



**UC DAVIS**

**VETERINARY MEDICINE**

California Animal Health and  
Food Safety Laboratory System

# CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • NOVEMBER, 2023



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## HOLIDAY SCHEDULE

CAHFS will be closed on Thursday, Nov 23, and open 8-12 pm Friday Nov 24 in observance of Thanksgiving Holiday

## CAHFS Tulare has Reopened!

The CAHFS Tulare branch is now open for necropsy service (normal business hours, 8:00 AM to 5:00 PM Monday through Friday, emergency or after hours services as arranged with the pathologist on call). We are located in the Veterinary Medicine Teaching and Research Center (VMTRC) on Road 112 in Tulare, directly next door to our Alex A. Ardans laboratory. The Ardans laboratory will require extensive repairs due to flood damage in the basement, and we expect to be at the VMTRC for a couple of years. We have signage in place to direct you to our new receiving area at the rear of the VMTRC, but feel free to stop in the front (administration) building to ask for directions as necessary. Please call the laboratory with any questions [(559) 688-7543] and we thank you for your patience as we worked to restore all services.



Ms. Meredith Rhea receives her award from former AAVLD President, Dr. Jerry Saliki

## Meridith Rhea: AAVLD Outstanding Performance Award

Ms. Meredith Rhea, Supervisor of Necropsy, Shipping & Receiving CAHFS-San Bernardino, was awarded the 2023 Outstanding Performance Award of the American Association of the Veterinary Laboratory Diagnosticians (AAVLD) during the annual AAVLD meeting in October. This award goes to any member of an AAVLD laboratory that has performed work on behalf of their clients in an outstanding fashion. As a natural leader, Meredith leads by example and brings out the best in her colleagues. She plays a critical role in most aspects of the daily activities of CAHFS. Congratulations, Meredith!

## Bovine

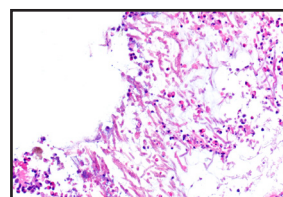
**Anaplasmosis** was diagnosed in two unrelated Angus cattle herds. Six adult cattle from a herd of 70 died over one week and several died over one month in the second herd.

*Anaplasma marginale* serology was positive in a few affected animals from each herd. Blood smears had typical marginal *Anaplasma* sp.-type bodies on red blood cells. Severe anemia (packed cell volume 10-12%) was documented on live cattle in one herd.

## Avian

**Pneumonia and air-sacculitis** caused by *Mycobacterium avium* subsp. *hominissuis* was diagnosed in a backyard chicken with a history of respiratory disease. The animal had also *Aspergillus* spp. isolated from lung. *M. avium* subsp. *hominissuis* is one of the non-tuberculous mycobacteria, which are ubiquitously found throughout the environment and are opportunistic pathogens that can cause respiratory infections in humans and other animals with impaired immune system.

***Aspergillus fumigatus*** infection was diagnosed in a wild, male cormorant. At necropsy, the bird had atrophied pectoral muscles and minimal adipose tissue stores. The coelomic cavity, air sacs, lungs, and pericardium were covered by fuzzy gray to green and sometimes black fungal mats admixed with pale, yellow granulomas. In addition, the proventriculus, gizzard, and cranial portion of the duodenum were filled with abundant nematodes, identified as *Contracaecum* sp. *A. fumigatus* in adult birds usually follows the inhalation of large numbers of spores from heavily contaminated feed, litter, or other environmental materials. Although most healthy birds resist *Aspergillus* spp. infection, the immune system can be overwhelmed by massive exposure.



Microscopic aspect of *Aspergillus* spp hyphae. Hematoxylin and eosin.



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### Equine

**Aortic rupture** was the cause of death in a 3-year-old Friesian filly found dead one hour after being observed playing at the water trough. On necropsy, the pericardial sac was filled with about 2 liters of clotted and unclotted blood and there was a full thickness tear in the ascending aorta surrounded by a 40cm long hemorrhage dissecting the aortic adventitia.

**Theiler's disease** was diagnosed in a 16-year-old gelding with a 4-day history of lethargy, anorexia and elevated liver enzymes. Subsequently the horse exhibited dysphagia, ataxia and circling, and was euthanized. Liver tissue submitted had severe hepatic necrosis and stromal collapse compatible with Theiler's disease. This condition causes liver failure in horses and it has been associated with administration of biological products and possibly emerging viruses. Equine parvovirus was detected in the liver and serum of this horse.

### Porcine

**Gastric ulceration** with hypovolemia was the cause of death of a 6-month-old, mixed breed barrow that was found dead in the morning without previous signs of illness. At necropsy, there was an approximately 2.5 x 3.5 cm crateriform ulcer affecting almost the entire *pars esophagea* of the stomach. The stomach was distended by more than 1.5L of clotted blood. Clotted and unclotted blood was also present in the lumen of the intestine. Multiple factors have been suggested to be predisposing to gastric ulceration in pigs. The administration of finely ground rations is ulcerogenic and it is considered the most important predisposing factor.

### Small ruminants

A six-month-old Babydoll Southdown lamb was diagnosed with sinonasal **coccidioidomycosis** (Valley fever). The lamb had persistent bloody nasal discharge with some respiratory distress, and was treated for bacterial sinusitis while laboratory specimens were submitted for testing, but died unexpectedly. On necropsy, the lamb had bilateral sinonasal occlusion with friable red/tan masses.

Microscopically, the lesions were composed of granulomatous inflammation containing abundant fungal spherules with endospores, morphologically consistent with *Coccidioides* spp. Clinical coccidioidomycosis is rare in sheep and has mostly been associated with pulmonary granulomas.

**Orf (contagious ecthyma)**, along with dental pad ulceration and osteomyelitis of the subjacent bone was diagnosed in a 4-month-old Dorper lamb. On necropsy, the lamb was emaciated, and had a few crusty, brown, proliferative lesions on the lips and chin that were suggestive of orf. This finding was confirmed by histology and PCR. The lamb also had an ulcer over the dental pad with bacterial osteomyelitis of the subjacent bone. The association of the bone lesion and orf was unclear, but it is possible that the orf lesion was a predisposing factor.

### CAHFS is Hiring! Current Open Positions

#### Davis

##### -Lab Research Supervisor Toxicology (56256)

Manage diagnostic testing and related activities in the Organics Analysis Group in the CAHFS Toxicology Section.

[Careers \(universityofcalifornia.edu\)](https://careers.universityofcalifornia.edu)

##### -SRA 2 (Histology Technician) (56257)

Process, section and stain animal tissues for microscopic examination.

[Careers \(universityofcalifornia.edu\)](https://careers.universityofcalifornia.edu)

#### Turlock

##### -Blank Asst 2 (58220)

Provide administrative support to the CAHFS Turlock branch laboratory.

[Careers \(universityofcalifornia.edu\)](https://careers.universityofcalifornia.edu)

