An Interview with ANSC Major Ashley Kotran regarding her “US MEAT ANIMAL RESEARCH CENTER Summer Internship” (Nebraska, Summer 2014)

Q: Where did you intern, and when?
I interned at the U.S. Meat Animal Research Center, specifically the Reproduction Unit, in Clay Center, Nebraska from May 18, 2014 to July 2, 2014. This Research Center also included three other research units: Genetics/Breeding, Meat Safety and Quality, and Nutrition and Environmental Management.

Q: Was it a paid internship? What did you do there?
Because it was a government job, I was paid a salary of about $11 per hour plus earned leave benefits. I worked in the Reproduction Unit under Dr. Jeremy Miles and his post-doc Dr. Elane Wright. The research project that we were focusing on dealt with determining the role of miRNAs in necrotic tip development of pig placenta. Embryo development and placentation have a significant impact on reproductive performance and sow productivity. During my specific research project, I performed various lab protocols such as PCR, in situ hybridization, immunohistochemistry, immunoblotting, flushing of the sow uterus, embryo elongation, pulverization of tissue, protein and RNA extraction, and sectioning of tissue on the microtome for histology. However, the main reason why I loved this internship was because all the other research scientists (even ones without interns) were always willing to teach and include interns on their specific projects. Therefore, I was also able to milk and weigh pigs, palpate and measure ovaries/uterine horn on heifers using the ultrasound machine, count and aspirate follicles, count and determine the various stages of blastocysts, collect oocytes in the follicles of cow ovaries and fertilize them, witness the process of slaughtering pigs and cattle, review the anatomy of the digestive tract of the cow, and collect tissue from each of those digestive organs.
Q: When did you apply for this internship?

I started the application process over winter break when I had more time; however, the application deadline was in early February.

Q: How long did the internship last?

The educational program ran from June 2 through July 25. However, employment was available from May 4 up to August 30. Most student interns were required to be present for the educational program, although due to some ARMY ROTC obligations they allowed me to leave in early July.

Q: How did you learn about this opportunity?

I received an email through the general College of Agriculture and Natural Resources mass emails that inform the students about available internships.

Q: Anything else you’d like to add about your experience?

The USMARC is a world-renowned animal research facility within the Agricultural Research Service (ARS), the primary research agency of the USDA. The Mission of the USMARC is to develop scientific information and new technology to solve high priority problems for the U.S. Beef, Swine, and Sheep Industries. The Center is located in South Central Nebraska on 35,000 acres. Research approaches involve multidisciplinary teams consisting of 54 scientists and post-docs with emphasis on both short-term and long-term solutions to animal production and product quality. About 50 percent of the research effort focuses on beef cattle, 30 percent on swine, and 20 percent with sheep.

With that said, there is a tremendous amount of resources here including scientists and animals/equipment. It was an amazing opportunity to network with renowned research scientists, who were all willing to help with grad school advice, answer any type of scientific related questions, and allow the interns to participate in all the lab procedures and animal data collections/handling.
Q: What is your area of interest as an ANSC major?
   I am interested mainly in small or mixed animal veterinary; however, research is definitely a possibility.

Q: So, what are your plans when you graduate?
   I am currently in the ARMY ROTC program at UCONN and wish to go to veterinary school to eventually become an ARMY veterinary officer. Army veterinary officers can also be involved in research, which is why I felt I needed to obtain more research experience.

Q: If someone has questions, can they contact you regarding your internship experience?
   Absolutely! They can email me any time at ashley.kotran@uconn.edu or akotran1@gmail.com. They can also refer any questions to Janel Nierman, the Secretary to the Director, at janel.nierman@ars.usda.gov