

LANKENAU INSTITUTE FOR MEDICAL RESEARCH

Laboratory Safety Manual

SUBJECT: Human Derived Materials

EFFECTIVE: January 3, 2012

Policy: The Use of human blood, fluids, cells, cell lines, tissues or other potentially infectious material (including cells and human cell lines) must be reviewed and approved by the Biosafety Committee and shall be handled in accordance with the OSHA Bloodborne Pathogens Standards and under Biosafety Level 2 (BSL-2) containment.

Work with human blood, unfixed tissues, certain fluids, and cell lines is regulated by the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard (BBP) (29 CFR 1910.1030). Research personnel and other employees who may have the potential for exposure (occupational) to these materials must receive Bloodborne Pathogen and Biosafety Training for Research Personnel **before** they initiate research activities with any of these materials. Use of these materials may also require review and approval by the Institutional Review Board (IRB)

OSHA requires that all employees receive retraining annually. Your annual training requirement can be fulfilled by completing the online module OSHA Annual BBP training (www.citiprogram.org)

Annual Hepatitis B Vaccination

The Hepatitis B Virus (HBV) vaccination series **is offered** to occupationally exposed employees through Occupational Health Department. Principal Investigators must communicate this to those members of their laboratory to which it applies.

Use of Human Cell Lines for Laboratory Personnel

Human cell lines are commonly used in biomedical research. In 1994, OSHA issued an interpretation of the applicability of the BBP Standard towards human cell lines. According to the interpretation, human cell lines are considered to be potentially infectious and within the scope of the BBP Standard unless the specific cell line has been characterized to be free of hepatitis viruses, HIV, Epstein-Barr virus, papilloma viruses and other recognized bloodborne pathogens.¹ In alignment with this interpretation, the American Type Culture Collection (ATCC) recommends that all human cell lines be accorded the same level of biosafety consideration as a line known to carry HIV.² Moreover, the Fifth Edition of the CDC publication, *Biosafety in Microbiological and Biomedical Laboratories* (BMBL), recommends that human cells should be handled using Biosafety Level 2 (BSL-2) practices and containment.³

References

1. OSHA Letter of Interpretation, http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=21519
2. American Type Culture Collection Frequently Asked Questions, <http://www.atcc.org/TechnicalInfo/faqCellBiology.cfm#Q53>
3. Biosafety in Microbiological and Biomedical Laboratories, 5th Edition, <http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm>

Adapted from the Institutional Biosafety Committee at University of Virginia, <http://ehs.virginia.edu/biosafety/bio.hdm.html>