



UC DAVIS

VETERINARY MEDICINE

California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

LEADING DIAGNOSTICS NATIONALLY, PROTECTING CALIFORNIA LOCALLY • NOVEMBER, 2017



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Welcome Drs. Patricia Gaffney & Julia Blakey

Dr. Patricia Gaffney has been working as a contract diagnostic pathologist at CAHFS San Bernardino, Turlock and Davis since August 2016. She has a BSc degree from the University of California, San Diego, and received her DVM, Master's in Preventive Veterinary Medicine and PhD degrees from the University of California, Davis, School of Veterinary Medicine. During her doctoral studies, Dr. Gaffney was the first recipient of the Linda Munson Fellowship for wildlife pathology research. She then completed a residency in anatomic pathology in a combined program with the University of California, Davis and Zoological Society of San Diego, and is a Diplomate of the American College of Veterinary Pathology. Dr. Gaffney's research has focused on naturally occurring disease of wildlife.



Patricia Gaffney



Julia Blakey

Dr. Julia Blakey joined the Turlock laboratory as an Avian Medicine resident in August 2017. Dr. Blakey has an undergraduate degree in Biology from Washington College in Maryland. During her undergraduate years, she had an opportunity to work with poultry and dairy in Maryland and Virginia. Dr. Blakey received her DVM from the University of Florida, and through multiple externships and shadowing experiences continued learning about poultry medicine.

Equine

Acute necrotizing colitis, septicemia, and chronic hepatopathy were diagnosed in a 14-year-old Gypsy Vanner gelding. *Escherichia fergusonii* was isolated from the small intestine, colon and liver, and it was believed to be the cause of the colitis and septicemia. Although *E. fergusonii* is not usually considered a cause of intestinal disease in horses, it has been associated with a case of enteritis and septicemia in a horse before. The liver changes were suggestive of toxicosis by pyrrolizidine alkaloids, which are found in several toxic plants. It is possible that this horse suffered sub-clinical chronic liver failure which lead to immune compromise predisposing to the intestinal infection and subsequent septicemia by *E. fergusonii*.

necrosis. *Clostridium septicum* and *Clostridium chauvoei* were identified by culture and/or fluorescent antibodies in the liver. These findings are consistent with gas gangrene, which usually affects the subcutis and/or skeletal muscles. This case is unusual due to localization within the liver.

Continued

Bovine

Clostridial hepatitis was the cause of abdominal pain in a 6-month-old Holstein heifer. At necropsy, the liver had a single, ~3.0-cm-diameter focus of coagulative necrosis covered by a thin layer of fibrin, which microscopically had a moderate number of intralosomal gram positive rods. Histologically, the heart also had





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Brucella abortus RB51 vaccine strain was the cause of bronchopneumonia and abortion in a 6- to 7-month gestation fetus from a 2-year-old beef heifer that had been vaccinated with RB51 while pregnant. Brucella vaccination is only approved for use in heifers from 4-12 months of age. Vaccination of pregnant and over age heifers can result in abortion.

Small Ruminants

Haemonchosis and coccidiosis were the cause of anemia, hypoproteinemia and diarrhea in 6-month-old lambs on irrigated pasture in a flock of 430 lambs from which 27 had died in 10 days. Submitted lambs had subcutaneous ventral edema including bottle jaw, pale mucous membranes and red to black diarrhea. Very large numbers of *Haemonchus* were seen in the abomasum. Severe haemonchosis also caused the death of adult sheep in two other flocks and a 12-year-old Alpaca.

Pig

Pneumonia due to porcine circovirus type 2 (PCV-2) and porcine respiratory and reproductive (PRRS) virus was diagnosed in a 10-week-old pig that was found dead without clinical signs being observed. This was the only affected pig in the pen. Both PCV-2 and PRRS virus are common respiratory pathogens of pigs, which may act alone or in combination with each other or several bacterial pathogens. In this case no bacteria were isolated from the lung.

Poultry and Other Avian

Escherichia coli and **Ornithobacterium rhinotracheale** co-infection was responsible for cough, ocular and nasal discharge, depression, reluctance to move and increased mortality from an average of 5 to 44 birds per day, in 11.5-week-old tom turkeys of a 6,000-bird flock. Gross and microscopic lesions were observed in the upper and lower respiratory tract and conjunctiva.

Ascites syndrome was diagnosed in a flock of 3,000, 20-day-old broiler chicks. The birds had a history of severe respiratory distress and increased mortality ranging from 80 to 530 birds per day. Ascites syndrome is a metabolic disease of broiler chickens associated with pulmonary hypertension, which normally occurs around 35 days of age. Increased humidity due to wet litter and improper ventilation in the house might have contributed to the early onset and unusually high mortality.

Erysipelas septicemia was diagnosed in two, 14-month-old geese from a commercial flock experiencing increased mortality. At necropsy, both geese had enlarged livers and kidneys; in addition, one bird had necrotic cecal cores and enlarged spleen. Microscopically, degenerative changes and large numbers of gram positive rods were identified in the liver, ceca, spleen and kidneys. *Erysipelothrix rhusiopathiae*, the causative agent, was isolated from the liver and spleen. This bacteria can infect a wide range of avian and mammalian species and is ubiquitous in nature.

Holiday Schedule

CAHFS will be open, but will have limited service on Friday, November 10, 2017 in observance of Veteran's Day.

CAHFS will be closed on Thursday, November 23, 2017 in observance of Thanksgiving and will be open from 8 am to 12 noon on Friday, November 24, 2017 as it is a University of California holiday.

Please contact your laboratory to plan your testing needs accordingly.

