Zoonotic Diseases from Dogs

**Cryptosporidium:** Cryptosporidiosis is a protozoan infection associated with animals.
- Reservoir/source of infection: Many mammals, including dogs.
- Transmission: Fecal/oral.
- Disease in people: Self-limiting diarrhea except in immune compromised people where it can be quite severe. No treatment.

**Giardia:** An infection of the small intestine caused by a microscopic organism (protozoa).
- Reservoir/source to people: dogs and other mammals.
- Transmission: Fecal/oral
- Disease in people: Diarrhea, dysentery. Most bacterial pathogens respond to symptomatic and/or antimicrobial therapy.

**Ringworm:** Dermatophyte infection (most commonly *Microsporum* spp. and *Trichophyton* spp.) is commonly known as ringworm because of the characteristic circular lesion often associated with it. Dermatophytes are classified as fungi.
- Reservoir/source to people: Many species of lab animals may be unapparent.
- Transmission: Direct contact with infected animal
- Disease in people: Ringworm is usually self-limiting, often circular with reddened rough skin. Responsive to prescription topical therapy.

**Pasteurella multocida:** Has been associated with bites and scratches from infected dogs.

**Capnocytophaga canimorsus:** Also has been associated with dog bites. It can cause serious systemic illness.

**Enteric Helminths:** Tapeworms, roundworms, hookworms

**Bacteria:** There are several bacterial pathogens, including *Salmonella* spp., and *Campylobacter* spp., that are frequently associated with diarrhea in dogs and pigs and may also cause disease in people.
- Reservoir/source to people: Symptomatic or asymptomatic animals;
- Transmission: Fecal/oral;
- Disease in people: Diarrhea, dysentery (GI infection). Most bacterial pathogens are responsive to symptomatic and/or antimicrobial therapy.
Leptospirosis: *Leptospira* spp. are bacteria found in many animals but are most commonly associated with livestock and dogs. Dogs are typically vaccinated against many different serovars of leptospirosis.

- Reservoir/source of infection to people: Rats, mice, voles, hedgehogs, gerbils, squirrels, rabbits, hamsters, reptiles, dogs, sheep, goats, horses, standing water.
- Transmission: Leptospires are shed in the urine of infected animals. Direct contact with urine or tissues via skin abrasions or contact with mucous membranes has been reported. Transmission can also occur through inhalation of infectious droplet aerosols and by ingestion.
- Disease in people: Flu-like symptoms, mild to severe. Death has been reported.

Rabies: Rabies virus (rhabdovirus) can infect almost any mammal. It is rare in the research environment because dogs are purchased from high quality sources with excellent vaccination and disease control programs.

- Reservoir/source: An infective animal. Dogs shed virus in their saliva 1-14 days before developing clinical signs
- Transmission: Contact with saliva, mucous membranes, or blood on an open wound.
- Disease in people: Never reported in a research facility. Contracted through wild or unvaccinated animals. Rabies in unvaccinated people is almost invariably fatal.

Brucellosis: The bacterial organism, *Brucella canis*, is found in dogs.

- Reservoir/source: Infected dogs.
- Transmission: The mode of transmission of *B. canis* to people is not clear but it is probably oral or trans-cutaneous contact with organism-infected blood or other tissues.
- Disease in people: Flu-like symptoms that may recur.