CAHFS’ NEW TULARE LABORATORY DEDICATED

The Alex A. Ardans Tulare Branch of the California Animal Health and Food Safety Laboratory System (CAHFS) was dedicated in honor of Dr. Alex Ardans, former CAHFS director (1987-2008) on Friday, October 28, 2016. The new state-of-the-art laboratory is slated to open in 2017.

The rain did not dampen the enthusiasm of those that attended the ceremony. Among the speakers were Karen Ross, Secretary, California Department of Food and Agriculture, who stated “California is proud to be home to the largest and most diverse agriculture in the world,” and added that “As we dedicate this new laboratory in Tulare we are reminded that skilled scientists with state-of-the-art diagnostic equipment are truly at the front line, working with farmers, ranchers and veterinarians to protect the safety and security of our nation’s food supply.” Other speakers included Kenneth Burtis, UC Davis Interim Provost, Michael Lairmore, Dean, School of Veterinary Medicine; Annette Jones, State Veterinarian, California Department of Food and Agriculture; Gregg Cutler, poultry practitioner and CAHFS Board member; and John Adaska, CAHFS Tulare Branch Chief. All the speakers highlighted the importance of this new laboratory and gave testimony to the invaluable work Dr. Ardans did during his career, not only for UC Davis but for the people of California and the global diagnostic community.

Dr. Ardans’ vision created one of the top diagnostic programs in the world. One prime example of the great achievements of CAHFS under Dr. Ardans’ leadership is the outstanding support given to animal agriculture and regulatory agencies during natural disease outbreaks such as exotic Newcastle disease, bovine tuberculosis and avian influenza. He also played a pivotal role in the development of the race horse postmortem program and the equine drug testing laboratory at CAHFS.

We at CAHFS are proud to have worked with Dr. Ardans. In the words of John Adaska, Dr. Ardans was “a giant of veterinary diagnostics” and his legacy will live forever.
Bovine

Monensin intoxication was diagnosed in a 6-month-old female Jersey calf with a history of sudden death. The animal was one of 15 calves that died over a weekend after a recent change in ration to a new mineral mix which contained monensin. Necropsy revealed mild pulmonary edema and bronchopneumonia. Histopathology identified myocardial necrosis. The mineral mix was found to have 2.5 times more monensin than indicated in the label and exceeded the recommended dose.

Equine

Equine protozoal myeloencephalitis (EPM) was diagnosed in a 4-year-old Thoroughbred mare that was submitted for necropsy with a history of progressive paresis and atrophy of lumbar muscles. The thoracolumbar spinal cord presented multiple areas of hemorrhage and necrosis with intralesional protozoa that were identified as *Sarcocystis neurona*, the etiological agent of EPM, by immunohistochemistry.

Cholelithiasis (stones in the common bile duct) was diagnosed in a Lusitano gelding that was euthanized after presenting acute hepatic encephalopathy, following 6 months of elevated liver enzymes and intermittent fever. On necropsy the liver was large, firm, diffusely yellow-green and had dilated intrahepatic bile ducts surrounded by fibrosis and filled with thick light green bile. Two large and hard choleliths were present in the common bile duct. Microscopically, the liver presented bridging portal fibrosis, cholestasis and hepatitis, while Alzheimer’s type II astrocytes consistent with hepatic encephalopathy were seen in the brain. Choleliths are not commonly seen in horses.

Small Ruminant

Lentivirus infection was diagnosed in an ewe from a rehabilitation facility. The ewe had bronchopneumonia from which *Pasteurella multocida* and *Corynebacterium pseudotuberculosis* were isolated, and necrotizing encephalitis. The latter was associated with caprine arthritis encephalitis (CAE) lentivirus, as demonstrated by immunohistochemistry. In sheep, lentivirus typically causes respiratory disease, but encephalitis has also been reported.

Pig

Proliferative enterocolitis was found in a 6-month-old Yorkshire pig that died after a 4-day history of black/red diarrhea and anorexia. The small and large intestines were thickened, with corrugated mucosa and there was a large blood clot core in the lumen. Histopathology revealed necrotizing, hemorrhagic and proliferative enterocolitis, with intracellular bacteria suggestive of *Lawsonia* spp. (demonstrated by silver stain in the apical cytoplasm of enterocytes).

Poultry and Other Avian

Botulism was diagnosed in a flock of backyard chickens. Fourteen out of 16 backyard chickens were found dead or recumbent and barely able to move (“crawling” according to owner). No significant gross or microscopic lesions were seen in birds submitted for necropsy. *Clostridium botulinum* toxin type A was detected in the liver of one chicken, confirming a diagnosis of type A botulism. Botulinum toxin is the most lethal bacterial toxin known. Humans and many other animal species are susceptible to botulism. In this case compost was the likely source of botulinum toxins.