

Tissue, Body Fluids & Blood Guidelines

Studies involving fresh or frozen tissue, blood or body fluids obtained from humans and/or vertebrate animals may contain microorganisms and have the potential of causing disease. For this reason, a proper risk assessment (Form 6A) is required along with a tissue certification form (Form 6B).

The following are various guidelines that may or may not apply to a student's project.

- **Tissue Origin:**
 - If tissues are obtained from an animal that was euthanized for a purpose OTHER THAN the Student Researcher's project, it may be considered a tissue study and not a vertebrate animal study.
 - In a tissue study, a Student Researcher may observe the vertebrate animal study but may not manipulate or have any direct involvement in the vertebrate animal experimentation procedures.
 - Use of tissue obtained from agricultural/aquacultural studies require prior SRC approval.
 - If tissues are obtained from an animal that was euthanized solely for the Student Researcher's project, the study must be treated as a vertebrate animal project and is subject to the vertebrate animal rules found on pages 28-31 and Form 5B.
 - Use of human and/or vertebrate animal established cell lines and tissue culture collections (i.e.: from ATCC) must be treated as BSL-1 or BSL-2 in accordance with the source information.
- **RRI Approval:** Use of tissue from research conducted at a Regulated Research Institution requires a copy of an IACUC certification with the name of the research institution, the title of the study, the IACUC approval number and the date of IACUC approval on it.
- **Embryonic Human Stem Cells:** Studies involving embryonic human stem cells must be conducted in a Regulated Research Institution and be reviewed and approved by their Embryonic Stem Cell Research Oversight (ESCRO) Committee.
- **Blood/Bodily Fluids:**
 - All blood must be handled in accordance with standards and guidelines set forth in the OSHA, 29CFR, Subpart Z.
 - Any tissue or instrument with the potential of containing blood-borne pathogens must be properly disposed of after experimentation.
 - Any study involving the collection and examination of body fluids or blood that may contain biological agents belonging to BSL-3 or BSL-4 are prohibited.

Examples of BSL-1 Tissue Studies:

Tissue studies that may be conducted at a BSL-1 laboratory include, but are not limited to:

- Studies involving the culturing of fresh/frozen tissue or body fluids or meat and meat by-products obtained from food stores, restaurants, or packing houses.
- Studies involving domestic animal blood.
- Studies involving a Student Researcher using their own body fluids (if not cultured). Will need IRB approval if the body fluid is serving as a measure of an effect an experimental procedure has on the Student Researcher.
- Studies involving human and/or non-human primate established cell lines and tissue culture collections indicated as BSL-1 by the source. The source and/or catalog number of the cultures **MUST BE IDENTIFIED** in the Research Proposal and on Form 6B.

Examples of BSL-2 Tissue Studies:

Tissue studies that must be conducted at a BSL-2 laboratory include, but are not limited to:

- Studies involving the collection and examination of fresh/frozen tissues or body fluids or meat, meat by-products, pasteurized milk or eggs NOT obtained from food stores, restaurants or packing houses.
- Studies involving human breast milk of unknown origin, unless certified free of HIV and Hepatitis C and domestic unpasteurized animal milk.
- Studies involving human (must also have IRB approval and be considered a Human Subjects project) or wild animal blood or blood products.
- Studies involving human and/or non-human primate established cell lines and tissue culture collections indicated as BSL-2 by the source. The source and/or catalog number of the cultures **MUST BE IDENTIFIED** in the Research Proposal and on Form 6B.

Studies Exempt from Prior SRC Review/Approval

The following types of tissue do not need to be treated as potentially hazardous biological agents and are thus exempt from prior SRC review and approval but **MUST** be included on the Risk Assessment Form 3.

- Plant tissue (except those known to be toxic or hazardous).
- Plant and vertebrate established cell lines and tissue culture collections (for example those obtained from the American Type Culture Collection). The source and/or catalog number **MUST BE IDENTIFIED** in the Research Proposal.
- Human capillary blood collection (i.e.: finger stick) of the Student Researcher to themselves; blood collection from any other human participants must be reviewed and approved by an IRB.
- Fresh or frozen meat, meat by-products, pasteurized milk or eggs obtained from food stores, restaurants or packing houses.
- Hair, hooves, nails, and feathers.
- Teeth that have been sterilized to kill any blood-borne pathogens that may be present. The dentist who provided the teeth must provide a letter certifying the sterilization.
- Fossilized tissue or archeological specimens.
- Prepared fixed tissue.