



Welcome Drs. Dayna Goldsmith & Matt Sheley

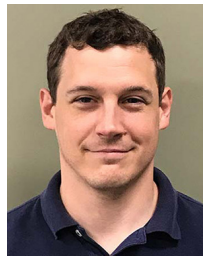
Dr. Dayna Goldsmith joined the CAHFS Tulare lab as a contract diagnostic pathologist in July 2017. Dr. Goldsmith completed her BSc and DVM degrees at the University of Calgary, Canada. In 2016 she completed a residency in anatomic pathology at UC Davis and became a Diplomate of the American College of Veterinary Pathology. Dr. Goldsmith returned to the University of Calgary where she was employed as a diagnostic pathologist and instructor in the veterinary school curriculum. Dayna brings a diverse background in wildlife fieldwork, medicine and pathology to the lab but characterizes herself as a person who has an interest in infectious diseases of all species.



Dayna Goldsmith

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Matt Sheley

Dr. Matt Sheley joined the CAHFS Davis lab as a contract diagnostic pathologist in August 2017. He received his BS degree in 2005 from Juniata College in Pennsylvania, and shortly after, moved to Tulare, CA where he worked on various dairy nutrition and reproduction projects at the VMTRC. He joined the CAHFS Davis Bacteriology section in 2008. Matt was accepted into veterinary school at UC Davis in 2010 and received his DVM degree in 2014. He recently completed a 3-year anatomic pathology residency at UC Davis and successfully achieved diplomate status by the American College of Veterinary Pathology in 2017.

Horse

Oleander toxicosis caused the death of a 4-year-old Quarter horse mare that was off feed and became progressively more depressed over two days before death. Gross examination revealed increased pericardial fluid and hemorrhages on the epi- and endocardium. Histologically, the heart had degeneration and necrosis associated with hemorrhage. Oleandrin, the toxic principle of *Oleander* spp., was detected in the stomach content.

Ureaplasma diversum caused **abortion** in an 8.5-month gestation Holstein fetus from a first lactation dairy cow, and premature birth in an undersized beef calf in an unrelated herd which was also experiencing EBA abortions. Both calves had diffuse interstitial pneumonia. The beef calf also had conjunctivitis. The organism was confirmed by PCR on lung tissue.

Bovine

Nitrate toxicosis was the cause of multiple **sudden deaths** in two cattle operations. On one premises, seven feeder beef cattle were found dead after receiving a new batch of hay. Other pens not receiving the hay were unaffected. The eye fluid from one dead heifer had a nitrate level of 72ppm, (25ppm and higher are considered to be toxic). On an unrelated premises, five beef cows died suddenly within a 12-hour period after consuming a new batch of hay. The hay had 3% nitrate (30,000ppm). Feed levels of 1% nitrate are consistently toxic.

Holiday Calendar

In observance of the University of California's winter holidays, CAHFS will be open with limited services on Friday, Dec. 22, 2017; accepting submissions from 8 am-noon. CAHFS will be closed on Monday, Dec. 25, 2017.

CAHFS will be open with limited services on Friday, Dec. 29, 2017; accepting submissions from 8 am-noon and closed on Monday, Jan. 1, 2018 in observance of the New Year's holiday.





Lab Locations:

CAHFS – Davis

University of California
 620 West Health Sciences Dr.
 Davis, CA 95616
 Phone: 530-752-8700
 Fax: 530-752-6253
 daviscahfs@ucdavis.edu

CAHFS – San Bernardino

105 W. Central Ave.
 San Bernardino, CA 92408
 Phone: 909-383-4287
 Fax: 909-884-5980
 sanbernardinocahfs@ucdavis.edu

CAHFS – Tulare

18830 Road 112
 Tulare, CA 93274
 Phone: 559-688-7543
 Fax: 559-686-4231
 tularecahfs@ucdavis.edu

CAHFS – Turlock

1550 Soderquist Road
 Turlock, CA 95381
 Phone: 209-634-5837
 Fax: 209-667-4261
 turlockcahfs@ucdavis.edu

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Small Ruminant

Johne's disease was diagnosed in a 3-year-old goat doe with a history of losing condition despite having a good appetite. Eventually, the goat developed watery diarrhea and was euthanized. On postmortem examination, there was mesenteric edema with prominent small intestinal serosal lymphatic vessels. The intestinal mucosa was thickened due to granulomatous inflammation with large numbers of acid-fast bacteria. PCR testing of colon content was positive for *Mycobacterium avium* ssp. *paratuberculosis*, the causative agent of Johne's disease.

Pig

Clostridial myositis (gas gangrene) caused marked swelling of axillary tissues in a 6-month-old pig that showed decreased appetite the day prior to being found dead. The large axillary swelling was due to marked edema, hemorrhage, and muscle necrosis. Histologic examination of the region revealed muscle necrosis admixed with gram positive bacilli, some of which were sporulated. Fluorescent antibody testing on muscle from the affected region was positive for *Clostridium novyi* which is one of the agents of gas gangrene in growing, finishing and mature pigs.

Wildlife

Adenovirus hemorrhagic disease (AHD) was diagnosed in deer from Amador and Shasta counties associated with multiple herd mortality events in the last few months. **Epizootic hemorrhagic disease (EHD)**, caused by an orbivirus was diagnosed in deer from Los Angeles, Calaveras and El Dorado counties associated with multiple herd mortality events during the last few months. A retrospective study over a 25-year period demonstrated that AHD is the most common cause of hemorrhagic disease outbreaks in mule deer in California, but the prevalence of EHD-related mortalities in deer has increased this past season.

Poultry and Other Avian

The incidence of **sudden death syndrome** increased in a flock of 49-day-old broiler chickens from average (~0.25%) to high (~1.25%). The disease is also called 'flip-over' syndrome as broiler chickens die suddenly due to atrial arrhythmia and ventricular tachycardia. Severely congested lungs with occasional enlarged heart due to dilated right ventricle are the significant lesions at postmortem. The cause of this condition is not known but genetic predisposition is suspected.

New Antimicrobial Susceptibility Testing Implemented

CAHFS has implemented minimum inhibitory concentration (MIC) testing for assessing antimicrobial susceptibility in pathogenic bacteria. MIC testing evaluates how bacteria respond to specific concentrations of antibiotics in the laboratory, which can then be used to predict which drugs might provide a successful clinical response against that pathogen in the animal. The quantitative information can also be used to guide treatment decisions when there are no data determining susceptible, intermediate, or resistant criteria in published guidelines. The new report format will also include comments designed to assist in clinical management especially when we have to extrapolate from other animal or bacterial species. The fee for this testing will be \$25 effective January 1, 2018. More information is available at www.cahfs.ucdavis.edu.

