Biosafety Evaluation

Building		Room(s)	
PI		Designee	

General Microbiological Requirements

Laboratory Practices	Y	N	NA
All personnel wash their hands after working with potentially hazardous materials and before leaving the laboratory.			
Eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food for human consumption are not allowed in the laboratory.			
Mouth pipetting is prohibited; mechanical pipetting devices are available.			
All procedures are performed to minimize the creation of splashes and/or aerosols.			
All lab personnel wear close toed shoes that cover the entire foot, and long garment that covers the legs completely.			
Safety glasses are always worn while in the laboratory especially by persons wearing contact lenses.			
Protective laboratory coats and gowns are available.			
Gloves are worn to protect hands from exposure to hazardous materials and based on appropriate risk assessment.			
Any accidents or injuries must be reported to the laboratory director or principal investigator (PI).			

Needles and Sharps Precautions	Y	N	NA
Policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware are implemented.			
Needles are not bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal.			
Used disposable needles and syringes are carefully placed in conveniently located puncture-resistant containers used for sharps disposal.			
Non-disposable sharps are placed in a hard walled container.			
Broken glassware is not handled directly. Instead, it must be removed using a brush and dustpan, tongs, or forceps. Plasticware is substituted for glassware whenever possible.			

Decontamination and waste disposal	Y	N	NA
Materials to be decontaminated offsite are place in a Regulated Medical Waste (RMW) container with a red liner provided by EHS.			
All cultures, stocks, and other potentially infectious materials are decontaminated before disposal using approved disposal methods listed in the biosafety manual.			
Work surfaces are decontaminated after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant.			
All laboratory surfaces and furniture must be made of a material that is impervious to water, none porous and can be effectively decontaminated using an appropriate disinfectant.			
Sharps containers are sealed when ¾ full and placed in the RMW container with a red liner for disposal.			
All biological waste, including aspirators, is stored in a secondary container.			
BSCs are regularly decontaminated with an approved disinfectant listed in *Appendix B of the Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition*.			
Laboratory has a spill response plan.			

Laboratory Facilities	Y	N	NA
A sign incorporating the universal biohazard symbol and the name of any infectious agents present is posted at the entrance to the laboratory.			
A biohazard symbol is posted on all equipment i.e., refrigerators, centrifuges, incubators, etc. that store and/or are used in the manipulation of biohazardous agents.			
All laboratories are required to have a door sign created with the EHS sign generator that it kept up to date.			
Laboratory has doors that are self-closing and lockable for access control.			
Laboratory has a sink for hand washing.			
Laboratory windows that open to the exterior are fitted with screens. An insect and rodent control program is also in effect.			
Bench tops must be impervious to water and resistant to chemicals used to decontaminate the work surfaces and equipment.			
Eyewash station is readily available.			

Access to the laboratory is restricted to only personnel who have been fulfilled all necessary training requirements (refer to *Training Section*)			

Training Requirements	Y	N	NA
All lab personnel have taken general lab safety training provided by Rice EHS within the last year.			
All lab personnel working in BSL 2 labs or with nonexempt rDNA have taken **Biosafety/Bloodborne Pathogens** training provided by Rice EHS within the last year.			
The laboratory supervisor must ensure that laboratory personnel receive appropriate training regarding their duties, the necessary precautions to prevent exposures, potential hazards present in the laboratory, and exposure evaluation procedures. This training must be documented including general site specific training and biological site specific training.			
All personnel must receive additional training when new hazards are introduced to the lab.			

Biosafety Level 2

Biosafety Level 2 builds upon BSL-1. BSL-2 is suitable for work involving agents that pose moderate hazards to personnel and the environment. It differs from BSL-1 in that: 1) laboratory personnel have specific training in handling pathogenic agents and are supervised by scientists competent in handling infectious agents and associated procedures; 2) access to the laboratory is restricted when work is being conducted; and 3) all procedures in which infectious aerosols or splashes may be created are conducted in BSCs or other physical containment equipment.

Biosafety Level 2 Practices	Y	N	NA
The laboratory supervisor must enforce the institutional policies that control access to the laboratory.			
All persons entering the laboratory must be advised of the potential hazards and meet specific entry/exit requirements.			
Biosafety cabinets (BSC) are used when procedures may create infectious aerosols or splashes			
BSCs are used when working with large volumes or high concentrations of infectious materials			
Equipment must be decontaminated before repair, maintenance, or removal from the laboratory			
Vacuum lines are protected with in line HEPA filters and liquid disinfectant trap			
Animals and plants not intended for research are not present in BSL-2			

laboratories.			
Protective lab coats are worn while working and laundered by an outside commercial contractor. Lab coats should not be worn or removed outside the laboratory and never taken home to be cleaned.			
High concentrations or large volumes of infectious agents may only be centrifuged in an open lab in sealed rotor heads or safety cups.			
Spills and accidents that result in potential exposure to infections materials are immediately reported to the laboratory director.			
Laboratory personnel must be provided medical surveillance, as appropriate, and offered available immunizations for agents handled or potentially present in the laboratory.			
A laboratory-specific biosafety manual must be prepared and adopted as policy. The biosafety manual must be available and accessible.			