

<b>SOP</b> – standard operating procedure		<b>Collection of blood samples</b>	
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Author Gerd Johansson	Approved by Göran Hallmans		Date 2006-05-17

## **General instructions (for the VHU –project)**

### *Preparation*

For all handling of blood samples great care must be taken. Always use disposable gloves. To avoid risk of contamination between samples, always use disposable pipettes and perform the pipetting on a clean area.

For each donor, 10 colour-coded cryo tubes are used. Check that the serial code on all tubes is identical. The serial code must be written on the delivery note and in the medical record.

Place the cryo tubes in a tube rack and in the following order: 3 (lilac), 1 (yellow), 1 (red), 3 (green), 1 (brown), 1 (blue). Place the delivery note under the tube rack.

Prepare one 10 ml EDTA Venoject tube (lilac top), one 10 ml heparin Venoject tube (green top), and two fresh disposable pipettes.

### *Description*

The blood samples are divided into plasma, buffy coat and erythrocytes for long term biobanking.

1. The patient **must** have fasted for at least 8 hours prior to blood sample collection.
2. Check the identity of the donor by asking for name and personal identity number.
3. Other useful information, such as the patient's medical history, dietary supplements, fasting duration, and any discrepancies, should be reported on the delivery note.
4. The informed consent form must be signed.
5. Allow the donor to **rest for 5 minutes** in a horizontal position before collecting the blood samples.
6. Draw **10 mL of blood** (without stasis) into the EDTA Venoject tube and 10 mL of blood (without stasis) into the Heparin Venoject tube.
7. Invert the samples **10 times** or until the EDTA and the heparin has dissolved.
8. Store the samples in a tube rack for **15 minutes** (room temperature).
9. Centrifuge both samples for 15 minutes at 3200 rpm (1500 x g) at room temperature.
10. Use a fresh disposable pipette for each centrifuged tube. Distribute **3 aliquots of plasma (1.6-1.8 mL each) from the EDTA test tube** (lilac lid) to the corresponding cryo vials (lilac). Transfer the buffy coat (approximately **1.6-1.8 mL**) to the cryo tube with the yellow lid. To ensure that most of the white blood cells are collected in the proper tube, pipette the buffy coat fraction generously, with the margin in the plasma and the erythrocyte fraction. Transfer the remaining erythrocytes, approximately **1.6-1.8 mL**, to the cryo vial with the red lid.

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11. Using a fresh disposable pipette, **repeat the procedure** with the heparin-treated blood sample (green lid). Transfer 3 plasma aliquots (1.6-1.8 mL each) to the cryo vials with green lids, the buffy coat fraction (approximately 1.6-1.8 mL ) to the cryo vial with the brown lid, and the erythrocyte fraction (approximately 1.6-1.8 mL) to the cryo vial with blue lid.
12. Seal the lids properly and place the 10 cryo tubes in the next row in the box kept in the freezer.
13. The samples must be placed in the freezer (**preferably at -80° C**) **within one hour of collection**. If the unit collecting samples does not have such a low temperature freezer available, then the samples will be picked up each week and delivered to a -80° C freezer.