

Animal Science News & Announcements



Freshmen Isabel Knowles, Anna Kernan, and Rainah Garvins chat with fellow Animal Science classmates during the 2010 ANSC Freshmen Welcome.

FALL 2010

Department of Animal Science News:

The Department of Animal Science is pleased to recognize the following award recipients:



Dr. Sheila Andrew, ANSC Associate Professor, was awarded the prestigious 2010 West Agro, Inc. Award from the American Dairy Science Association. This award recognizes outstanding research of milk quality as affected by control of mastitis, management of milking, and practices in production of milk. To qualify for this award Dr. Andrew had to have an exceptional scientific or technical contribution in research of one or more areas of mastitis within the past five years.



Lisa Dauten, ANSC Sophomore, was awarded the 2010 Eastern States Exposition Connecticut Trustee Undergraduate Student Scholarship. Each year, the Connecticut Trustees of the Eastern States Exposition awards one or more scholarships to CANR undergraduate students who have indicated that they will continue making contributions to agriculture as well as to the welfare of Connecticut citizens.

SPRING 2010 REGISTRATION

Spring 2010 registration begins October 25th. Students should schedule an advising appointment with their advisor before registering for spring courses.

DECEMBER GRADUATES

If you plan to graduate this December, please **contact your advisor now** to review and submit your plan of study. To download a copy of "Steps to a Successful Graduation" prepared by the Degree Auditor, Office of the Registrar visit <http://www.registrar.uconn.edu/graduati.html>.

*** NEW FEATURE ***

At the end of this newsletter we have added a section titled "Current ANSC Undergraduates In Research". Each semester we will select a few undergraduate students to feature their research projects.

EQUINE INTERNSHIP- KENTUCKY

The Kentucky Equine Management Internship (KEMI) Program located in Lexington, KY is a non-profit organization that provides paid internship opportunities for college students or recent college graduates on Central Kentucky Thoroughbred horse farms. Application deadline for spring sessions is October 31st. More information about the KEMI program can be found on their website at www.kemi.org. ANSC students have participated in the past and have said it was very informative and a great opportunity. Contact Dr. Darre at 486-1008 for more information.

CAREER NIGHT – COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

Come learn about your career options in the fields of agriculture, health and the environment. Over 75 alumni and career representatives will be available. Experts will be on hand to consult in resume writing, interviewing, study abroad programs and graduate school. Wednesday, November 3rd 5:30-7:30pm in the Wilbur Cross North and South Reading Rooms. For more information visit www.MyAgNR.uconn.edu.



LITTLE INTERNATIONAL SHOW

Students and families are invited to the ANSC International Livestock Show (Little "I"), which will be held on Saturday, October 30th at the Horsebarn Hill Arena. The show will start at 9 a.m. and continue until 3 p.m. Stop by and show your support for the Animal Science Block & Bridle Club - oldest running club on campus. It's free and open to the public. Animal Science students will compete in showing dairy and beef cows, sheep, horses, pigs, and poultry. The schedule of events will be available on the Animal Science web page a week before the show. For further information and updates please visit the UConn Block and Bridle website: <http://www.ucblockandbridle.webs.com>.



Rachel Leone, ANSC Masters Student, listening to what Vegas has to say about Little I.

ATTENTION STUDENT CLUBS

Student organizations (ANSC clubs & teams) are required to re-register with the Department of Campus Activities, Center for Student Involvement for the 2010-2011 academic year. Clubs that do not re-register will not have an account in the Student Activities Business Office and cannot make reservations for space. The online re-registration form is located at www.studentactivities.uconn.edu

Any questions about organization re-registration can be directed to the Center for Student Involvement at 486-6588.

WIRELESS AVAILABILITY

Wireless service is now available for Animal Science students in the George White Bldg. Library room 110 and at the UConn Dairy Bar.

INTERNSHIPS AVAILABLE IN CT

The Lutz Children's Museum located in Manchester, CT (~ 20 minutes from campus) has internships available in the following areas: Humanities/Arts Programs, Animal Programs, Science Programs, Early Childhood Programs, Director's Intern and Store Management. The Lutz staff is willing to modify internships to meet the individual needs of qualified applicants. Qualifications include completion or enrollment in a topic related college degree program. For more information, visit www.lutzmuseum.org.

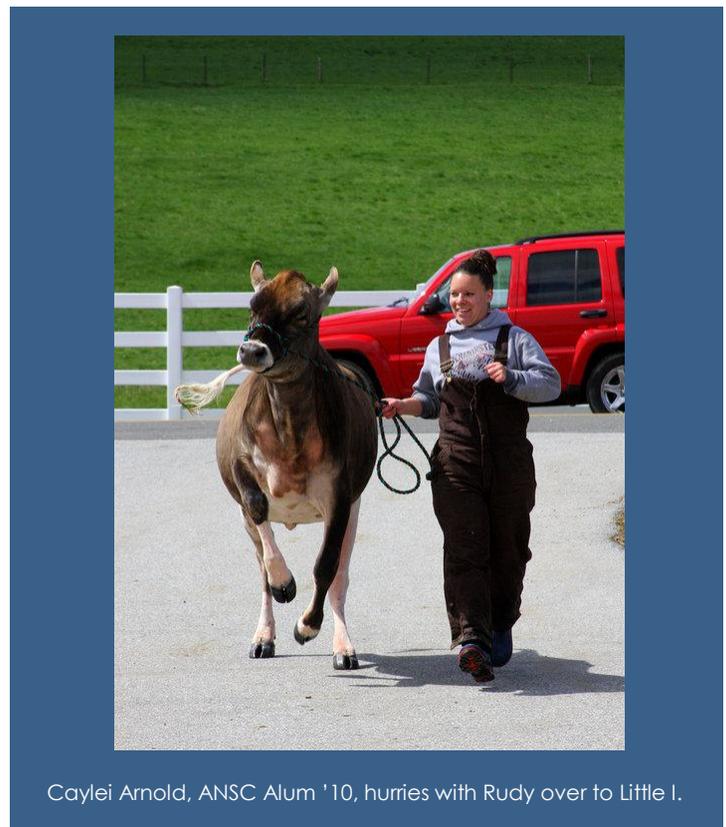
DAIRY BAR SUNDAE SPECIALS – TREAT YOURSELF!



The UConn Dairy Bar's October sundae of the month is UConn Bakery Blueberry Buckle with Blueberries n' Cream ice cream, blueberry topping, and whipped cream. November's sundae will be UConn Bakery Pumpkin Pie served ala mode with caramel topping and whipped cream. The sundae for December is UConn Bakery Apple Pie served ala mode with caramel topping and whipped cream. Only cash and Husky Bucks are accepted. Please visit <http://www.dairybar.uconn.edu/> for more information.

SHARE CLUB & TEAM NEWS IN UC EVENT CALENDAR

If any clubs, teams, or sororities/fraternities want to publicize meeting dates/events or share general news with Animal Science students, faculty and staff, or with the campus as a whole, simply go to <http://www.events.uconn.edu/> and submit your event! Remember to submit your item to the Animal Science Department, College of Agriculture and Natural Resources, and the UConn Master Calendars.



Caylei Arnold, ANSC Alum '10, hurries with Rudy over to Little I.

More ANSC News!



 The Institute of Food Technologists awarded Anup Kollanoor Johny, ANSC PhD student, first place in the 2010 Food Microbiology Division's Z. John Ordal Oral Graduate Student Paper Competition. This award recognizes high merit and outstanding research potential in food microbiology.



 Ranjith Ramanathan, ANSC PhD student, attended the Reciprocal Meat Science Conference in Texas this past summer and placed 2nd in the Graduate Student Research Poster Competition (PhD Division).



 For the 5th year, UConn's dairy herd has won the Progressive Breeders Registry Award. The Holstein Association USA recognizes UConn's accomplishments in breeding a registered Holstein herd that has achieved high standards of both production and type.

ANIMAL SCIENCE DOCTORAL PROGRAM RANKED BY THE NATIONAL RESEARCH COUNCIL

The National Research Council (NRC) reported the results of its evaluation and rankings of various Doctoral Programs. In the field of Animal Sciences, the University of Connecticut was ranked as one of the best programs in the United States (statistically tied for second place) in the same category with Cornell, Iowa State, Michigan State, Washington, and Wisconsin. This is an outstanding recognition of the many programs at UConn that contributed to this accomplishment. For purposes of evaluation, the field "animal sciences" not only included the core faculty from the Department of Animal Science but also numerous faculty from other UConn departments including Natural Resources and the Environment, Nutritional Sciences, Pathobiology and Veterinary Sciences, Plant Science and Landscape Architecture, Molecular and Cell Biology, and, Pharmaceutical Sciences.



INTERNSHIP – EQUINE - COLORADO

The Equine Reproduction Laboratory at Colorado State University is offering one Breeding Farm Internship beginning January 1, 2011. The goal of the program is to provide advanced training in equine breeding farm procedures and management. The program is for one year and is non-degree. Applicants should have recently completed a BS degree in Equine Sciences, Animal Science or related discipline. Reproductive training will include stallion handling, semen collection, semen evaluation, hormone therapy, artificial insemination, embryo transfer, and oocyte transfer. For a detailed job description, and instructions on how to apply, visit their website at http://www.cvms.colostate.edu/bms/erl/erl_internships.htm.

CAREER SEARCH ASSISTANCE



AgCareers.com posts over 2400 agriculture and food related jobs and internships each month. Also, an employment service for higher education, AcademicKeys.com, can send you job announcements via e-mail (e-Fliers)! E-Fliers include university job announcements for targeted audiences. To subscribe to e-Fliers for university jobs in your specific areas of interest, visit <http://agriculture.academickeys.com>.

INTERNSHIP – EQUINE - MARYLAND



Days End Farm Horse Rescue (Lisbon, MD) is now accepting applications for 2011 internship sessions. Interns at Days End Farm are immersed in the daily operations of a non-profit horse rescue by working with neglected and abused horses seized by state-wide Animal Control agencies. Interns can expect to work 50+ hours a week with 50-70 horses. Residential interns live on-site. For more information visit www.defhr.org.

STUDENTS APPLYING TO VET SCHOOL

Resources are available in the Animal Science main office for students applying to vet schools. There's a write-up by a former student regarding her experience applying to vet schools and samples of interview questions from different universities along with the 2010 Veterinary Medical School admission requirements. The Animal Science main office is in the George White Building, room 107.

WE WANT TO HEAR FROM YOU!

The purpose of the Animal Science Student Newsletter is to keep ANSC students informed! Please email Jennifer.Simoniello@uconn.edu if you have suggestions as to topics or news items you would like included in future issues.

Additional ANSC News!



 Congratulations to Elsa Anglin, senior in animal science, recipient of the 2010 Aetna Writing in the Disciplines Award. Elsa is a co-winner in the Sciences category and submitted a paper on "Manx Syndrome of the Domestic Cat." She is graduating this December and has applied to veterinary school. Elsa is invited to read an excerpt from her paper on Thursday, October 28 at the Aetna Awards Night.

ANSC Calendar:

- Oct. 29th: Drill Team Show
- Oct. 30th: Little I
- Nov. 6th: Beef Calf Sale



Visions of fall on Horse Barn Hill.

JUDGING TEAM RESULTS

This fall, ANSC students participated in a dairy judging contest at the Eastern States Exposition in Massachusetts. In the 2 year division, Marjorie Hardy placed 7th overall. She was 2nd in Jerseys, 3rd in oral reasons, and 6th in Guernseys and Milking Shorthorns. In the 4 year division, Jennifer McGuire was 2nd in Brown Swiss and 11th in Ayrshires, and Lisa Dauten was 7th in oral reasons. At the International Post Secondary Judging contest, held at World Dairy Expo, Madison, WI on September 27th, Marjorie Hardy placed 4th overall in the contest; she was 5th in oral reasons, 1st in Brown Swiss, 1st on Milking Shorthorns, and 3rd in Guernseys. Congratulations to all on a job well done!

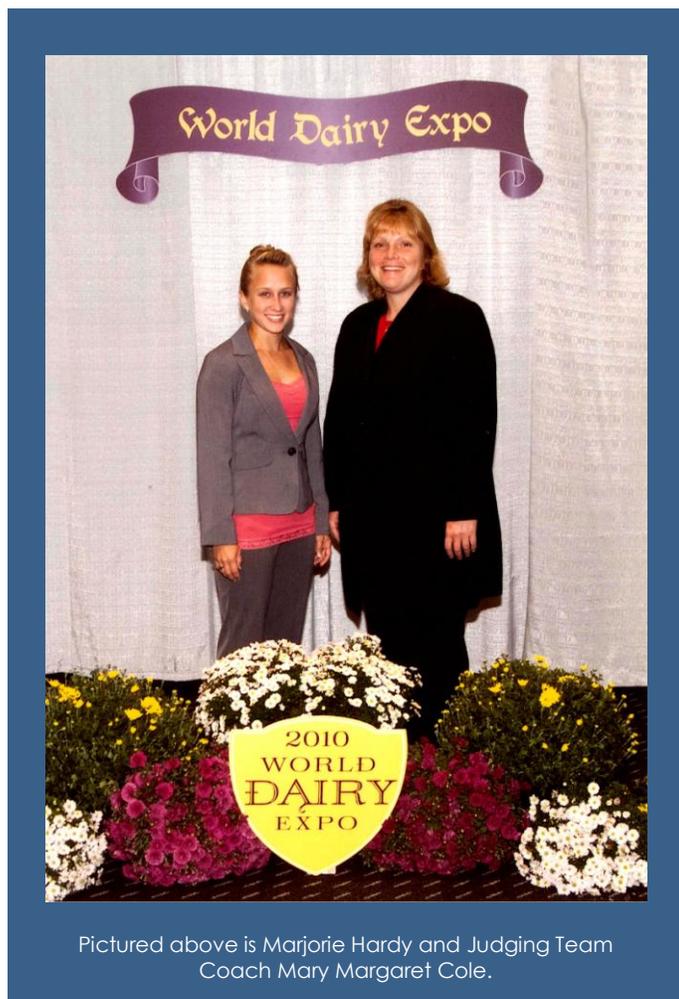
INTERNSHIP – ENDANGERED LIVESTOCK

The SVF "Swiss Village" Foundation is offering a unique internship opportunity to selected undergraduate students involved in agriculture sciences. This organization focuses on the cryopreservation of genetic material from rare and endangered breeds of livestock. The program has a flexible schedule shared between the laboratory, veterinary and livestock departments. SVF will be accepting applications for the Spring 2011 semester through the end of November. SVF staff has met with and/or discussed the program with the following contacts at UCONN who may be able to provide you with additional information: Dr. Michael Darre, Dr. Shelia Andrew, and Beth Settje.

For more information email Sarah at sarah@svffoundation.org or visit www.svffoundation.org.

ANSC LIBRARY AND COMPUTER LAB

ANSC students have access to their own ANSC library (Room 110) and computer lab (Room 016-basement) in the George White Building. The library and computer lab are open 8am to 5pm Monday-Friday.



Pictured above is Marjorie Hardy and Judging Team Coach Mary Margaret Cole.

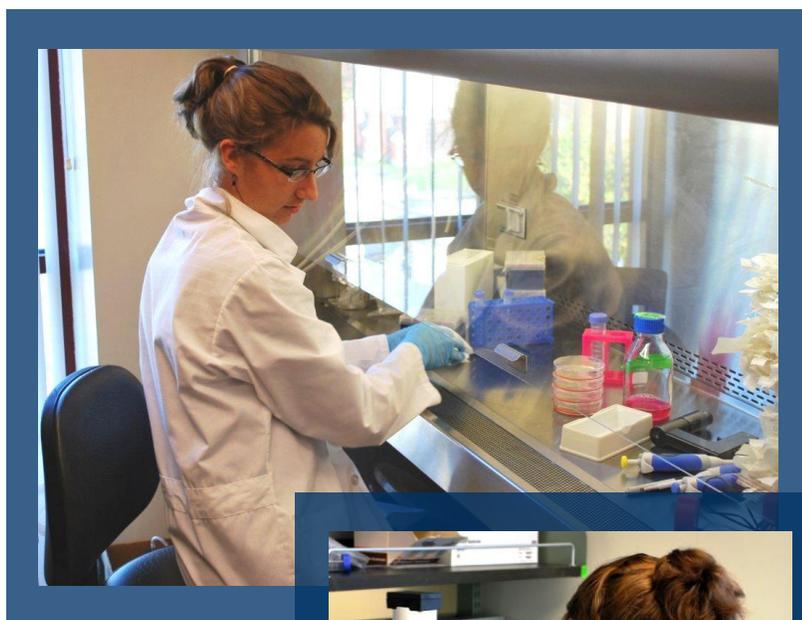
Current ANSC Undergraduates In Research

Animal Science students are currently investigating such topics as Equine Bone Marrow, Meat Color, Lighting and Egg Production, Mastitis in Dairy Cows, and Endocrinology in Development in Steller Sea Lions.

The Department of Animal Science offers undergraduate students opportunities to participate in various research projects during their academic career at UConn. Students conduct research under the mentorship of an ANSC faculty member and/or graduate student so they can apply what they are currently learning in the classroom; prepare themselves for a career in science, receive an introduction to a new area of animal science; and gain empirical knowledge and critical thinking skills necessary to compete for future job opportunities or to strengthen their applications for veterinary school/graduate programs.

This semester we decided to highlight five of our undergraduates who are conducting undergraduate research. You will learn from the descriptions below what these students are studying as well as meet their faculty and graduate student mentors.

Chelsea Mora, an ANSC junior, began her research in Dr. Govoni's laboratory in Spring 2010. She has worked closely with Elizabeth Ackell, a graduate student in the lab, to learn methods of isolation, culture and cryopreservation of equine bone marrow mesenchymal stem cells. The overall goal of this research is to identify optimal methods to culture and differentiate mesenchymal stem cells into osteoblasts for the purpose of healing equine fractures. Mesenchymal stem cells are multipotent cells that have the capacity to differentiate into several cell lineages. Equine bone marrow is collected from the sternum of the horse under standing sedation, and the mesenchymal cells are isolated and expanded on plastic cell culture dishes. It is possible to then expand these cells and introduce them to a fracture site in an injured animal. Chelsea's project focuses on characterizing the proliferation and differentiation potential of cells that demonstrate varying adherence rates. These findings will increase our knowledge of the optimal culture conditions of equine bone marrow stromal cells and improve the efficiency of this method for fracture healing in horses.





Katherine Hebert, an ANSC senior, Katherine Hebert started her research in Dr. Zinn's laboratory in fall 2009. She worked closely with Dr. Julie Richmond, a post-doc in the lab, and Amanda Parillo, the graduate student in the lab, to learn the methods of quantifying the hormones of the somatotrophic axis in serum samples from marine mammals. The somatotrophic axis includes those hormones, such as growth hormone (GH), insulin-like growth factor (IGF)-1, and IGF binding proteins (BP)-2 and -3, that are responsible for regulating growth and nutrient allocation. The project that Katherine is working on focuses on the concentrations of these hormones in serum from free-ranging juvenile Steller sea lions.

The overall goals of this research are to examine the age-related developmental changes in the somatotrophic axis (GH, IGF-1, IGFBP-2 and 3) of juvenile Steller sea lions and determine if hormone concentrations are correlated with growth rate and body composition. The serum was collected from these animals upon capture in Prince William Sound, Alaska. Katherine spent the summer of 2010 quantifying the concentrations of GH and IGF-1 using radioimmunoassay (validated for use in Steller sea lions by Dr. Richmond and Dr. Zinn) and IGFBP-2 and 3 using Western ligand blots. The results of this project will link hormone concentrations of the somatotrophic axis with nutrient status and growth rate in juvenile Steller sea lions and may contribute to the understanding of the decrease of juvenile survival in wild populations of Steller sea lions. Katherine will present her data at the Animal Science Conference held in July 2011 in New Orleans.

Erika Phillips, an ANSC junior, began her research in Dr. Mancini's laboratory in June 2010 under the guidance of Ranjith Ramanathan, a PhD student in Animal Science. Erika currently serves as an undergraduate teaching assistant for ANSC 3343 (Animal Food Products). After learning a variety of fundamental techniques used in meat science research, Erika participated in several projects that assess the role of tricarboxylic metabolites in meat color stability. More specifically, Erika's primary research focus included the effects of succinate-enhancement on beef longissimus raw and cooked color. The results suggest that the addition of succinate to beef can improve raw and cooked color. Results from other projects indicate that postmortem beef is biochemically active and the addition of substrates can influence meat color.

Erika has been offered the opportunity to study abroad in Australia in Spring 2011.





Alison Ritchie, an ANSC senior, is involved in a pilot study with Dr. Michael Darre to determine the effect of providing illumination within individual cages of caged laying hens vs. the traditional lighting method of lamps in the aisle between cage rows. Forty four Single Comb White Leghorns are being utilized for the study. The birds are housed two birds per cage providing ample spacing of 108 sq. inches per bird. The total group has been split into a control and an experimental group both containing twenty two birds.

One set of cages is illuminated with the standard 2700 K compact fluorescent lamps (CFL) hung from the ceiling, and the others with 3200 K light emitting

diodes (LED), placed just above the individual cages. The purpose of the study is to determine the effect of the LED vs. CFL lamps on egg production and feed consumption. Eggs are collected and weighed twice daily and counted relative to each cage. Feed is weighed each week, and feed per dozen and feed per unit mass are calculated. After the study is complete, all forty-four hens will be returned to the general hen population at the UConn Poultry Farm. The findings of this pilot study will be beneficial to the poultry industry to help determine the effects of CFL vs. LED lighting on egg laying birds with regards to feed efficiency and egg production in terms of quantity and size of the eggs produced.

Natalie Santelli, an ANSC senior, began her research with Dr. Andrew in Fall 2010. She has worked with Dr. Andrew and Dr. Riesen in investigating mastitis in dairy cows. This research entails using ultrasound as a method to detect mastitis in dairy cows. The images captured during ultrasounding may be implemented for future use in diagnosing mastitis. Natalie has worked with Dr. Andrew using ultrasound and has learned to operate the machine, capture images and assist in organizing the images for each cow.

This research is very important to the dairy industry because mastitis reduces milk production in infected cows. Inflammation occurs in the mammary gland when it attempts to fight against infection caused by bacteria, chemical

toxins and/or physical trauma to the mammary gland. In order to develop a method/ program that can help decrease mastitis in a dairy herd, that facility must understand what is causing mastitis in their herd. The research done at UConn by Dr. Andrew and Dr. Riesen hopefully can be used to help prevent future infections.

