



Credit: Hans Gelderblom
Subject: Adenovirus
Technique: (80,000x) Transmission Electron Microscope

The Importance of RCV Testing for the New NIH Grant Guidelines

Recent revisions to NIH and AHRQ Grant Guidelines stipulate authentication of key biological and/or chemical resources in order to implement rigor and transparency in their funded research. This authentication applies to cell lines, antibodies, and other biologics.

When utilizing viral vectors, it is important to document that the introduced vector is not replication competent (i.e. does not lead to productive infection).

Adenoviral vectors, specifically, have been shown to demonstrate replication competency in HEK293 cells, with titers increasing through serial passage (Duigou & Young, (2005) J Virology 79:5437-5444) (Lochmüller et al., (1994) Human Gene Therapy 5:1485-1491). The question is no longer whether replication is happening, but how much replication competent virus is present.

All viral vectors administered to animals must be tested for replication competency and documented. RCV documentation must have adequate controls, be quantitative, and have an established cut off appropriate for demonstrating the safety of the vector(s) in use.

The Department of Biological Safety wishes to thank Dr. Mike Mendenhall for his seminar last month on this topic.

For more information visit: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-011.html>

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Biosafety Reminder:

The efficacy of a BSC is dependent upon the behavior of the operator. Procedures that ensure the containment of potentially infectious materials includes awareness of the placement of items inside the BSC.

Blocking the intake grills in the front and rear of the cabinet will interfere with proper functioning of the cabinet, which can cause a loss of containment of infectious organisms.

Storage of excessive materials or equipment inside a BSC can disrupt airflow, resulting in turbulence, cross-contamination, or breach of containment. Therefore, only materials and equipment necessary for immediate work will be placed in the BSC. If necessary, place larger items close to the side-walls, rather than at the back of the cabinet where they will interfere with airflow.



**BETTER BIO
AWARDS**



The Dept. of Biological Safety would like to thank the following labs for setting a shining example of lab housekeeping and maintenance. Well done!

D. St. Clair (HSRB)
S. Perry (Plant Sci)
W. Whiteheart (BBSRB)
J. Beckmann (BBSRB)
Luo, J. (HSRB)



University of Kentucky

Department of Biological Safety

As part of the Division of Environmental Health & Safety, the Department of Biological Safety is responsible for programs concerning the safe use of recombinant and synthetic nucleic acids, infectious agents, and potentially infectious materials such as human sourced materials in the research and teaching laboratories at the University of Kentucky. This includes training, auditing, and consulting with researchers, laboratory personnel and teaching staff concerning compliance with the federal and state laws and regulations in these areas.

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