Agent: *Mycobacterium tuberculosis* (in mice)

*Mycobacterium tuberculosis* causes tuberculosis – a contagious disease primarily of the respiratory system in humans and other animals. Infections are usually spread when diseased individuals cough the microorganisms into the air and other persons or animals inhale the infectious aerosol.

**Potential Hazard:** Mice that are experimentally infected with *M. tuberculosis* are less of a risk to transmit the disease because they do not cough. However, tubercle bacilli may be present in the bedding and on the interior surfaces of cages containing infected mice. Personnel are at potential risk when handling infected animals, changing and cleaning contaminated cages. Infectious organisms may be inhaled and cause disease in humans if adequate precautions are not taken: cages are opened outside of laminar air flow cabinets, inadequate use of disinfectants for equipment and surfaces, poor personal hygiene, and insufficient respiratory protection. The signs of tuberculosis are numerous and can be vague with a slow onset. There may be gradual loss of appetite and weight. Infected individuals may tire easily and may have mild fevers that come and go. Other individuals may have flu-like disease with high fever.

**Recommended Precautions:** The animal biosafety level II+ practices (DAR SOP 400-15) will protect husbandry personnel against exposure or infection. Vaccines are not available for use in humans in the United States. Annual or more frequent skin testing with PPD should be done as a surveillance procedure.

**References:** Biosafety in Microbiological and Biomedical Laboratories, 3rd edition, CDC-NIH, 1993, pp. 95-6.