Tissue Collection Instructions for Immunofluorescence
(This is NOT for Renal or Muscle biopsy samples)

**Purpose:** To obtain a viable specimen and ensure it is transported and processed in a manner that will not only avoid damage to the specimen, but also preserve the cellular structure and constituents.

**Principle:** Fresh tissue that is frozen, for preservation, has improved structure and antigenicity due to its lack of exposure to chemical fixatives. The presence (or lack thereof) of certain proteins, protein combinations, or other cellular components allow for autoimmune and other disease processes to be diagnosed. Specimens are often processed and saved as frozen sections for immunofluorescence and enzyme studies.

**Examples Specimen Types:** Skin, oral mucosa, conjunctiva, lung, heart, and nerve.

--- **Safety** --- Be sure to follow all universal precautions when handling any kind of fresh tissue.

There are two options when handling specimens for immunofluorescence. They are listed in order of preference:

**PREFERRED Method:**

**NOTE:** Time of collection to time of receipt in lab should not be greater than 2 hours.

- Place biopsy on saline moistened telfa (preferred) or gauze, inside a specimen container.
  - Ensure that the container is labeled with two patient identifiers, the location of the biopsy, and the collection time.
- Place the container in a biohazard bag with a cold pack or ice. Place bag inside a larger plastic container or box and send to the Histopathology Laboratory via the quickest transport method.
  - **Note:** The transport container should **not** be a padded envelope.
- Include a “Fresh Tissue/Electron Microscopy” specimen requisition which can be found on the SLUCare Department of Pathology website:
- See the “Required Information and Shipping/Courier Instructions” on page 3.
Alternate Method: For all specimens **EXCEPT** muscle and renal biopsies

NOTE: This method should only be used for specimens that cannot be delivered to the Histology Laboratory the same day.

NOTE: Specimens collected in this manner cannot be submitted for Electron Microscopy.

- Place the specimen in Michel's transport medium (also called Zeus medium).
  - Ensure that the container is labeled with two patient identifiers, the location of the biopsy, and the collection time.
- Place the container in a biohazard bag with a cold pack or ice. Place bag inside a larger plastic container or box and send to the Histopathology Laboratory via the quickest transport method.
  - **Note:** The transport container should **not** be a padded envelope.
- Include a “Fresh Tissue/Electron Microscopy” specimen requisition which can be found on the SLUCare Department of Pathology website:
  - [http://www.slu.edu/pathology-home/reference-laboratories/histopathology-laboratory](http://www.slu.edu/pathology-home/reference-laboratories/histopathology-laboratory)
- See the “Required Information and Shipping/Courier Instructions” on page 3.

Special Considerations:

- Any specimen requiring evaluation by Electron Microscopy should be submitted via the preferred method. Michel’s transport medium **will** cause artifact for Electron Microscopy specimens.
- Michel’s transport medium can preserve tissue for up to 3 days, if refrigerated.
- The Histology Laboratory would prefer to gross the tissue as specimens submitted in Michel’s medium requires extra time/steps and will delay turnaround time.
Required Information and Shipping/Courier Instructions:
1. The patient’s first and last name, a second identifier, and the collection time must be present on all specimen containers.
   a. The information on the container must match the requisition.
   b. The second identifier may be one of the following: patient medical record number, sample/accession/order number, or the patient’s date of birth.
2. Complete all the information on the Saint Louis University requisition.
3. Send specimens with a cold pack or ice. Do NOT use dry ice – it will cause artifact. Make sure all containers are tightly sealed and secured in the transport container.
4. Label and transport via courier to the following address:

   Shipping Address:
   
   Saint Louis University
   Histology Lab, 4th Floor
   Schwitalla Hall, Room 462
   1402 South Grand Blvd.
   St. Louis, MO 63104
   314-977-7874 *

   * It is important to include the Histology Laboratory’s phone number on the label for any questions/issues.

Laboratory Hours: The SLUCare Histopathology Laboratory can receive specimens from 5am until 5pm, Monday through Friday. The Laboratory is closed on weekends and SLUCare holidays. Specimens must be processed immediately upon receipt to prevent degradation of the specimen. To ensure the best possible handling of the specimen, the Hospital or referring institution should notify the Histology Laboratory of any scheduled procedures as soon as possible.

NOTE: Weekend/after hour specimen receipt and interpretation is available upon request. Contact information for the pathologist on-call for biopsies that require processing and interpretation after regular business hours can be obtained from the Histology Laboratory.