1.0 Purpose

This document describes the process for the collection of human plasma from whole blood.

2.0 Scope

These guidelines apply to personnel intending to preserve plasma for biobanking studies.

3.0 Requirements:

3.1. Equipment:

3.1.1 Centrifuge with swinging bucket rotor

3.1.2 -80°C Freezer

3.1.3 Biosafety Cabinet Hood

3.1.4 Pipette Aid

3.2. Materials:

3.2.1 Cryovials (Nalgene/Nunc #368632 for ITN labs)

3.2.2 15ml and 50ml Sterile, Polypropylene, Conical, Centrifuge Tubes

3.2.3 Sterile pipets

3.2.4 Sterile cryovials

4.0 Method:

4.1 After collection, gently mix the blood by inverting the tube 8 to 10 times. Store vacutainer tubes upright until centrifugation. Blood samples should be centrifuged within four hours of blood collection.

4.2 Centrifuge blood samples in a horizontal rotor (swing-out head) for 15 minutes at 1300 g at room temperature.

4.3 After centrifugation, plasma layer will be at the top of the tube. Mononuclear cells and platelets will be in a whitish layer, called the “buffy coat”, just under the plasma and above the red blood cells (additional processing of these cell fractions is optional).

4.4 Carefully collect the plasma layer with an appropriate transfer pipette without disturbing the buffy coat layer. If more than one tube is collected, pool the plasma samples from both tubes into a 15 ml conical tube and mix. Pipette the plasma into appropriate sized aliquots in labeled cryovials. Aliquot

volume is recommended to be 100 µl or 250 µl (max 500µl); Close the caps tightly and place on ice. This process should be completed within 1 hour of centrifugation.

4.5 Place all aliquots upright in a specimen box or rack in -80°C freezer.

RECORD

1. Date and time of blood collection

2. Number and volume of aliquots prepared

3. Date and time into -80°C

4. Date and time of shipping

5. Any freeze-thaw that occurs with a sample for any reason

6. Any variations or deviations from the SOP, problems, or issues