National Biological Sample and Data Repository for PAH (PAH Biobank)  
Blood Draw Instructions

1. Identify eligible WHO Group 1 PAH patient according to the Inclusion-Exclusion Checklist (version 1.2) and obtain Informed Consent for PAH Biobank.

2. Fill out provided Sample Form pre-labeled with Center number and patient number to include with shipment.

3. Pre-labeled vacutainers are supplied as follows:
   a. 2- 7.5 ml Red/Gray tops (serum separator transport tubes (SST))
   b. 2- 10 ml Pink tops (EDTA)
   c. 1- 8.5 ml Yellow top (acid citrate dextrose (ACD))
   d. 2- 2.5 ml PAXgene

4. Obtain blood samples in supplied vacutainers from enrolled patient in the following order:
   *NOTE: Please fill tubes fully to ensure that an adequate sample is available for processing. Please allow 10 seconds for complete blood draw into PAXgene tube to take place. Ensure that the blood has stopped flowing into the tube before removing the tube from the holder. The PAXgene Blood RNA Tube with its vacuum is designed to draw 2.5ml of blood into the tube.
   a. 2- Red/Gray tops (SST) – invert 5x immediately after collection
   b. 2- Pink tops (EDTA) – invert 10x immediately after collection
   c. 1- Yellow top (ACD) – invert 8x immediately after collection
   d. 2- PAXgene tubes – invert 10x immediately after collection

5. Pediatric patients: In the case of pediatric draws where the full blood draw above is not possible, 1 10 ml EDTA tube is a necessity. However, if possible, the following is ideal: 1SST, 2 EDTA, 1 PAXgene. Please inform the PAH Biobank of the tubes drawn for pediatric samples.

6. Use a marker to label all tubes with gender, and year of birth.

7. Post draw processing:
   a. Red/gray top (SST) tubes:
      (1) Invert 5 times after collection and allow to sit for 30 minutes (and no more than 3 hours) at room temperature.
      (2) Following the 30 minutes, SST tubes must be centrifuged at 1000-1300 x g for 10 minutes.
      (3) Place in refrigerator until same day overnight shipping.
   b. Pink top EDTA tubes and PAXgene tubes should be refrigerated until same day overnight shipping.
   c. Yellow top ACD tubes should be stored at room temperature until same day overnight shipping.
   d. Never freeze samples, all tubes should be stored in a refrigerator until same day shipping.

8. Ensure blood draw information is completed on Sample Form.

9. All blood tubes and Sample Form will be shipped the same day for overnight delivery using the supplied Refrigerated/Ambient Combination Shipping System and refrigerant packs (must be frozen at least 24 hours before shipping) according to the enclosed packing-shipping instructions. FedEx account number for shipping will be provided. Overnight shipments can be Monday-Friday for arrival Tuesday-Saturday. For Saturday shipments, please check “Saturday delivery” on FedEx Airbill.

10. Notify PAHbiobank@cchmc.org that a sample is being shipped. Include tracking number and center number/Biobank patient number in email.

Version 1.3 (updated 08-08-2013)