University of Nebraska Medical Center
Biosafety Policies and Procedures

UNMC IBC
Biosafety Risk Assessment Summary

IBC34- Form 1

IBC# _____ (to be determined by the IBC Office)

Title of Project

_____

_____

Principal Investigator _____ Date _____

_____

Risk Factor	**Risk Group**
Pathogenicity/virulence	_____
Infectious Dose	_____
Route of Spread	_____
Communicability	_____
Environmental stability	_____
Host range	_____
Economic impact	_____
Availability of prophylactic/treatment	_____
Vectors	_____
Concentration/volume	_____
Recombinant properties	_____
Overall Risk Group	_____
Recommended Containment Level	_____

Notes:_____

_____

_____

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Risk Factor Assessment Outline

Pathogenicity/virulence

RG1 Unlikely to cause disease, low individual and community risk.

RG2 Mild or moderate disease with moderate individual risk and low community risk; any pathogen that can cause disease but under normal circumstances, is unlikely to be a serious hazard to a healthy worker, the community, livestock, or the environment.

RG3 Serious livestock, poultry or wildlife disease with high individual risk and low community risk; any pathogen that usually causes serious disease or can result in serious economic consequences or does not ordinarily spread by causal contact from one individual to another.

RG4 Severe livestock, poultry or wildlife disease with high individual risk and high community risk; any pathogen that usually produces very serious and often fatal disease, often untreatable and may be readily transmitted from one individual to another or from animal to human or vice-versa, directly or indirectly, or by casual contact.

Infectious dose

RG1 Not applicable (rare cause of human disease)
RG2 High (>1,000 organisms)
RG3 Medium (10-1,000 organisms)
RG4 Low (1-10 organisms)

Route of spread

RG1 Not applicable (rare cause of human disease)
RG2 Primary exposure hazards are through ingestion, inoculation, and mucous membrane route
RG3 May be transmitted through airborne route; direct contact or via vectors
RG4 Readily by aerosol transmission

Communicability

RG1 Not applicable (rare cause of human disease)
RG2 Geographical risk of spread if released from the laboratory is limited.
RG3 Geographical risk of spread if released from the laboratory is moderate
RG4 Geographical risk of spread if released from the laboratory is high.

Environmental stability

RG1 Not applicable
RG2 Short term survival (days), can survive under ideal conditions
RG3 Moderately resistant (days to months)
RG4 Highly resistant (months to years), e.g. spores.

Host range

RG1 Not applicable
RG2 Infects a limited number of species
RG3 Infects multiple species
RG4 Infects many species

Economic aspects

RG1 Not applicable
RG2 Limited economic impact
RG3 Severe economic impact
RG4 Extreme economic impact

Availability of prophylactic and therapeutic treatments

RG1 Not applicable
RG2 Effective treatment and preventative measures are available
RG3 Prophylactic and/or treatments may or may not be readily available
RG4 Prophylactic and/or treatments are not available

Vectors

RG1 Not applicable
RG2 Do not depend on vectors or intermediate hosts for transmission
RG-3 May depend on vectors or intermediate host for transmission
RG4 May depend on vectors or intermediate host for transmission.

Concentration/volume

RG1 Not applicable
RG2 Low quantity of high titer
RG3 High quantity (10 liters or more) of high titer as described by the BMBL
RG4 Not applicable

Recombinant properties

RG1 Recombinant is a RG1 organism and modifications have not changed the risk; low probability of RG2 replication-incompetent virus becoming competent

RG2 Recombinant is a RG2 organism and modifications have not changed the risk, DNA from RG2 or RG3 organism is transferred into RG1 organism but not the whole genome, DNA from RG4 organism is transferred into RG1 organism, or the recombinant is a RG3 or RG4 organism and the modification has resulted in proven attenuation; moderate probability of RG2 replication-incompetent virus becoming competent

RG3 Recombinant is a RG3 organism and modifications have not change the risk, the recombinant is based on a RG2 organism; however, the modifications have increased to RG3 organism.

RG4 Recombinant is a RG4 organism and modifications have not changed the risk, DNA from RG4 organism is transferred into RG1organism in absence of demonstration of lack of virulence or pathogenicity.