



# Public Health Services One Health Epidemiology Program Newsletter

Thursday, February 22, 2024

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## Honoring Black History Month



**Dr. Alfreda Johnson Webb** (1923-1992) – the first African-American woman to receive her Doctor of Veterinary Medicine degree, from Tuskegee Institute (now University) School of Veterinary Medicine in 1949, and the first African-American woman licensed to practice veterinary medicine in the United States.

Dr. Webb held several faculty positions at the Tuskegee University (1950 to 1959) and the North Carolina Agricultural & Technical State University (1959 to 1978), including professor and coordinator of Laboratory Animal Science. Her research focused on histology, cytology, and embryology. She also was involved in the political arena and was the first African American woman in the North Carolina General Assembly in 1972.

**For more information, please visit:**

- [Black History Month - Dr. Alfreda Johnson Webb | Alabama Gulf Coast Zoo](#)
- [Tuskegee's Diversity Legacy Continues Today | American Veterinary Medical Association](#)



**Dr. Jane Hinton** (1919-2003), daughter of Infectious Disease Physician Dr. William Hinton, was a pioneer in the study of bacterial antibiotic resistance and one of the first two African-American women to gain the degree of Doctor of Veterinary Medicine. Before becoming one of the first African American woman veterinarians, she worked in Harvard laboratories to co-develop the Mueller-Hinton agar, which is still used today for antibiotic susceptibility testing. This agar was a medium developed to isolate the *Neisseria* bacteria that caused gonorrhea and meningococcal meningitis and is still considered the gold standard test.

Hinton then studied veterinary medicine at the University of Pennsylvania, gaining her Doctor of Veterinary Medicine (VMD) degree, in 1949. She and Dr. Alfreda Johnson Webb, who graduated from the Tuskegee Institute that year, were the first African-American women veterinarians. Hinton and Webb were also the first African-American members of the Women's Veterinary Medicine Association.

**For more information, please visit:**

- [People of Color in STEM: Jane Hinton | Rocky Mountain Alliance For Minority Participation](#)



**Hazel Johnson** (1935-2011) is considered the Mother of the Environmental Justice Movement. She lived and worked in Chicago where she identified environmental pollution as the cause of cancer and illness among residents of the Altgeld Gardens public housing complex. Johnson founded the "People for Community Recovery" and her work led to removing asbestos, lead abatement, improving water and sewage service, health surveys, trainings, and advocacy work to

empower communities to recognize environmental issues and fight for environmental justice.

**For more information, please visit:**

- [Hazel M. Johnson's Legacy | People For Community Recovery](#)
- [Hazel M. Johnson, 'Mother of the Environmental Justice Movement' | Chicago Public Library](#)
- [Six Black Conservationists and Environmental Activists to Celebrate | The Nature Conservatory](#)

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## Announcements

### Open Positions at the County of San Diego:

- [Part-Time and Full-Time Veterinarian](#), Department of Animal Services

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### The California Department of Public Health (CDPH) - Companion Animal Veterinarian Antimicrobial Use Survey

The CDPH - Center for Environmental Health's One Health Program is requesting your help to understand the factors that impact your antimicrobial prescribing practices when treating companion animals. Please consider taking their [anonymous, 10-15 minute survey](#) to help them understand this complex challenge. Your participation will contribute to research efforts aimed at combating antimicrobial resistance and will aid in the development of materials that may benefit you and your patients.

The survey will be open through February 29, 2024, and can be accessed [here](#). Questions about the survey can be directed to Jason Tin, MPH at [jason.tin@cdph.ca.gov](mailto:jason.tin@cdph.ca.gov) or Kim Conway, DVM, MPVM at [kim.conway@cdph.ca.gov](mailto:kim.conway@cdph.ca.gov). The CDPH values your expertise and participation in their survey.

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### World Wildlife Day

March 3<sup>rd</sup> is **World Wildlife Day** - World Wildlife Day was created by the United Nations to recognize the importance of wild animals and plants. This day was chosen because, on March 3, 1973, the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) was signed. This year's theme is "Connecting People and Planet: Exploring Digital Innovation in Wildlife Conservation." Learn more about World Wildlife Day [here](#).

Did you hear about the orcas off the San Diego County coast? Learn more about orcas [here](#).

## County Resources

### Check Out these County Resources

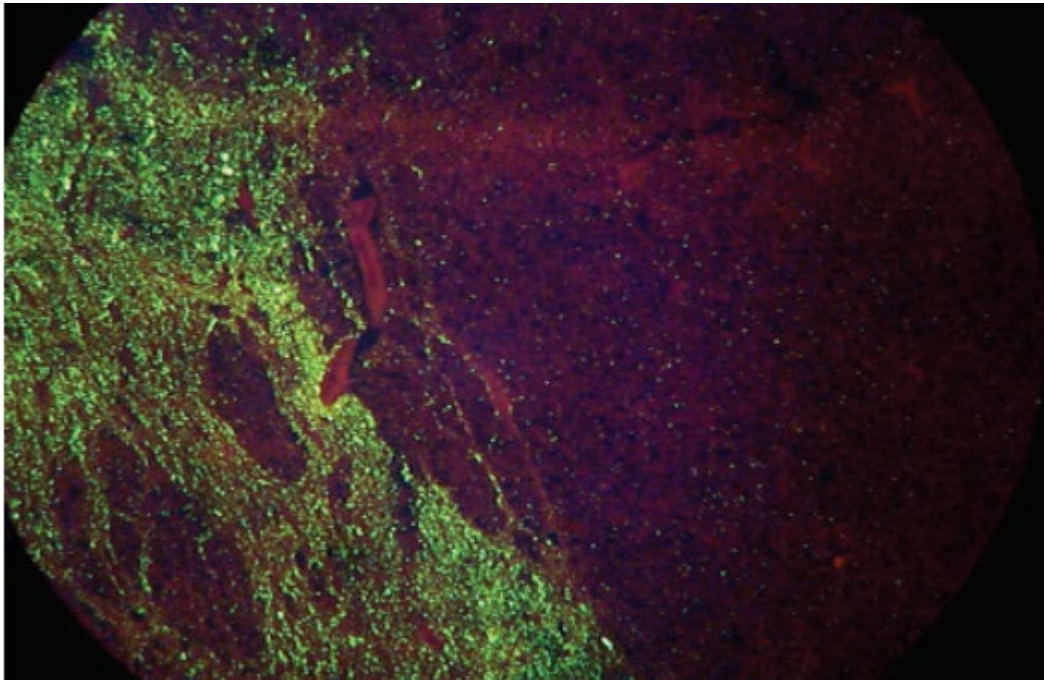


- [County of San Diego Public Health Laboratory](#)
- [OHEP Information Page](#)
- [OHEP Website](#)

## Zoonotic Diseases

### Rabies - County of San Diego Public Health Laboratory

In San Diego County, rabies testing is performed at the Public Health Laboratory (PHL). When indicated, the bodies of animals are submitted directly to PHL, the brain tissue is extracted, and Direct Fluorescent Antibody testing (Figure 1) is performed to rule out rabies. Dogs, cats, bats, skunks, raccoons, and many other species are routinely submitted for testing. The County has successfully maintained a very low rabies incidence due to the ongoing vaccination efforts of veterinarians, animal control professionals, and in part, to our robust and vigilant testing program.



**Figure 1:** Direct Fluorescent Antibody (DFA) test of a transverse section (cross-section) of brain stem from a rabies infected mammal showing unilateral virus spread (green fluorescence - 200X magnification, frozen section).

**Source:** [Protocol for Postmortem Diagnosis of Rabies in Animals by Direct Fluorescent Antibody Testing | Centers for Disease Control and Prevention \(CDC\)](#)

Following an animal bite, the affected area should be washed thoroughly, the individual should seek medical attention, and the bite should be reported to animal control. To learn more, please read the California Code of Regulations (Title 17, §2606), which mandates that the local health officer [animal control], or designee, shall be notified when any person is bitten by a mammal. Animal control should be immediately notified of a bite event whether it takes place at a residence, public space, veterinary hospital, or anywhere else. In San Diego County, animal control agencies cover regions by zip code, and the designations can be found [here](#). When a bite event does occur, the animal control officer will guide the involved parties in the best way to stay safe, protect humans and animals, and comply with the law. This frequently means making a decision about managing the biting animal either by quarantining, for a short period of time, or euthanizing and testing for rabies. The owner is part of this decision-making process.

For more details, see the [California Compendium of Rabies Control and Prevention](#).

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## **Update on SARS-COV-2 in Animals**

### **Background**

Beyond the effect the COVID-19 pandemic has had on people, a range of animal species have become infected with the virus SARS-CoV-2. Typically, animals become infected after interacting with a person with COVID-19. Pets, farm animals, and wildlife have all been documented with SARS-CoV-2 infections. Although the origin of the SARS-CoV-2 virus remains unknown, a range of species such as pangolins, bats, and raccoon dogs have been implicated as possible sources or intermediate hosts.

In the United States, SARS-CoV-2 has been detected in free-ranging deer in multiple states. The virus has been detected via PCR, serology, and whole genome sequencing. Studies into the virus variant have shown deer-to-deer transmission, and due to a variant being detected in deer and then humans, there is evidence suggesting that the virus has even been transmitted from deer back to a person. Ongoing sampling is occurring in white tailed deer and mule deer by the U.S Department of Agriculture (USDA) - Animal and Plant Health Inspection Service (APHIS) and the Association of Fish and Wildlife Agencies. To see the dashboard of reported cases, visit: [One Health - SARS-CoV-2 in Animals | USDA-APHIS](#).

### **Clinical Signs of SARS-CoV-2 in Animals**

There have been rare reports of dogs and cats being infected with SARS-CoV-2. Those pets that have been diagnosed with a SARS-CoV-2 infection have presented with fever, lethargy, coughing, respiratory distress, ocular/nasal discharge, or vomiting and diarrhea. Outbreaks in mustelids, such as farmed mink, have demonstrated respiratory clinical signs, pneumonia, myocarditis, and death. Several other taxa, including non-human primates, felids, and mustelids at zoos have been diagnosed with SARS-CoV-2.

### **Diagnostics**

If you suspect you have an animal patient with SARS-CoV-2, major veterinary laboratories (commercial and academic) can provide testing. Confirmatory testing is available through the National Veterinary Services Laboratory (NVSL). If you believe you have a case of SARS-CoV-2, in an animal, please contact the One Health Epidemiology Program at (619) 692-8499.

### **Treatment and Prevention**

Isolating infected animals is necessary to reduce the risk of subsequent animal infections. People should also take biosecurity precautions and hygiene around

animals with SARS-CoV-2, although animal to human transmission is rare. Treatment is species specific and focused on supportive care for clinical signs. SARS-CoV-2 vaccines for animals are in development and have been trialed on multiple zoo species. To view information for pet owners, visit: [What You Should Know about COVID-19 and Pets | CDC](#).

## References

Frazzini S, Amadori M, Turin L, Riva F. SARS CoV-2 infections in animals, two years into the pandemic. Archives of Virology. 2022 Dec;167(12):2503-17.

Freuling CM, Breithaupt A, Müller T, Sehl J, Balkema-Buschmann A, Rissmann M, Klein A, Wylezich C, Höper D, Wernike K, Aebischer A. Susceptibility of raccoon dogs for experimental SARS-CoV-2 infection. Emerging infectious diseases. 2020 Dec;26(12):2982.

Pickering B, Lung O, Maguire F, Kruczkiewicz P, Kotwa JD, Buchanan T, Gagnier M, Guthrie JL, Jardine CM, Marchand-Austin A, Massé A. Divergent SARS-CoV-2 variant emerges in white-tailed deer with deer-to-human transmission. Nature Microbiology. 2022 Dec;7(12):2011-24.

## Additional Resources

- [Animals and COVID-19 | CDC](#)
- [Animal Health | Food and Agriculture Organization of the United Nations](#)
- [SARS-COV-2 IN ANIMALS: Guidance for Testing and Reporting | USDA-APHIS](#)
- [SARS-CoV-2 Infection in Animals | Merk Veterinary Manual](#)

## How to Contact Us

For more information, contact the San Diego One Health Epidemiology Program through our [contact form](#), via e-mail at [pfs.ohep.hhsa@sdcountry.ca.gov](mailto:phs.ohep.hhsa@sdcountry.ca.gov), or call the Epidemiology Unit at (619) 692-8499.

We want to know if you are seeing any unusual, new, or emerging animal disease or outbreak. We can provide consultation, help investigate these diseases, and provide resources. Keeping us informed helps us protect our human and animal community.

[Sign up for our One Health Epidemiology Network Updates](#)

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## Thank you!

If you have any questions about the content of this newsletter or the One Health Epidemiology Program, please email [phs.ohep.hhsa@sdcounty.ca.gov](mailto:phs.ohep.hhsa@sdcounty.ca.gov).



*The Public Health Services department, County of San Diego Health and Human Services Agency, has maintained national public health accreditation, since May 17, 2016, and was re-accredited by the Public Health Accreditation Board on August 21, 2023.*