

# Laboratory Rodent Zoonoses

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***Allergic Reactions to Rodents***

By far the greatest occupational risk to working with rodents is allergic reaction or developing allergies. Those workers that have other allergies are at greater risk. Animal or animal products such as dander, hair, scales, fur, saliva and body waste, and urine in particular, contain powerful allergens that can cause both skin disorders and respiratory symptoms. The primary symptoms of an allergic reaction are nasal or eye symptoms, skin disorders, and asthma.

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## Rat-Bite Fever

While the strain of rats used at UWM rarely bite, it is important to remember that rats can transmit bacteria through bites and scratches. One of the common agents involved is *Streptobacillus moniliformis*, a bacterium that resides in the oral cavity of rats. It is also possible for the bacterium to be transmitted by direct contact with urine or oral secretions of a rat without being bitten. Human infection is characterized by flu-like symptoms, followed by joint pain and a rash on the hands and feet.

The disease can be readily treated with oral antibiotics.

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**Lymphocytic Choriomeningitis Virus**: Lymphocytic choriomeningitis virus infects wild mice world-wide and laboratory animal species including mice, hamsters and guinea pigs. Humans can be infected by inhalation and by contact with tissues or fluids from infected animals. Symptoms include fever, myalgia, headache and malaise. More severe symptoms can occur such as lymphadeopathy, meningoencephalitis and neurologic signs.

*Prevention*: Serologic surveillance of animal colonies at risk and screening of all tumors and cell lines intended for animal passage will help to prevent LCM. Personnel should wear gloves when handling animals and practice appropriate personnel hygiene which includes hand washing