His team’s surveillance in western parts of Kansas and Oklahoma found Lone Star ticks that didn’t use to live there. These ticks can carry ehrlichiosis, a disease that in dogs can cause bruising of the gums, bleeding from the nose and lameness.

Observed U.S. temperature change

Temperature changes over the past 22 years (1991-2012) compared to the 1901-1960 average, and compared to the 1951-1980 average for Alaska and Hawaii.



SOURCE NOAA, National Climatic Data Center, North Carolina Institute for Climate Studies
USA TODAY

“There is this belief that these ticks do not exist in these areas, but increasingly over the last five years, we’re constantly finding them. So I’m pretty sure they’ve expanded” their habitat, he said. “Tick-borne diseases have really gone up. We go out into the field, and we see and find ticks more easily than we used to do in the past.”

To get to the bottom of it will require data that doesn’t exist. Raghavan has written several grant proposals to the U.S. National Institutes of Health for funding to do long-term studies, broad testing and analysis.

“Regardless of who caused climate change, climate has changed. Let’s take the emotion out of the debate and get some answers,” he said.

Temperatures in the contiguous USA are on average 1.5 degrees warmer than they were the century before, according to the U.S. National Oceanic and Atmospheric Administration. Rainfall and humidity levels have changed in some areas. All of these factors affect where insects that can carry disease thrive.

Veterinarians and biologists who study diseases spread by insects observed that it’s not just where but when the diseases strike that’s changing. The times of year when dogs are at risk are changing in some areas where summers are becoming too hot to support the insects or the diseases they carry. That doesn’t stop the spread.

“Diseases like Lyme disease that used to be transmitted in the peak summer months could now be peaking in the spring and fall because it’s too hot in the summer. So you get a longer transmission window,” said Andrew Dobson, a professor of ecology and evolutionary biology at Princeton University in New Jersey.

A dog tick (note white behind head), Lone Star tick (white dot on back) and a deer tick. *(Photo: American Lyme Disease Foundation)*

Rocky Mountain spotted fever is spreading

That means more dog owners have to pay attention to illnesses such as Rocky Mountain spotted fever, a disease carried by ticks that can sicken and even kill humans and their canine companions.

The bacteria initially invades the bloodstream, then settles into the cells that line blood vessels. Blood can seep out of the vessels and pool under the skin or even in the brain. The disease can be treated with antibiotics if caught in time.

At UC Davis, Foley studies its spread. Historically, most cases were spread by the American dog tick and occurred in the southern Atlantic states and the south-central states. North Carolina and Oklahoma accounted for the largest proportion.

Foley has tracked a new tick strain making its way north. This tropical strain of the brown dog tick has been found in many parts of the world and is known in the USA in Florida, Texas, Arizona and Southern California, where it may have been introduced from Brazil and Mexico.

It can carry Rocky Mountain spotted fever. Cases are appearing along the U.S.-Mexican border in areas that have never had to deal with the disease before. The new tick has gotten as far north as Los Angeles. Foley expects it to make its way up through California’s Central Valley as far north as Sacramento.

It’s much more aggressive than tick species Americans are used to.

“It bites more, the hotter it gets. So the hotter it is, the more infections there are,” Foley said.

Heartworm cases on the rise

Dog owners have to do more to keep their dogs protected against heartworms. The parasitic worms calledDirofilaria immitis are spread through the bite of a mosquito that carries them in a larval state.

It is an especially grisly disease. Once a dog is infected with the larva, it can grow into a foot-long parasitic worm that invades the dog's cardiovascular system, damages the arteries that carry blood from the heart to the lungs and blocks blood flow to the lungs by their presence and the clots they can cause.

To spread from one dog to another, the larvae have to develop to a specific infective stage inside the mosquito. The hotter it gets, the more quickly the larvae mature into a form that can transfer from the mosquitoes to the dogs. When it's 71 degrees out, that process can take 16 to 20 days. If it's 82 degrees, it takes 11 to 12 days, said Bruce Kornreich, a cardiologist and professor of veterinary medicine at the Cornell University College of Veterinary Medicine in New York.

Heartworm disease has historically been a problem in the South and Southeast. Environments farther north are now able to support the mosquitoes that transmit it and the larvae that cause it.

Infections are rising. From 2013 to 2016, there was a 21.7% increase in heartworm infections in the number of dogs per veterinary clinic testing positive for heartworm, said Christopher Rehm, a veterinarian who practices in Mobile, Alabama, and is president of the American Heartworm Society.

There are no solid figures on how many dogs heartworm disease kills each year, but untreated infections shorten a dog's lifespan.

"Based on my own anecdotal experience, I would conservatively estimate that heartworm-infected dogs lose one-third of their lifespan if not treated properly and in a timely manner," Rehm said.

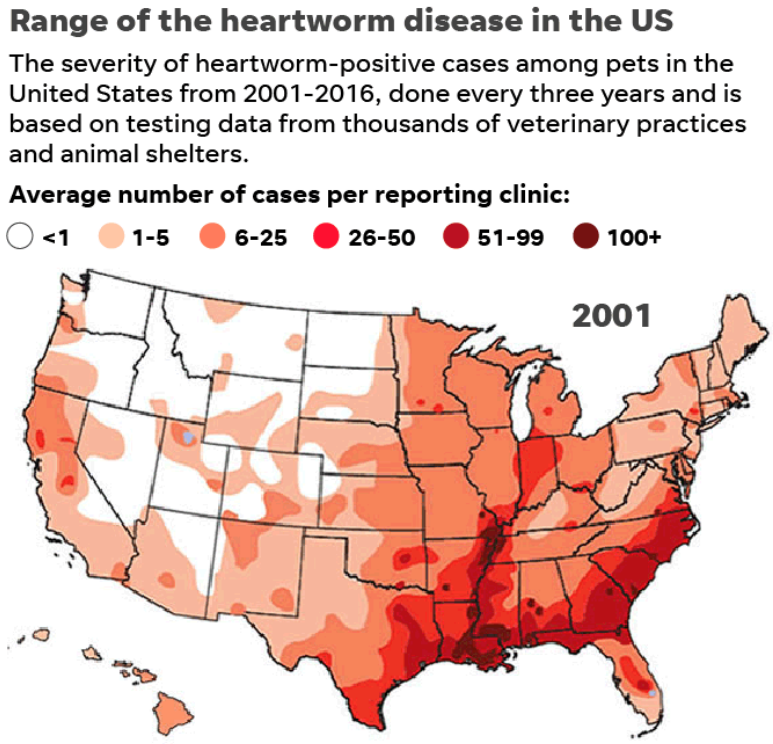
As the parasite moves into new areas, owners may not always be aware they need to be on the lookout for it. It's also a problem for more months of the year, Foley said.

"A hot winter means the mosquitoes don't die back, so they're raring to go as early as January and start spreading heartworm," she said.

Pet owners across a wider swath of the USA need to give their dogs preventive medicine to keep them from getting heartworms. People in areas where heartworm infections were a problem only in the summer now must treat their dogs for more months out of the year.

Since 2010, the American Heartworm Society and the federal Food and Drug Administration have recommended year-round preventive treatment, because the disease is more prevalent and it's so devastating to dogs who get it, Kornreich said.

Even if heartworm disease is caught and treated in time, it takes its toll on dogs. "Once they've ever had a heart infection, they're never the same," Rehm said.



SOURCE American Heartworm Society; USA TODAY

Lyme disease moving north

On top of being an enormous health hazard to humans, Lyme disease can harm dogs, causing lameness, fever and lethargy. It's carried primarily by the blacklegged tick, or deer tick, in the Northeast and the western blacklegged tick in the South.

Both are on the move.

"With Ixodes (blacklegged ticks) moving northward from the United States into Canada, it's a clear example of how things are changing," said Michael Yabsley, a professor in the College of Veterinary Medicine at the University of Georgia in Athens.

Even as Lyme disease moves northward, it's not decreasing in its historic area. In fact, infection rates in dogs are getting worse, said Yabsley, who studies wildlife diseases.

In 2018 in Columbia County, New York, 30% of dogs tested were positive for Lyme disease. In Worcester County, Massachusetts, it was 21%, and in Ulster County, New York, it was 20%, according to data collected by the Companion Animal Parasite Council.

'Fast' and 'ugly' changes

Some fear that the changing climate might bring diseases never before seen in canine companions. When ticks expand into new areas, they come into contact with new hosts, and those hosts may carry new diseases – which they could spread to the animals they bite.

This may have happened with two human diseases. The Heartland virus (https://www.cdc.gov/heartland-virus/symptoms-treatment/index.html)was discovered in 2009 and has infected about 20 people in the Midwest. It can cause fever, fatigue, nausea and diarrhea. Almost all patients have been hospitalized and some have died, according to the Centers for Disease Control and Prevention.

The Bourbon virus (https://www.cdc.gov/ticks/tickbornediseases/heartland-virus.html) was first identified in 2014 and has infected a limited number of people in the Midwest and the South, some of whom have died, according to the CDC. It can cause fever, rash, tiredness, body aches and vomiting.

The shifting climate is going to affect people and their pets in ways they may not be prepared for, Dobson said.

"There's no debate about whether it's happening or not," he said. "It's happening fast, and it's ugly."

Read or Share this story: https://www.usatoday.com/story/news/nation/2019/06/15/climate-change-could-hurt-your-dog-diseases-spread-into-new-areas/1414608001/

Your Town Ithaca: Cornell University's renowned veterinary program

by Lauren Kalil
Tuesday, August 6th 2019

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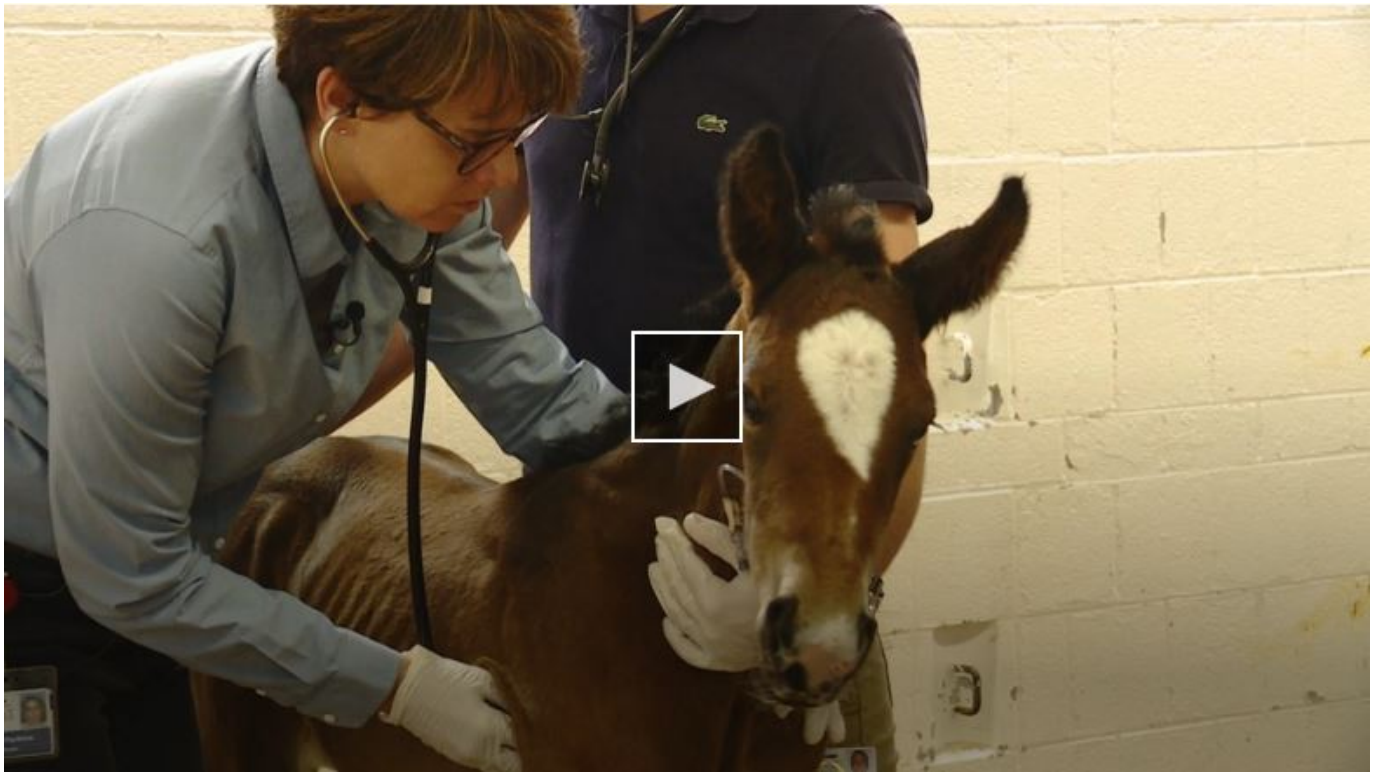

ITHACA N.Y. — Cornell University is home to a renowned veterinary science program. Lauren Kalil gives us a look at how they help dogs, cats and many unusual animals, too.

Click play on the video to see for yourself!

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77° 68° 73°

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