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GUIDELINES FOR RESEARCH INVOLVING VIRAL VECTORS AT THE UNIVERSITY OF ARIZONA

All work involving recombinant nucleic acids must be approved by the UA Institutional Biosafety Committee as required by the NIH. The default biosafety level of the vector defaults to the Risk Group of the wild type viral strain used. However there are exceptions such as:

- A lower biosafety level may suffice for incomplete viruses cultured in vitro
- A few animal and human viruses qualify for lower biosafety containment
- Animals with recombinant viruses which ordinarily require ABSL-2 may be down-graded to ABSL-1 after 72 hours if no longer shedding virus

However the IBC requires that all viral vectors must:

- Be free of detectable replication competent virus
- Minimize probability of homologous and end-joining recombination which might re-establish wild type virus
- Be produced in the absence of helper virus
- Utilizes a homologous packaging system
- Utilizes self-inactivating derivatives

The following checklist will assist a researcher in determining the proper biosafety level.

1) Are you using adeno-associated vectors (AAV)?
    a. If Yes then BSL-1/ABSL-1
2) Are you using murine retrovirus with ecotropic env gene only?
    a. If Yes then BSL-1/ABSL-1
    b. If No then BSL-2/ABSL-2
3) Are you using Lentiviral vectors HIV or SIV?
    a. If Yes then BSL-2/ABSL-2, but ABSL-1 after 72 hours
4) Are you using a virus that is non-pathogenic to humans or non-human primates (i.e., VSV, mouse retrovirus, FIV, etc.)?
    a. If Yes then BSL-1/ABSL-1
5) Does the transgene encode a potentially tumorigenic gene product, toxin molecule or more than 2/3 of the respective parental viral genome?
    a. If Yes then BSL-2/ABSL-2, but ABSL-1 after 72 hours