



The Alex A. Ardans Tulare Branch Laboratory of CAHFS is closed until further notice

Due to damage caused by flooding, the Alex A. Ardans Tulare Branch Laboratory is closed. Flood waters impacted key building systems and the building is currently non-operational. Repairs will be lengthy. For samples normally submitted to Tulare: direct poultry submissions to our Turlock laboratory, and mammalian submissions to either Davis or San Bernardino. We are in the process of re-establishing mammalian necropsy services in the Tulare area. Please check our website (cahfs.vetmed.ucdavis.edu) for current information. The telephones are, however, working and CAHFS Tulare clients are welcome to call the laboratory telephone number during or after normal hours, as usual, with questions or emergencies. We will do our best to help you find solutions in a timely manner.

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Welcome Dr. Raul Resendiz Pozos

**California Animal Health and Food Safety Laboratory; and
Department of Pathology, Microbiology and Immunology**

Dr. Raul Resendiz Pozos joins the California Animal Health and Food Safety Laboratory and the Department of Pathology, Microbiology and Immunology as Assistant Professor of Clinical Diagnostic Anatomic Pathology, effective April 1, 2023. Dr. Resendiz Pozos received his DVM (2012) from the National Autonomous University of Mexico and continued to complete a one-year externship (2014-2015) with the Anatomic Pathology Section at the Pathology Department of the Faculty of Veterinary Medicine and Zootechnics. In 2017, he completed his MS in Veterinary Medicine (Pathology) from the National Autonomous University of Mexico. In 2023, Dr. Resendiz Pozos completed a combined PhD/European College of Veterinary Pathology residency program at the University of Zaragoza, Spain. Dr. Resendiz Pozos research interests and expertise is focused on the inflammatory and immune reactions in naturally occurring cases of Jaagsiekte sheep retrovirus-induced pulmonary adenocarcinoma.

Bovine

Malignant catarrhal fever (MCF) was diagnosed in a six-year-old Angus cross cow. The animal died after presenting with bilateral corneal edema and seizures for 12 hours. This cow was one of a group of three that had been in close contact with a sheep flock in the property. No significant gross abnormalities were observed but histology revealed inflammation of blood vessels in brain, liver, kidneys and lungs. Ovine herpes virus type 2 (OvHV-2), the cause of MCF, was detected on spleen by PCR. Sheep are frequent healthy carriers of OvHV-2 and can transmit it to cattle; this is the reason why cattle should not be kept in close contact with sheep or share the same environment where sheep had been housed. Although sheep can also become sick with MCF, this species is much more resistant than cattle to the disease.



Corneal edema in a heifer with malignant catarrhal fever





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VETERINARY MEDICINE

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Infectious bovine rhinotracheitis (IBR) virus was the cause of conjunctivitis in 10 yearling Holstein heifers in a group of 100 over a one-week period. The affected heifers had purulent discharge from the medial canthus of the eye, and the third eyelid was swollen and red. In most cases, only one eye was affected. IBR virus was detected by PCR in all 3 conjunctival swabs submitted. Mixed bacterial flora, but no *Moraxella spp.* was found on aerobic culture. *Moraxella bovoculi* and *Mycoplasma bovoculi* was detected by PCR in all 3 swabs submitted. The heifers' last modified live IBR virus vaccine had been given at two months of age.

Porcine

Swine dysentery was the cause of death in a 6-year-old sow from a high school farm. Necropsy revealed multiple colonic ulcers and hemorrhage, and microscopic lesions were compatible with swine dysentery, including the presence of *Brachyspira*-like organisms associated with the lesions. *Brachyspira hyodysenteriae* is the cause of swine dysentery. Damage to the colon allowed bacterial invasion and secondary septicemia leading to peritonitis, pleuritis and pulmonary edema.

Small ruminants

Ruminal bloat was the cause of death in a pregnant black-face ewe from a flock of 40 sheep on wet pasture that also were fed protein pellets and alfalfa hay. Three sheep had died suddenly. The ewe submitted had abundant alfalfa hay, froth and gas in the rumen, and a bloat line on the esophageal mucosa just proximal to the thoracic inlet. The head and neck were congested and the thoracic cavity was compressed.

Poultry and other avian

Pasteurella multocida, the causative agent of fowl cholera, was the cause of increased mortality up to 1-2% per day in a flock of 6,900, 10-week-old turkeys. The birds had copious nasal discharge, labored breathing, lethargy and coughing. On necropsy, all birds had severe pleuropneumonia with consolidation, severe airsacculitis, pericarditis and coelomitis. *P. multocida* was isolated from the heart, liver, airsacs

and lungs. PCR for *P. multocida* on the lungs was positive. Pasteurellosis is typically prevented through good management practices including pest control, proper hygiene and vaccination.

Other Mammalian

The Eurasian strain of highly pathogenic **avian influenza (HPAI)** caused the death of an adult bobcat. Grossly, the lungs were diffusely wet and heavy, and histopathology demonstrated acute interstitial pneumonia. Immunohistochemistry and PCR tests for avian influenza were positive. The influenza virus was typed as H5N1. This is the first detection of the virus in a wild mammal in California, though it has since been found in mountain lions also. Transmission of avian influenza virus to wild mammals has been reported in other states in the US, and is believed to occur via ingestion of infected wild birds.

Equine

Equine coronavirus (EqCoV) was detected in a euthanized 12.5-year-old pony with a 1-day history of neurologic signs. Histologically, there was enteritis with villus blunting, and intralésional coronavirus antigen was detected by immunohistochemistry. An EqCoV PCR test run on the small intestinal content was positive. Hyperammonemic encephalopathy was suspected to have contributed to the development of neurologic signs. Severe, bilateral and symmetrical mineralization was detected in the cerebellar white matter and it was hypothesized that this lesion also may have played a role in the described clinical signs.

Salmonella sp. enteritis was the cause of fever, fulminant watery diarrhea and hypoproteinemia in a 5-month-old Thoroughbred filly. Gross and microscopic exam revealed severe enteritis. *Salmonella* group B was isolated from the small intestine and colon.

