A message from the Chair, Dr. David H. Townson

It’s remarkable to me how quickly time seems to fly here at UVM. A year has already passed since my first arrival to the department, and I’m already back to teaching ASCI 215 (Reproductive Physiology) for the second time around. Meanwhile the department faculty and staff as a whole have been working hard this fall and winter to advance our mission in teaching, research, and service, and this is evident in the activities described in the current newsletter. It is also worth mentioning that within the past month we’ve had our first departmental retreat for the year to brainstorm ideas about improving and assessing our curriculum, articulating a 2-year academic plan for teaching, and developing thoughts about research opportunities for the future. The retreat was a one-day event held at the UVM Proctor Maple Research Center, which turned out to be a great venue for escaping the distractions of life on campus. A big “thank you” to Dr. Tim Perkins and his staff at the Center for hosting us.

As you will read, the activities of our faculty, staff, and students described in the next several pages extend clear back to last summer, and are as diverse as scientific research presentations by our faculty and graduate students in Salt Lake City, Utah, and Gold Coast, Australia, to ‘dancing with wolves’ and understanding dog behavior by our ASCI undergraduate students. Additionally, as we welcome new undergraduate and graduate students into our program and laboratories, we celebrate the many achievements and accolades of recent graduates who have completed their degree programs and alums who have advanced in their careers. The Department of Animal and Veterinary Sciences continues to be a presence in the dairy and horse communities of the state through sponsorship and voluntary support of Vermont Breakfast on the Farm events, Open Farm Sunday by CREAM students at the Paul R. Miller Research and Education Center, and Vermont Day by UVM staff and alums at the UVM Morgan Horse Farm. Hosting of horse shows, the Equine Barn Open House, the annual Halloween Barn, and participation in the 2016 Northeast Regional Dairy Challenge and the 2017 Alpaca Boot Camp are additional activities for ASCI students to support and learn about animals and animal agriculture. I’m sure you can appreciate the variety of experiences students gain from these opportunities.

In closing, even though we remain in the throes of winter (with colder days forecast ahead), I hope you will find this newsletter to be a warm welcome and an enjoyable read about the recent happenings in our program. We appreciate your continued support, and we hope you will take the opportunity to visit soon. Additionally, we are excited about the future of the program and we look forward to ways in which we can include you in advancing our mission.

All the best, Dave
Zhao Lab News

The Zhao Lab welcomes a new graduate student, **Alexander J. Spitzer (AJ)**. AJ graduated from UVM this past spring with double majors in Animal and Veterinary Sciences (ASCI) and Microbiology and Molecular Genetics (MMG) and has excellent biology and chemistry background. AJ joined the Zhao lab for a Master’s degree, and his research project is to study the metabolic changes in the mammary gland during mastitis infection. We are very glad to have AJ as a lab member and wish him the best in his graduate program.

Warm welcome also goes to the visiting scholar **Dr. Qing Tian**. Dr. Tian is an associate professor in the Jiangsu Food & Pharmaceutical Science College of China. She is visiting the Zhao lab for one year and is involved in the research project to study the effects of mastitis infection and oxidative stress on milk synthesis in dairy cows. We are thrilled to have Dr. Tian in our lab. We believe she will make great contributions to our research program. We wish her a happy and fruitful time in the US.

We are also very excited to have two undergraduate researchers **Jennifer Dickerson** and **Leslie Rivers**. Both Jennifer (Class of ’17) and Leslie (Class of ’19) are ASCI majors and joined the Zhao lab to study the associations of the polymorphism (small differences in DNA) in cow glucose transporter genes with cows’ performance. The two young scientists are excited about their research.

In addition to overseeing and participating in research, Dr. Zhao taught ASCI 216 – Endocrinology in the fall semester and is teaching ASCI 141—Anatomy and Physiology of Domestic Animals this semester. He enjoyed teaching a group of excellent students and looks forward to teaching another enthusiastic and bright group of students this semester.
During the fall semester, Dr. John Barlow taught ASCI 006 Companion Animal Care and Management, while Dr. Pat Erickson was on sabbatical leave. This course is an introductory survey course taken by Animal and Veterinary Science majors who are interested in the companion animal track, and by Animal and Veterinary Science minors as one of three options for a foundation course. While much of the material in this course was outside his area of scholarship, John brought his few years of practical experience, professional ties to companion animal industries, and family ties to the world of pure-bred dog breeding and AKC showing.

Our long-time collaborator, Dr. Bill Golde, has moved to Moredun Research Institute, in Scotland. Previously, Dr. Golde was a USDA-ARS Research Scientist at the Plum Island Animal Disease Center for 17 years. At Moredun, his work will continue in the area of livestock immunology and vaccine development, and we expect our collaborations will continue.

Dr. Tatjana Sitt, post-doctoral scientist, presented her recent research, “Monoclonal Antibodies for the Analysis for Bovine CD4+ T Helper Cell Subsets” at the International Veterinary Immunology Symposium at the Gold Coast in Australia. This work has been a collaborative effort between Dr. Bill Golde and other scientists at the Plum Island Animal Disease Center in New York, Green Mountain Antibody in Winooski, Vermont, and our laboratory. The aim is to develop new bovine specific antibodies for use in research, as such quality research reagents are difficult to come by in the veterinary immunology field. While in Australia, Tatjana took some time to snorkel the Great Barrier Reef, visit friends and meet a few representatives of Australia’s wildlife.

Our graduate students are making great progress in their thesis work. Robert Mugabi is working on his second and third research manuscripts to report data from his field trial related to epidemiology of Staphylococcus mastitis. Korin Eckstrom received a USDA-NE-SARE grant for her project “Table to Farm: Using Shotgun Metagenomics to quantify Antibiotic Resistance on farms feeding food scraps to laying hens” and she has begun data collection.

Three senior undergraduates presented their Distinguished Undergraduate research and Honors College Thesis defense for early graduation in December. Jessica Bachmann presented her work on “Antibacterial activity of two Staphylococci species against one another.” Muriel Enders presented her work on “Inhibitory activity of essential plant oils on biofilm formation in mastitis-causing bacteria.” Helen Keen presented her work on “Association study of coagulase-negative Staphylococcus species between flies, teat skin and mastitis cases on a Vermont dairy farm.”

Tatjana Sitt meets an echidna while in Australia for a conference.
The McKay lab has been busy presenting data at meetings and abstracts at conferences. Bonnie Cantrell and Dr. Stephanie McKay attended the 35th International Society for Animal Genetics (ISAG) in Salt Lake City, Utah. While at ISAG, Dr. McKay was elected Chair of the Animal Epigenetics workshop and looks forward to seeing all of her colleagues in Dublin, Ireland next summer.

Two posters from the McKay lab were presented at ISAG, Fernando Betancourt’s poster was entitled “Examining conserved DNA Methylation in the bovine 5’ AMPK gene family” (https://dl.sciencesocieties.org/publications/jas/abstracts/94/supplement4/44a) and Bonnie Cantrell’s poster was entitled “Novel analysis of global DNA Methylation in the limbic system of the bovine brain” (https://dl.sciencesocieties.org/publications/jas/abstracts/94/supplement4/43).

Upon returning from Utah, Bonnie then traveled to the University of Connecticut where she was graciously hosted by Dr. Steven Zinn, Professor and Head of the Department of Animal Science. Her work at UCONN involved perfusing bovine brains extracted from cattle heads. This is the first step in a collaborative project to generate an atlas of the Bos taurus (bovine) brain. From there she traveled to Neuroscience Associates in Knoxville, Tennessee where slicing, mounting and staining of a brain has been performed. This work would not be possible without the gracious in-kind gift totaling more than $100,000 provided by Dr. Bob Switzer, President and CSO of NeuroScience Associates (https://www.neuroscienceassociates.com/). Bonnie’s next stop was San Diego, California where she attended the Society for Neuroscience annual meeting.

Undergraduate student, Jamie Kelley, worked in the McKay Lab extracting DNA from moose to be used for a future study on population structure and diversity of the Vermont moose population.

We welcomed back Darla Quijada, who spent last summer at an internship with the Institute of Infectious Animal Disease (IIAD) where she was working with the National Agriculture Biosecurity Center (NABC) at Kansas State University. She is currently working on an extension of the AMPK project and examining evolutionary patterns of DNA methylation across species. We were very excited to have Darla present this work at the Plant and Animal Genome meeting in San Diego, California in January, 2017.

Finally, the McKay lab is looking for a Master’s student and information about this position can be found at: https://asci.uvm.edu/employment/bovine_epigenomics.pdf.
It was a busy, productive, and fun 2016 for the Kraft lab.

**Laura Cersosimo** presented two posters and gave an oral presentation at the Joint Annual Meeting of the American Dairy Science Association® (ADSA) and the American Animal Science Association (AASA) in Salt Lake City, Utah. Her posters can be viewed in her final report of the Graduate Northeast Sustainable Agriculture and Research Education (SARE) Grant at [http://mysare.sare.org/sare_project/gne15-097/?page=final](http://mysare.sare.org/sare_project/gne15-097/?page=final).

Laura defended her dissertation entitled, “Rumen Microbial Ecology and Rumen-Derived Fatty Acids: Determinants of and Relationship to Dairy Cow Performance,” on November 10, 2016. She started a postdoctoral fellowship in December at the US Dairy Forage Research Center in Madison, Wisconsin. Congratulations to Dr. Cersosimo!

**Melissa Bainbridge** was busy presenting at conferences and writing. She gave two poster presentations and an oral presentation at the Joint Annual Meeting of the ADSA and the AASA in Salt Lake City, Utah. Melissa also was selected to participate in the 2016 Graduate Student Division Three-minute Thesis Challenge, where she placed second! The presentation can be viewed at [http://www.adsa.org/Membership/Students/GraduateStudentDivision/Resources/GSDThreeMinuteThesisChallenge.aspx](http://www.adsa.org/Membership/Students/GraduateStudentDivision/Resources/GSDThreeMinuteThesisChallenge.aspx).

This past fall, Melissa had two articles published, one in Food Chemistry entitled "Milk from cows grazing on cool-season pasture provides an enhanced profile of bioactive fatty acids compared to those grazed on a monoculture of pearl millet." The second was published in PLOS ONE and is entitled, "Lipid encapsulation provides insufficient total-tract digestibility to achieve an optimal transfer efficiency of fatty acids to milk fat."

Melissa defended her dissertation entitled, “Enhancing the content of bioactive fatty acids in bovine milk for human health promotion and disease prevention.”

**Allison Unger** has been spending most of her time at the Colchester Research Facility. She has harvested the first cohort from her mouse study with the help of the Kraft lab and research team at the Colchester Research facility. She is looking forward to beginning her lab work and learning all of the new technical techniques that come along with this next step of her project.

Having completed the analysis of all remaining samples from the milk fat study, postdoctoral fellow **Helen Walsh**, reviewed the data for both the study sponsor and for journal submission. Helen completed her post-doctoral work in December and returned to Ireland, her home country. She indicated she would miss working with the Kraft lab team.

On a recreational and fun note, this past fall the Kraft lab retreated to do some creative thinking and artistic work at a “Paint and Sip” event in downtown Burlington painting ‘the crazy goat’. The work of art was displayed on the second floor of Terrill and members of the department had fun trying to guess who did which painting. Fun times!
Chittenden County Farm Bureau Members Tour CREAM Barn

Chittenden County Farm Bureau members are grateful to CREAMers for providing a tour of the new barn and parlor built for the teaching herd. Dean Thomas Vogelmann joined the group and provided updates on the College of Agriculture and Life Sciences as part of the meeting program. During the annual business meeting Julie Smith was re-elected President of the County Farm Bureau and served as a delegate to the Vermont Farm Bureau Annual Meeting in early November.

Smith Outreach in the News


Dr. Smith also co-presented with Ted Ferris about Breakfast on the Farm at the Dairy Practices Council annual meeting in November. They also presented a coordinated pair of abstracts at the Joint Annual Meetings in Salt Lake City this past July.

Meet me in Mankato

Where’s that? Mankato is a college town (home of Mankato State University) in southern Minnesota and home to the Minnesota Pork Board and Minnesota Pork Producers Association and close to other swine industry stakeholders invited to participate in a focus group as part of the USDA project led by Julie Smith.

The project dubbed the Animal Disease Biosecurity Coordinated Agricultural Project (ADBCAP) has focused initial efforts on understanding the way Porcine Epidemic Diarrhea virus (PEDv) spread through the US swine industry and the role of decision-making regarding protective actions. The latest project newsletter is available here. [http://blog.uvm.edu/jmsmith/smith-leads-usda-nifa-cap-protecting-animal-health/project-newsletters/](http://blog.uvm.edu/jmsmith/smith-leads-usda-nifa-cap-protecting-animal-health/project-newsletters/) At the recent meeting in Minnesota, team members strengthened collaborative connections as they prepare to tackle the next phase of the project.
Vermont Breakfast on the Farm Events Expanded their Reach

Over 900 people visited Nea Tocht Dairy Farm in Ferrisburgh in June and over 1000 visited Green Mountain Dairy Farm in August for breakfast and a tour of the farm, learning from volunteers stationed along the way. Check out the video from 2016 on the vermontbreakfastonthefarm.com webpage.

VT Secretary of Agriculture Church Ross talks with other visitors at the 2016 Vermont Breakfast on the Farm event at Nea Tocht in Ferrisburgh.

ASCI FARMS 2 + 2 alum Amy Maxham (Class of ’09) explains how milk is tested to ensure its safety.

ASCI and Food Systems alum Melissa (Woolpert) Carabeau (B.S. ’13, M.S. ’16) has helped lead the event since its inception and chairs the steering committee planning the 2017 events.

The Vermont Breakfast on the Farm is a family-friendly event.

Photos courtesy of Jane Kennedy O’Neil

The girls enjoy a “spa moment” from the spinning brush at Green Mountain Dairy in Sheldon, VT during Breakfast on the Farm.
Open Farm Sunday at the CREAM Barn

This past fall, UVM’s Cooperative for Real Education in Agricultural Management (CREAM) program hosted the Cabot supported Open Farm Sunday, which saw the gathering of students and families at the Miller Research Complex on 500 Spear Street over games, grilled cheese sandwiches, lots of free samples of Cabot cheese, and of course, cows. Cabot’s Open Farm Sunday is held every two years and encourages farmers to open up their doors as a way of showcasing the dairy barns within the Co-op and educating the public on where their cheese comes from. The Cabot Co-op offers a unique partnership with farmers and provides a strong relationship between producer and supplier, which extends to the consumer to connect all components of the farm-to-plate process. CREAM is happy to be a part of this Co-op and the students wear their Cabot plaid proudly.

The day started at 11:00 a.m. when the CREAM barn opened its doors and was ready to welcome the public to the facilities. Many of the CREAMers were nervous about how many people would visit the barn, but the cows seemed to be at ease, as if they knew they would pull in the crowds with their mere presence. Sure enough, undeterred by the windy weather, numerous families and friends came to meet their spotted neighbors, with an estimated amount of 300 people visiting the barn in total. In attendance was CREAM’s very own veterinarian, Dr. Allison Maslack of Northwest Veterinary Associates, who fielded questions and even manned the grill for a bit and Dr. David Townson, the current department chair of UVM’s Animal and Veterinary Sciences Department, who also came to visit the barn and meet with the public.

Visitors were given a variety of activities to choose from, including a scavenger hunt around the barn, a list to suggest names for upcoming calves (among which included “Mooey McMoo Face”), and a place to sit and enjoy a grilled cheese sandwich made by a CREAMer. Other activities the CREAMers organized to educate kids and adults alike on the animals that make the products they love included: a matching game of categorizing cows by their families, a station to test your cow anatomy by labeling the parts of the cow, and cow pie bingo. Stakes were raised with cow pie bingo in which participants paid for squares in hopes that one of the two heifers in a pen would give them a cow pie in their square. Winners took home a limited edition CREAM t-shirt with the new, redesigned logo. It was funny to see the audience get so involved and cheer the heifers on, awaiting for them to do what so many of the CREAMers usually dread. Activities came to a close around 2:00 p.m. when the last of the grilled cheese sandwiches had been eaten and the winners of the cow pie bingo had claimed their prizes. Though the CREAMers were sad to say goodbye to their extended neighbors, they hope, as a permanently open barn, they will see the same faces come back to revisit their newly acquainted four-legged friends.

The 2016 CREAMers had been planning Open Farm Sunday since the beginning of the semester and were happy to see such a good turn out. “It was an amazing experience to be able to open our farm to the public for a day and introduce them to the cows we put our hearts and souls into. It was an incredible opportunity to celebrate everything a farmer is and it made me proud to be a part of CREAM” said CREAMer, Mackenzie Davidson, a sophomore and Animal Science major. Maureen Whitney, another Animal Science major and sophomore in the current CREAM group and a former marketing intern at Cabot also reflected on the day: “As a CREAM student, I really enjoy educating others on the dairy industry and I think it’s so important to connect people with the process that gives them their food...plus, free Cabot cheese is always nice.” CREAMers take their jobs as educators very seriously and have led multiple educational tours for young students, including kids from

“It was an amazing experience to be able to open our farm to the public for a day and introduce them to the cows we put our hearts and souls into.”

ASCI Major
Mackenzie Davidson
Burlington’s Edmunds Elementary School and the Lincoln Community School. Personally, it’s exciting and a little bit crazy to think about the impact you can have on a kid by helping to develop an interest in dairy farming. With the decline of milk prices and farming in the dairy industry overall, it so important to educate generations—current and future—on the work that goes into running a dairy barn and the important role farms play in our food system. 

“It was an incredible opportunity to celebrate everything a farmer is, and it made me proud to be a part of CREAM.”
CREAM student
Mackenzie Davidson
about Open Farm Sunday

“As a CREAM student, I really enjoy educating others on the dairy industry and I think it’s so important to connect people with the process that gives them their food.”
Maureen Whitney
CREAM student

CREAMers wait for the calves to produce a cow pie for cow pie bingo.

Photos courtesy of Jane Kennedy O’Neil

CREAMers answer questions posed by the public about the CREAM cows’ milking schedule, diet, and living environment
CREAM celebrates year-end dinner

On November 17th at the Main Street Landing, the CREAM students held their end of the semester dinner where they presented research projects on aspects of the barn that can be improved—whether it be, catering to older cows with larger stalls, marketing dairy heifers, or fine-tuning the breeding protocol. The event was an opportunity for CREAM students to show-off the knowledge they have gained throughout the program and share how much the program means to them.

I had never imagined myself being a dairy farmer until I came to UVM and was introduced to the CREAM program.

Katherine Mosley
2016 CREAMer

https://www.youtube.com/watch?v=NDHNIsLjVzY
My internship at Wolf Park

During my time at Wolf Park, located in Battleground, Indiana, I did a plethora of things that ranged from mowing enclosures to butchering road kill white tailed deer. My responsibilities usually included giving a tour, feeding the animals (there are a total of nine wolves, seven bison, three gray foxes, two red foxes, and two coyotes), cleaning the enclosures, assisting the staff with training of the foxes and wolves, interacting with the wolves, giving medications, and making sure all the animals were safe, happy, and healthy.

As an intern I learned life lessons, practical skills, and some odd things specific to captive wildlife management (like butchering a deer). A typical day for me would start out at 9 a.m. and would usually go to 6 p.m. or later, depending on the day and the tasks assigned to me for the day. One of the things I enjoyed the most were the weekly education interludes for the interns. Different topics were discussed each week; my personal favorite was when we learned about different types of training that the staff members utilize with the wolves. The interns were then allowed to apply one of the training techniques to a staff dog by teaching a behavior that the interns decided upon (we decided to teach her to roll on her back and stretch her paws up when cued).

Tips that I have for future interns include being ready to work long days with little rest time. I actually didn’t mind this because you are always doing something interesting, like meeting wolves or giving a tour. There was some element of cleaning to this internship; you will do some form of it every day that you are working. I also suggest during the times when you are done early with your assigned tasks or are not assigned a task, you find something to do. There is always something to do and cleaning to be done.

This was truly an amazing experience and I urge anyone with a desire to work in captive wildlife management to apply for this internship. Be ready to work, but there are great rewards that come along with hard work. You most likely will be allowed to meet the wolves, provided you are mature enough and become tour and meatball cleared (meatballs are how we give medications to the animals).

The picture below on the left is Kanti giving me kisses on our first meeting. The picture below on the right is Wolfgang and Wotan walking by to get scratches.

Students, if you are interested in an internship, you are encouraged to make an appointment with Fran Kinghorn, ASCI Internship Coordinator, Room 107C Terrill Building or email her at Fran.Kinghorn@uvm.edu.
In an annual tradition that harkens back to the era of the US Government’s stewardship of the Weybridge facility, the farm hosts an open house every second Wednesday in August. This year “Vermont Day” featured a special demonstration by local Civil War cavalry re-enactors, (right, upper), to illustrate in real time the drills and movements of a mounted cavalry company. Morgan horses played a crucial role in the Civil War, with many famous Generals and Colonels choosing fearless Morgan mounts, such as General Phillip Sheridan and Colonel Stonewall Jackson.

As a result of careful selection and management, the UVM Morgan breeding program is renowned for its conformity in type and consistently producing excellent pleasure use animals. The sire and daughter depicted left demonstrates the uniformity in conformation and performance. Regional shows are attended as a means to measure merit, promote and advertise. UVM Morgans continued to win honors at local and regional competitions entered this season. From Left to right: (1) UVM Tennyson, pictured with Steve Davis at the 1991 New England Morgan Horse Show is the sire of 2012 mare (2) UVM Unique, shown by Equine Specialist Kimberly Demars at the 2016 New York Morgan Horse Show in Syracuse NY.

Also on hand this VT Day was a staffer from Mt. Mansfield Media, who gathered footage of the demonstrations throughout the day, (left, lower). In addition to our agricultural mission, the UVM MHF is a public service arm of the University. Currently the team is working on updating the 10 min. documentary that is played for our guests and sold in our gift shop. The UVM MHF is actively seeking support for this project, send an email to uvmorgan@uvm.edu or call 802-388-2011 to learn how you can help.

As another busy tourism season wraps up, the Farm continues to welcome guests from near and abroad, from the local Middlebury “regulars” to international guests from Canada, England, Scotland, Germany, France, and Austria, to name a few. Bike groups like the one pictured left are a summer mainstay. Above Right, the newest UVM MHF Apprentice Intern, Michelle Kirsh, UVM ASCI ‘16, handles the 2016 raffle colt, UVM Yankee whose drawing was held on October 31st.
Part of what instructor Jamie Shaw teaches in Understanding and Speaking Dog is learning to interpret and translate dog communication; their nonverbal “speech,” into spoken English. This is exactly as one would use American Sign Language (also a nonverbal language) and then have it translated into spoken English for people who communicate verbally and know the English language. While the picture to the right looks simply like a happy puppy being loved by a happy person, there is so much more that the dog is saying—nonverbally—but very clear Dog Speak. The most recognizable communications in this picture of student Dan Rogers and the dog (Falcon) are from Falcon’s ears, front left leg and tail.

- Falcon’s ears are showing deference (humble submission and respect)
- Falcon’s front left is one of the most common appeasement statements a dog can make (his willingness to calmly give into demands)
- Falcon’s tail shows neutrality (a state of being impartial)

Ninety-nine percent of humans interpret (incorrectly) what a dog is saying anthropomorphically as opposed to using science to truly know what is correct and what is opinion or incorrect.

The most difficult challenge for students in the first several weeks of Understanding and Speaking Dog (and the rest of the world who work with dogs) is to let go of what they have heard, have read, have been told, or always believed about dogs, and instead, learn the truth about dogs. In other words, to learn what is science and what is not science. It’s like looking at a tapeworm and insisting it’s a round worm. As the course goes on the students learn that what they always thought to be true is incorrect and there is science to prove this; not conjecture. This is also the case with 99.9% of humans—ASCI students or not.

Dan Rogers interacts with Falcon, a 3-month old Shiloh Shepherd, in Jamie Shaw’s Understanding and Speaking Dog class. Interesting fact: Shiloh Shepherds are lot related to German Shepherds.

2016 NE Dairy Challenge

SUNY Cobleskill hosted the 14th annual Northeast Regional Dairy Challenge in Glens Falls, New York. One hundred twenty students, representing 13 colleges and universities throughout the northeast and Canada attended the event. The regional Dairy Challenge places students on mixed-university teams of four or five individuals to analyze all aspects of a working dairy. Teams assessed the dairy’s facilities, nutrition, financials, reproduction, animal health and much more. Together they collaborated on a 20-minute team presentation that detailed their observations and suggestions to a panel of judges and participating farm families. University of Vermont senior, Courtney Banach, was on Team 24 which came in first place evaluating Farm 3.

Front Row (L to R): Hannah Dye, Ohio State-ATI; Krystle Burger, Morrisville State College; Courtney Banach, University of Vermont; Back Row (L to R): Michael Shariff, SUNY Cobleskill; and Jacob Morgan, Cornell University
Horse Barn Activities

There was a lot of activity this past fall at the Ellen A. Hardacre Equine Center on Spear Street in South Burlington. Demonstrations were held during Equine Barn Open House, horse shows, and large groups of children and their families enjoyed the highly anticipated annual Halloween Barn.

“Kermit the Frog” enjoyed the obstacle course equine students had assembled in the arena.

Equus students flutter around to help the event run smoothly.
Thank you to all the students who make these events happen at the Equine Center; Horse Barn Coop students, Dressage Team, Equestrian Team, and Equus students.
Students travel to Ecuador

Twelve students had the opportunity during winter break to trek the Andes Highlands in the company of alpacas. The travel course, “Bootcamp in Alpaca Husbandry,” taught by Dr. Stuart White, allowed students to earn four Animal and Veterinary Sciences’ credits as they tended to a herd of 600 alpacas and traversed the breathtaking Ecuadorian landscape. Students studied conservation in Ecuador and how to maintain the health of the alpaca herd, explored diverse landscapes as they moved the alpacas to new pastures, and experienced the complex beauty of Ecuador through the lens of conservation, development, ranching and indigenous cultures.
A group of students near Condor Cocha Lake at the foot of Chimborazo, with our Puruhau (Quechua-speaking) guide. The entire class reached an amazing 16,400’ elevation on Chimborazo mountain.

In the forest, returning from the blue tent to the alpaca pastures

Visiting Miguel Rodriguez’s cheese factory in Salinas, near Chimborazo Mountain.
Welcome to Animal & Veterinary Sciences

Christina “Chrissy” Rohan is originally from Charlotte, VT, graduating from UVM with a B.S. and M.E. in Special Education. Chrissy has ridden and worked with horses since she was a child growing up on her parents’ Fox Horn Farm. Chrissy began teaching riding while in high school and has continued working with riders and horses her whole life. Her specialty is within the Hunter / Jumper discipline. She competed as a junior rider in the Big Eq. She continued showing as a professional on the local hunter / jumper circuit as well as some “A” shows. For the past 10 years, she has been the head trainer at Merry Mount Farm, coaching students and training horses who have won numerous year end awards. She also has served on two non-profit boards; Vermont Hunter Jumper Association (current Vice President) and Vermont Horse Assisted Therapy. In addition to training hunter / jumper riders, she has worked as a therapeutic riding instructor. Outside the department, Chrissy continues to attend horse shows with her students and daughter. She resides in Montpelier with three teenage children and their dog, Gunnar.

Wyatt Smith is originally from Hamburg, Minnesota. He graduated from the University of Minnesota in 2016 with a B.S. in Animal Science. He is currently working towards his Master’s Degree under the direction of Dr. Rick Grant at the William H. Miner Institute located in Chazy, New York. Through this program, he will be taking classes at UVM and participating in research projects at the Miner Institute. His research will focus on indigestible portions of neutral detergent fiber in dairy cattle diets.

A.J. Spitzer is from Cleveland, Ohio and has always loved all things living. In his early years, he expressed this passion by personally rearing over a hundred different species of animals. He meandered his way north to the University of Vermont and graduated in May 2016 with a B.S. in Animal Science and Microbiology. He began studying with Dr. Zhao near the end of his undergraduate career and continues to work with him as he pursues his M.S. degree. In the lab, he investigates the role of severe hypoxia in mastitis through mammary tissue cultures and other methods. His love of herpetology is second to none and his hobbies include cooking, playing or watching sports, hanging out with friends and pets, and boasting a colorful wardrobe.

Ph.D. Student Opportunity—Animal Physiology

The Department of Animal and Veterinary Sciences at UVM is looking for two Ph.D. students in Animal Physiology, starting either in the fall of 2017 or the spring of 2018. The students will engage in research in antioxidation, metabolic physiology and mastitis in the mammary gland of dairy cows. The candidates should have excellent academic records with a background in animal science, nutrition, physiology, molecular/cellular biology, endocrinology, or related field. A Master’s degree is preferred, but not required. He/she must be highly self-motivated and have a good work ethic. Working experience with large animals or lab animals is highly desirable. More info: https://asci.uvm.edu/employment/graduate_position_170217.pdf


ASCI alums appreciate UVM

Taylor Goucher (Class of ‘15) graduated from ASCI and is now a first-year student at the University of Pennsylvania Veterinary School. She recently shared her appreciation of Fran Kinghorn (ASCI Internship and Lab Coordinator) and Jenny Wilkinson (Senior Lecturer) for helping her and other UVM graduates get to vet school:

“I can’t tell you how nice it was to make the transition from undergraduate to vet school with familiar faces around. We have nine UVM Animal Science alumni at Penn right now within three years! (I think that’s saying something about ASCI.) Thank you Fran Kinghorn and Jenny Wilkinson for getting us here!”

“Make the most of your time at UVM and you will succeed.”

Dr. Karen Farren graduated from UVM and went to veterinary school at Tufts University School of Veterinary Medicine. She has been in practice for nineteen years and has been part of the Scituate Animal Hospital team located in North Scituate, Rhode Island since 2005. She shares some words of wisdom for ASCI students considering veterinary school.

“Study hard. Work hard. And don’t forget to rest! Take advantage of everything UVM has to offer. Make the most out of your time at UVM and you will succeed. Being a veterinarian is the best job in the world! Thank you UVM Animal and Veterinary Sciences for getting me there.”

Recent Peer-reviewed Publications
Support UVM Animal & Veterinary Sciences

The Department of Animal & Veterinary Sciences is home to some of the best and brightest students, faculty conducting high quality research, and outstanding outreach activities at the University of Vermont. Your donation will help the Department continue to deliver first-rate service in these areas. Annual gifts from alumni and friends at all levels do make a difference. Please consider supporting the Department with a donation of any size.

Gifts may be made online at the UVM Foundation’s secure website:

www.uvmfoundation.org

Click on the Give Now button and specify Animal & Veterinary Sciences in the “Other” category.

Calendar of Events—2017

March
Mar. 7, 2017. Town Meeting Day Recess
Mar. 13-17, 2017. Spring Recess

April
Apr. 3, 2017. Last Day to Withdraw
Apr. 7-9, 2017. Eric Horgan Clinic at UVM Horse Barn
Apr. 21, 2017. UVM Honors Day
Apr. 22, 2017. Riding Clinic and Information Day at UVM Horse Barn

May
May 5, 2017. Last Day of Classes
May 5, 2017. ASCI Honors Day
May 6, 10, 2017. Reading Day
May 8, 9, 11, 12, 2017. Exam Days
May 13, 2017. CALS 24th Annual Alumni & Friends Dinner, Grand Maple Ballroom, UVM David Center

May 21, 2017. Commencement
May 22, 2017. First Day of Classes
May 29, 2017. Memorial Day Holiday

June
Jun. 3, 10, 16, 24, 2017. Foal Days, Morgan Horse Farm, Weybridge, VT
Jun. 11, 2017. Walk for the Animals & 5K Doggie Fun Run! Battery Park, Burlington, VT.

July
Jul. 4, 2017. Fourth of July Holiday
Jul. 8-12, 2017. American Society of Animal Science (ASAS) and the Canadian Society of Animal Science (CSAS) Annual Meeting; Baltimore, MD