

## STANDARD OPERATING PROCEDURE

### Title: VACCINIA VIRUS USAGE

#### 1. Scope

Cases of laboratory- associated infections with pox viruses (i.e. smallpox, vaccinia, yaba, tanapox) have been reported. Human poxvirus infection ranges from severe systematic febrile disease to less severe rarely fatal vesicular diseases. This SOP was designed to establish a system of information and safeguards that should be followed at the University of Pittsburgh when using vaccinia virus.

#### 2. Procedure

- 2.1 Agent - Vaccinia virus, human host poxvirus, smallpox vaccine
- 2.2 Employees at risk- Naturally or experimentally infected laboratory animals are a potential source of infection to exposed unvaccinated laboratory personnel. Genetically engineered recombinant vaccinia viruses pose an additional potential risk to laboratory personnel, through direct contact or contact with clinical materials from infected volunteers or animals.
- 2.3 Laboratory hazards -Ingestion, parenteral inoculation, and droplet or aerosol exposure of mucous membranes or broken skin with infectious fluids or tissues, are the primary hazards to laboratory and animal personnel. The agents may be present in lesion fluids or crusts, respiratory secretions, or tissues of infected hosts. Some poxviruses are stable at ambient temperature when dried and may be transmitted by fomites.
- 2.4 Required Procedures
  - 2.4.1 All Principle Investigators (PI's) using vaccinia virus, recombinant vaccinia virus or any orthopox virus must be registered with the Biosafety Officer/EH&S. A registration document may be obtained from the web site [www.ehs.pitt.edu](http://www.ehs.pitt.edu) or by calling the Biosafety Officer at 624-8919.
  - 2.4.2 Biosafety Level 2 practices, containment equipment and facilities are required for all activities involving the use or manipulation of vaccinia virus.

- 2.4.3 Laboratories are inspected by EHS to verify appropriate BSL-2 containment and practices.
- 2.4.4 Vaccinia vaccine is required for individuals who directly handle a) cultures or b) animals contaminated or infected with, nonhighly attenuated vaccinia virus, recombinant vaccinia viruses derived from nonhighly attenuated vaccinia strains, or other Orthopoxvirus that infect humans (eg. monkeypox, cowpox, vaccinia, and variola). Individuals refusing vaccination or having medical contraindication may be prohibited from performing tasks with potential vaccinia exposure.
- 2.4.5 All persons working in or entering laboratory or animal care areas where activities with vaccinia, monkey pox, or cowpox viruses are being conducted must have documented evidence of satisfactory vaccination within the preceding ten years.
- 2.4.6 The PI must arrange for all individuals with occupational exposure to vaccinia to be medically evaluated by WorkPartners. Following this counsel, all individuals, as previously described, must sign a Vaccination Immunization Acceptance/Declination form (Appendix A) prior to work with vaccinia at the University of Pittsburgh. Counseling information, in the form of the CDC document "Important Information About Vaccinia (Smallpox) Vaccine" can be obtained by calling the Biosafety Officer at 624-8919. The original form will be maintained by WorkPartners and a copy submitted to the Biosafety Officer, B-50 Benedum Hall, will be filed with the PI's registration
- 2.4.7 Non-lab personnel, such as janitors or trades workers, who may enter labs where vaccinia is used, can be exempted from the vaccination requirements, provided that all work areas have been sufficiently disinfected prior to entry, the workers are informed of the risks associated with entry, the workers are provided appropriate personal protective equipment required for entry, and the workers are offered the vaccination.
- 2.4.8 Laboratory personnel must wear personal protective equipment when handling these agents to include at a minimum a lab coat and liquid barrier gloves. Refer to the University of Pittsburgh Biosafety Manual Section IV for more details on Biosafety level 2 requirements.

### 3. Approval

The University of Pittsburgh's Biohazards Committee and EH&S have reviewed and approved this SOP as attested by the signatures of the Committee Chairperson and the Biosafety Officer.

\_\_\_\_\_  
Committee Chairperson

\_\_\_\_\_  
Date

\_\_\_\_\_  
BioSaftey Officer

\_\_\_\_\_  
Date

NAME: \_\_\_\_\_ SOCIAL SECURITY # \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
(PRINT)

University of Pittsburgh  
Addendum to Participant Consent Form for Laboratory Workers Receiving Vaccinia (Small Pox) Vaccine

The University of Pittsburgh requires vaccinia vaccination for all persons who handle or manipulate vaccinia virus. You have the right to refuse this vaccine; however, if you do not consent to be vaccinated your ability to work in a job function with potential exposure to vaccinia will be affected. This determination will be made by your supervisor, in conjunction with the Department of Environmental Health and Safety, Office of the General Counsel, Human Resources and the University Biohazards Committee.

In case of injury involving vaccinia virus, immediately stop working. Wash the wound site with soap and water, and promptly proceed to Work Partners, UPMC Medical Arts Building, Suite 500.59, 3708 Fifth Ave. Please disregard the "In Case of Injury" portion of the attached consent form.

Questions regarding this consent form or this Vaccinia Vaccine Program may be directed to Environmental Health and Safety, University of Pittsburgh 412-624-9505.

My signature below indicates that I AGREE to accept the investigational smallpox vaccine.

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Signature

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Date

**(a) PRIOR VACCINATION**

If you have previously received the vaccinia vaccination, deliver the necessary documentation to Work Partners/ Employee Health Services 3701 Fifth Ave, Suite 500.59, Medical Arts Building.

**(b) DECLINATION**

I understand that due to my occupational exposure I may be at risk of acquiring vaccinia infection. I have been given the opportunity to be vaccinated at no charge to myself. However, I decline the vaccinia vaccination at this time.

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Signature

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Date