## Sample Collection & Handling

### Serum Samples
1. Collect 5 - 7 ml of blood in a red top or serum separator tube.
2. Allow 15 minutes for clot to form.
3. Centrifuge sample to separate serum from clot.
4. Properly label a 2 ml storage tube with:
   - complete patient or animal ID.
   - serum collection date.
5. Transfer 0.5 - 2.0 ml of serum to the storage tube.
6. Store at ≤ 4.0°C until shipped.

**Do not:**
- ship serum in glass tubes.
- freeze or ship frozen whole blood samples.
- ship samples with incomplete labeling.
- label tubes with unnecessary (and confusing) information such as investigator’s name, study numbers, cage numbers, etc.
- allow samples to freeze-thaw before shipping.

### Biopsy and Necropsy Tissue
1. Properly label sample tube(s) with:
   - complete patient or animal ID.
   - tissue collection date.
   - tissue source.
2. Collect a 3 x 5 mm tissue sample.
3. Place sample(s) in separate tubes containing 1 - 3 ml of viral transport media.
4. Store at 2 - 6°C, on dry ice or at ≤ -60°C until shipped.

**Do not:**
- ship glass sample tubes.
- use bacterial culturettes or viral culturettes.
- use the same swab for more than one site.
- place more than one swab site in each tube.
- use less than 1.0 or more than 3.0 ml viral transport media.
- ship samples with incomplete labeling.
- label tubes with unnecessary (and confusing) information such as investigator’s name, study numbers, cage numbers, etc.
- allow samples to freeze-thaw before shipping.

### Virology Swab Samples
1. Properly label sample tubes with:
   - complete patient or animal ID.
   - swab collection date.
   - swab site.
2. Swab each collection site with a separate sterile dacron or cotton swab.
3. Place each swab into separate sample tubes containing 1 - 3 ml of viral transport media.
4. Store at 2 - 6°C, on dry ice or at ≤ -60°C until shipped.

**Do not:**
- ship glass sample tubes.
- use bacterial culturettes or viral culturettes.
- use the same swab for more than one site.
- place more than one swab site in each tube.
- use less than 1.0 or more than 3.0 ml viral transport media.
- ship samples with incomplete labeling.
- label tubes with unnecessary (and confusing) information such as investigator’s name, study numbers, cage numbers, etc.
- allow samples to freeze-thaw before shipping.

### Cerebral Spinal Fluid
1. Collect 3 - 4 ml CSF.
2. CSF must be clean. A bloody sample may compromise test results.
3. Properly label a CSF storage tube with:
   - complete patient or animal ID.
   - CSF collection date.
4. Transfer 3 - 4 ml of CSF to the storage tube.
5. Store at 2 - 6°C, on dry ice or at ≤ -60°C until shipped.

**Do not:**
- ship CSF in glass tubes.
- ship samples with incomplete labeling.
- label tubes with unnecessary (and confusing) information such as investigator’s name, study numbers, cage numbers, etc.
- allow samples to freeze-thaw before shipping.
Sample Packing

1. Before packing, ensure that the Submission Form:
   - is filled out complete and legible.
   - has a name and phone number(s) of an individual to be contacted in emergencies.
   - has a purchase order number or other billing info.
   - is identical to the sample tubes.
2. Use at least 5 lbs of dry ice for swabs and/or CSF.
3. Use dry ice (5 lbs) or frozen cold packs for sera.
4. Use extra coolant for Friday, weekend or holiday shipments.
5. Pack carefully to avoid sample breakage and leaks.
6. Refer to the Federal Register (42 CFR Part 72) for complete regulations.
7. Keep paperwork dry and separate from specimens.

Do not:
   - use wet ice.
   - place samples directly on dry ice. Use appropriate sample containers per the Federal Register (42 CFR Part 72).

Sample Shipping

1. Contact our laboratory prior to shipping by:
   - Telephone: (404) 651-0808
   - Fax: (404) 463-9951
   - email: bvirus@gsu.edu
2. Ship samples ASAP by overnight courier to:
   National B Virus Resource Center
   Viral Immunology Center
   Georgia State University
   50 Decatur Street
   Atlanta, Georgia 30303
3. Label packages AND airbills shipped on Friday for “Saturday Delivery”. Contact our office with the airbill number for tracking missing packages on the weekends.

Recommended Materials

Serology
1. Use red top (RT) or serum separator tubes (SST).
2. Transfer sera to a 2 ml storage tube (ST) for shipment.
3. Possible supply sources and catalog numbers:
   - Fisher
     1-800-766-7000
     RT: 02-685B
     SST: 02-657-12
     ST: 03-341-18A
     www.fishersci.com
   - VWR
     1-800-932-5000
     RT: VT6431
     SST: VT6511
     ST: 66008-852
     www.vwrsp.com

Virology
1. Our laboratory suggests the use of commercially prepared viral transport media (VTM).
2. Possible supply sources and catalog numbers:
   - Bartel’s (Division of MarDx)
     1-800-331-2291
     VTM: #B1029-35
     Flex Trans: #B1029-90
     www.trinitybiotech.com
   - Micro Test (Division of Remel)
     1-800-255-6730
     VTM: #M4-3
     www.remelinc.com
3. The following media may also be used with the addition of 200 U/ml Pen-Strep-Fungizone or 50 µg/ml Gentamycin with 0.50 µg/ml Fungizone.
   - tryptose phosphate broth
   - Earle’s balanced salt solution (Sigma #EG267)
   - Hank’s balanced salt solution (Sigma #H9394)
   - normal saline
   - phosphate buffered saline
   - any sterile, osmotic, buffered solution, pH 7.0
4. The addition of a cryopreservative such as 1% calf serum or 1% fetal bovine serum is recommended for the above media other than tryptose phosphate broth.

Testing Charges
1. $60.00/serum for serologic analysis.
2. $40.00/swab for virology testing.
3. $200.00/sample for Polymerase Chain Reaction (PCR) analysis.

Important Phone Numbers

B Virus Laboratory
1. Dr. Julia K. Hilliard, Ph.D., Laboratory Director
   - Ph: 404-651-0808
   - Fax: 404-651-0814
   - email: bvirus@gsu.edu
2. Martin J. Wildes, MT (AAB) Laboratory Supervisor
   - Ph: 404-651-0792
   - Fax: 404-651-0814
   - email: mwildes@gsu.edu
3. Primary Clinical Consultants
   Dr. Norman Bernstein, M.D.        Dr. David Davenport, M.D.
   Ph: 540-374-3277                  Ph: 269-341-6400