Dedication to teaching others

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Dr. Lang shares lessons from his long, distinguished career in laboratory animal science.

What made you decide to join the US Army Veterinary Corps after you earned your veterinary degree?

I received a draft notice 1 month before graduating from veterinary school, stating that I would be inducted into the military 2 weeks before graduation. With the help of my faculty mentor and dean, I was given a deferment so that I could graduate and take the state licensing board exams. I was offered a commission by both the Army and Air Force Veterinary Corps, but I chose the Army so that I could start earlier and because, in talking with Brigadier General Russell McNellis, I was impressed with his attention to detail; without notes he knew my background, that I had an interest in research and that the Air Force had also offered me a position.

What kind of work did you do?

I was assigned to the Walter Reed Army Institute of Research (WRAIR), one of the premier assignments for veterinarians. My primary assignment was the veterinary care of dogs, monkeys and rodents; I had no experience with the latter two species, but I had excellent mentors. I found that the specific pathogen–free mouse colonies were contaminated with disease-causing bacteria, viruses and parasites—a major problem for the nuclear biology research program at WRAIR. I established a program to re-derive all of the colonies using germ-free mothers and isolator technology. I performed over 3,000 caesarian sections on pregnant mice. We had visitors from all over the world to see this new technology. Most of the enlisted men at WRAIR were college graduates who had been drafted, and they were doing menial animal husbandry. I started a training program for them that covered basic anatomy, biology, nomenclature and diseases of the animals in their care. Many of them went on to complete studies in the medical sciences. I also was asked by my commanding officer, Colonel Robert Yager, to start a 'VIP' program for pets, including those owned by President John F. Kennedy; I continued this program until my discharge in 1963.

I had originally planned to pursue a career as a large animal veterinarian after my discharge, but I changed my career goals as a result of my Army experience and enrolled in the Laboratory Animal Medicine program at Wake Forest University.

You taught for many years at the Pennsylvania State University. What aspect of teaching do you enjoy most?

My greatest satisfaction was in teaching young veterinarians about species used in research but not covered in the veterinary medical curriculum. I loved their youthful enthusiasm, and I worked to integrate their role into the overall research mission of the institution.

What do you think is the most important thing that you have tried to teach your students?

My former students and faculty are familiar with my 'rules of three': pay attention to detail, critically analyze and have a sense of urgency. Another 'rule of three', for when people complain of a lack of time, is: come in earlier, stay later and work harder.

You have earned several awards and honors for your achievements over the years. After such a distinguished career, what advice can you give those just starting their careers in laboratory animal science?

You can only achieve your potential if you establish a vision and set specific goals to achieve that vision. Many view their mission as merely providing a service; although this is important, you must also become an integral member of the research team. In addition to knowing your animals, you should read and understand the research grant application, not just the animal care and use protocols (a significant number of which do not reflect the hypothesis or ultimate goals of the project). A friend said it best: "if you cannot explain your science to others, then you do not understand it yourself." You must work closely with the research technicians and investigators—they are your clients. In this era of regulatory compliance, it is imperative that you be a 'facilitator' of science and not a 'gate-keeper.'