



*Dr. Kenneth Burton at NBAF.
Courtesy photo.*

Trust the Path

Dr. Kenneth Burton applies lessons to new career path.

Story by Rylee Coy, student writer.

Operating a veterinary practice in Lyons, Kansas, provided a good life for Dr. Kenneth Burton and his wife, Joan. After raising their family, the Burtons decided if an opportunity presented itself to take on a new professional adventure, they were going to seriously consider it. In 2010 they did just that, making the move back to Manhattan, Kansas.

Early days

Dr. Burton always knew he wanted to be a veterinarian. Recalling the influences that led him to pursue a degree in veterinary medicine, he says, “Growing up I had a wide variety of pets. In high school and college, I spent time working for and shadowing a number of veterinarians in both companion and mixed animal practices.”

Upon receiving his DVM at K-State in 1981, Dr. Burton went to Ralston, Nebraska, for his first job as a veterinary associate in a five-person mixed practice. After a year, he joined a mixed-practice partnership at the Lyons Veterinary Clinic, where he practiced for 28 years. In this rural community practice, he saw a mix of everything from companion animals, horses and livestock to emus, elk and mountain lions. He found an additional interest when a foreign animal disease was introduced into the United States.

Questions about the future

“In 1999, the West Nile virus outbreak began on the East Coast,” Dr. Burton says. “Discovered in the Bronx Zoo, West Nile virus is a zoonotic disease transmitted by mosquitoes. It started affecting birds and horses first but it had the potential

to affect humans too. In the fall of 2002, we saw our first case of West Nile virus in our practice and by the next year, cases in horses and humans were occurring all over Kansas. The combination of it being a foreign animal disease with a commonly found vector and easily transmissible to humans triggered my interest in those types of diseases.”

This interest led Dr. Burton to start participating in Federal Emergency Management Agency (FEMA) trainings online.

“After 9/11, out in rural communities, people were concerned about how biological agents might be used against agriculture,” Dr. Burton says. “There was a lot of uncertainty at that point, and no one knew what was going to happen.”

Dr. Burton reached out to the K-State CVM, who then sent Dr. George Kennedy to talk to their producers about biosecurity and biosafety on agricultural operations, such as farms and feedlots.

“In the practice, we started promoting biosecurity measures,” Dr. Burton says. “Then I had the opportunity to go to Alabama for a training by the U.S. Department of Homeland Security’s Center for Domestic Preparedness about weapons of mass destruction focused on agriculture.”

A change of direction

At this training, there were not only veterinarians, but also first responders, and others who worked in agriculture emergency response. While taking opportunities to learn about biosecurity, Dr. Burton reached out to K-State’s National Agricultural Biosecurity Center (NABC) to see if there might be a career opportunity there. Two years later he began work on a NABC project, first as a contractor then hired as its program director.

Not long after beginning work with NABC, Dr. Burton and his wife sold their practice and home and made the move to Manhattan, which is where they have lived since 2010.

“At NABC, we focused on planning, training and education,” Dr. Burton says. “We worked with various states across the nation on their foreign animal disease emergency response plans. During that time, the director of the Biosecurity Research Institute (BRI) asked me if I would be interested in going through the training to work in containment with some research groups and help with projects and necropsies in high containment. It was an opportunity that I took advantage of and was able to work in biosafety level-3 (BSL-3) containment.”

In addition to NABC responsibilities, Burton also served as director of BRI project coordination, providing oversight for

research scheduling, research transition to containment, and pre-project coordination prior to containment.

Protecting the food supply

In 2018, the U.S. Department of Agriculture (USDA) was tasked with owning and operating the new National Bio and Agro-defense Facility (NBAF), in Manhattan, Kansas. NBAF is a state-of-the-art facility that will research foreign animal diseases that threaten the agriculture industry.

“NBAF’s focus is on foreign animal diseases that aren’t currently found in the United States,” Dr. Burton says. “If the diseases are introduced, they would have a devastating effect on our livestock industry, which is the source of our food supply. Many of the diseases we will work with have the potential to be zoonotic, so our mission also serves to help protect public health. All the research we will do is between biosafety level-2 and biosafety level-4, with BSL-4 being the highest level of containment. There is no other facility in the U.S. that has the capability to do BSL-4 research with large livestock, which makes NBAF unique.”

Dr. Burton started this phase of his career in 2018 as the NBAF coordinator, facilitating the initial startup of NBAF



Dr. Burton pictured with his wife, Joan. Courtesy photo.

operational activities. He then transferred to his current role as NBAF's deputy director.

“There are two agencies at NBAF: Animal and Plant Health Inspection Service (APHIS) and the Agricultural Research Service (ARS),” Dr. Burton says. “Neither program can accomplish its missions at NBAF without the other. The facilities team at NBAF, which is the largest group, reports to me. So does our biorisk-management group and our animal-resource unit. I am a member of the NBAF senior leadership group with both APHIS and ARS leaders that is tasked to make sure we are all working together to develop a culture of safety, security and excellence while protecting our nation's livestock from transboundary animal diseases through diagnostics, research, training and education.”

Sum of all experiences

Each of Dr. Burton's experiences helped him reach this point in his career — and are still relevant.

“It's all a journey,” Dr. Burton says. “My career opportunities are a result of a great undergraduate and veterinary education, memorable experiences in veterinary practice, caring mentors and a strong support network. Lessons learned from each of these have led me to this point in my career.”

Something just as important is the support from his family.

“There is no way veterinarians can be as good as they are or do what they need to do without a supportive team,” Dr. Burton says. “My support comes from my wife and our children. Joan has been tremendous throughout the years, especially taking the jump back to K-State with me. She currently works for the KSU Foundation as the executive development officer for the College of Veterinary Medicine. Her role is to visit with K-State veterinary alumni to explore philanthropic opportunities to support the K-State College of Veterinary Medicine. It's great to work doing something that we each care so much about!” 