Name: **Adenovirus / Adenoviral vectors**  
Biosafety Level: 2 +

1. **Mode of Transmission to Humans (e.g. inhalation, inoculation, mucous membrane exposure, etc.):**
   
   Directly by oral contact and droplet spread; indirectly by handkerchiefs, eating utensils and other articles freshly soiled with respiratory discharge of an infected person; outbreaks have been related to swimming pools; possible spread through the fecal-oral route.

2. **Description of the human disease associated with this agent or vector (including instances of laboratory acquired infections):**
   
   Viral diseases of the respiratory tract are characterized by fever and one or more systemic reactions, such as chills or chilliness, headache, general aching, malaise and anorexia.

   Exposure to adenovirus can lead to an acute viral disease of the eye, with unilateral or bilateral inflammation of conjunctivae and edema of the lids and periorbital tissue. Onset is sudden with pain, photophobia, blurred vision, and occasionally low grade fever, headache, malaise, and lymphadenopathy.

   Ten cases of laboratory acquired infections have been documented with wild type adenovirus.

3. **Personnel Protection Required (check all that apply): Provided Laboratories / Vivarium**
   
   | Safety Glasses | Lab Coat | Gloves |
   | Goggles       | Disposable Gowns | Shoe Covers |
   | Face Shield   | Cap/Head Cover   | Mask |
   | Other – Describe: | | |
   |
   L=Laboratory only  
V=vivarium only

4. **Engineering Controls (check all that apply): Provided**
   
   | Autoclave | Sealed Centrifuge rotors | Sealed Centrifuge tubes |
   | Biosafety Cabinets | Engineered Sharps protection | Sharps Containers |
   |
   | Other – Describe: No work with adenovirus or viral vectors in open containers is permitted on the open bench. A Biosafety Cabinet must be used for all manipulations. Laboratory facility should two self closing doors between the biosafety cabinet and public access areas. |
   |
   L=Laboratory only  
V=vivarium only

5. **Approved method of disposal. Provide link to website:**
   
   Collect bio-hazardous waste in double red bags. Tie the bags closed and transport to biohazard collection area in a rigid container.

6. **Approved methods of disinfection:**
   
   The following germicides are effective against Adenovirus / Adenoviral vectors for general surface disinfection:
   
   a. 0.05 % Sodium hypochlorite (1:100 bleach/water made fresh daily) allowing 5 minutes contact time
   
   b. 75 ppm titratable Iodine (3 ounces Wescodyne/ 5 gallons water) allowing 10 minutes contact time

7. **Recommended vaccinations or other medical surveillance:**
   
   Monitor for symptoms; confirm by serological analysis
8. Required vaccinations or other medical surveillance (provided)

\[\text{Not applicable}\]

9. In case of accidental personnel exposure, seek the medical follow-up from the following medical providers:

\[\text{Take the following first aid procedures in the event of employee exposure:}\]

a. Eye Exposure from splash or aerosols - rinse a minimum of 15 minutes in eye wash or flush area with water.

b. Needle stick and/or Sharps Exposure - wash wound area with soap and water.

c. Although there is no effective antiviral treatment known at the time of this writing, UCSD employee researchers may go to the Center for Occupational and Environmental Medicine (619-471-9210) to educate themselves. Also there is the possibility that recognized or experimental treatment may have been discovered since this was written.

d. Follow the steps on \text{What to Do if a Work-Related Injury or Illness Occurs (http://blink.ucsd.edu/Blink/External/Topics/How_To/0.1260.4295.00.html)}

e. If a spill of infectious materials contaminates an employee’s clothes, remove the contaminated clothing, take a cleansing shower, and put on clean clothes.

10. Required biosafety training:

\[\text{Viral Vectors Safety Training}\]