

Potentially Hazardous Biological Agents Biosafety Chart

Location (Minimum containment required)	Home	BSL-1	BSL-2 School/RRI	BSL-2 RRI Only (Needs IBC approval.)	Prohibited
Collection and Examination (including culturing).	<ol style="list-style-type: none"> 1. Culturing Prohibited, but organisms may be collected at home and immediately transferred to lab in sealed container. 2. Studies involving student researcher's own body fluids, if not cultured. 	<ol style="list-style-type: none"> 1. Microorganisms, cell lines, or tissue cultures classified as BSL-1 2. Unknowns, under following conditions: <ul style="list-style-type: none"> . Cultured, sealed in standard sterile non-breakable container . Container remains sealed throughout experiment. . Sealed container disposed of by autoclaving or disinfection. 3. Some rDNA, with prior review by SRC. 4. All rDNA studies involving BSL-1 organisms and BSL-1 host-vector systems, including commercially available kits. 5. Fresh/frozen tissue and/or body fluids from non-infectious source with little likelihood of microorganisms present. 6. Capillary blood 7. Human breast milk which has been certified free of HIV and Hepatitis C. 8. Domestic animal blood 9. Students using own body fluids, if not cultured. 	<ol style="list-style-type: none"> 1. Microorganisms, cell lines, or tissue cultures classified as BSL-2 2. rDNA BSL-1 that may revert to BSL-2 3. Selecting and subculturing antibiotic-resistant organisms, even if originally BSL-1. (See prohibited examples 3 and 4.) 4. Culturing human or animal waste, including sewage sludge. 5. Petri dish with unknowns opened for any purpose, except disinfection/ disposal 5. Fresh/frozen tissues or body fluids and meat by-products NOT obtained from food stores, restaurants, or packing houses. 6. Blood obtained by venipuncture. 7. Human breast milk of unknown origin which has not been certified free of HIV and Hepatitis C, and domestic unpasteurized animal milk 8. Human or wild animal blood or blood products 	<ol style="list-style-type: none"> 1. MDROs 2. All rDNA technology studies involving BSL-2 organisms and/or BSL-2 host vector system. 3. All genome editing studies that include alteration of germline cells, insertion of gene drives, use of RTDS, etc. 	<ol style="list-style-type: none"> 1. BSL-3 2. BSL-4 3. Insertion of antibiotic resistant traits that may affect ability to provide effective treatment of infections. 4. Designing or selecting for MDROs to investigate pathology, development, or treatment of antibiotic-resistant infections. 5. Propagation of recombinants containing DNA coding for human, plant or animal toxins (including viruses.) 6. Introduction or disposal of non-native, genetically-altered, and/or invasive species, pathogens, toxic chemicals or foreign substances into the environment.
Pre-Approval	Affiliated fair SRC, IBC, or IACUC	Affiliated fair SRC, IBC, or IACUC	Affiliated fair SRC, IBC, or IACUC. RRI IRB, IACUC, or IBC if required.	Affiliated fair SRC, IBC, or IACUC. RRI IRB, IACUC, or IBC if required.	
Supervision	Designated Supervisor/Qualified Scientist if #2 above.	Designated Supervisor or Qualified Scientist	Qualified Scientist	Qualified Scientist	