Exposure Response Plan for the Laboratory Handling of *Acinetobacter* species.

*Acinetobacter* is a group of Gram-negative bacteria widely distributed in nature, commonly found in soil and water and as normal flora on the skin. While many species of *Acinetobacter* can cause human disease, *Acinetobacter baumannii* accounts for about 80% of reported infections. Outbreaks of *Acinetobacter* infections typically occur in intensive care units and healthcare settings housing very ill patients; *Acinetobacter* infections rarely occur outside of healthcare settings. Hospital-acquired *Acinetobacter* infections comprise ventilator-associated pneumonia, bloodstream infections, urinary tract infections, wound infections, skin and soft tissue infections, and secondary meningitis. Community-acquired pneumonia due to *A. baumannii* has been described for tropical regions of Australia and Asia, typically affecting people with history of alcohol abuse. *Acinetobacter* species has become more difficult to treat due to its increasing resistance to antibiotics.

**Symptoms of *Acinetobacter* species infection:** *Acinetobacter* causes a variety of diseases, ranging from pneumonia to serious blood or wound infections, and the symptoms vary depending on the disease. *Acinetobacter* may also colonize a patient without causing infection or symptoms, especially in tracheostomy sites or open wounds.

**Transmission of *Acinetobacter* species infection:** *Acinetobacter* poses very little risk to healthy people. However, people who have weakened immune systems, chronic lung disease, or diabetes may be more susceptible to infections with *Acinetobacter*. Hospitalized patients, especially very ill patients on a ventilator, those with a prolonged hospital stay, those who have open wounds, or any person with invasive devices like urinary catheters are also at greater risk for *Acinetobacter* infection. *Acinetobacter* can be spread to susceptible persons by person-to-person contact or contact with contaminated surfaces. *Acinetobacter* can survive well in the environment, as they have been found on equipment and on environmental surfaces and materials, usually in the vicinity of colonized patients.

**Pre-exposure Health Screening:**

Prior to beginning work with *Acinetobacter* species, the Principal Investigator or an Occupational Health Professional will inform each person of the risks s/he takes and of the symptoms s/he may experience following exposure. Individuals with compromised immune system are encouraged to self-identify with the Occupational Health Provider.

**Reporting Exposure Incidents:** Report all exposures to the Principal Investigator/lab supervisor and seek immediate medical guidance from Occupational Health or Occupational Medicine Clinic. Medical evaluations and help with clean up can be obtained by calling Tufts police x6-6911. At the Tufts Medical Center, call 6-5100. Whenever there is an accident or incident involving *Acinetobacter* species, the Biosafety Officer must be immediately notified.
After an Exposure Incident Occurs: Immediate Action by Route of Exposure

- **Inhalation:** If contaminated materials are aerosolized outside of primary containment and potentially inhaled, rinse mouth twice with clean water expelling the rinsate. Do not swallow.

- **Mucous membranes (eye, nose, mouth):** If contaminated material is splashed or sprayed into the face contaminating the eyes, nose or mouth: flush the eyes for 15 minutes, rinse mouth out with clean water and be sure not to swallow, wash down face being sure that the nasal cavities have been rinsed as much as possible.

- **Needle stick or Laceration:** Wash the area with soap and running water for at least 15 min. Do not apply bleach, alcohol or other disinfectant to the skin.

- **Contact with intact skin and clothing:** Remove contaminated clothing using gloves and place objects in plastic bags and dispose of as biological or medical waste. Wash contaminated skin with soap and water for 15 minutes.

After an exposure incident occurs: medical evaluation and follow-up:

Following immediate post exposure actions, please arrange for medical evaluation, diagnosis and treatment, if needed, by contacting the following numbers:

Tufts Medical Center Employee Health Clinic (Boston): 617-636-5480
TCSVM Occupational Medical Clinic (Grafton): 508-887-4241
Mt. Auburn Occupational Health Services (Medford): 617-354-0546

Post-exposure prophylaxis:
There is no routine post-exposure prophylaxis.

If an employee develops signs and symptoms of illness, and illness is identified as being caused by *Acinetobacter* species in the absence of an exposure incident, the Principal Investigator and Biosafety Officer shall be notified immediately. Infection will not be considered laboratory-acquired until proven otherwise.

If patient develops clinical illness following a known exposure, this will be treated as possible *Acinetobacter* infection, and patient will be referred to Health Care Provider for evaluation, as well as appropriate microbiological testing. Any known information on antimicrobial sensitivities or resistances will be relayed from the Principal Investigator to the treating Health Care Provider. If *Acinetobacter* species is suspected based on Gram’s stain of respiratory specimens, or isolated, patient will be reported to Boston Department of Public Health as a possible laboratory-acquired infection.