SOP 2.5.9 Blood Collection for Metabolomics using Serum

SOP Number: 2.5.9
Version Number 1.0

	Name	Title	Date
Author			
Authoriser			

Effective Date	
Version Number	

Purpose

This SOP describes the procedure for blood collection for serum isolation for metabolomic studies.

Responsibility

It is the responsibility of the research personnel carrying out this procedure to ensure that all steps are completed both competently and safely.

Equipment/reagent requirements

- Blood collection system
- Personal protective equipment; gloves, laboratory coat, protective glasses
- Blood collection tube: SST or plain tube
- A polystyrene container with ice to maintain temperature at 4°C for processing and /or transport to processing laboratory, or alternatively use a water-bath (plus a thermometer) with iced water to maintain the temperature at 4°C or a pre-conditioned gel pack at 4°C
- Refrigerator (2-4°C) if overnight sample storage is required
- Centrifuge capable of generating a G force of 1,100-1,600g at the bottom of the tube

Procedure

1. Draw blood directly into the evacuated tube. Filling the tube to the black mark on the tube label indicates that the correct amount of blood has been drawn.

2. The blood collection tube is labeled appropriately either with a unique study identification number and/or a bar code label generated electronically.

3. Record the time that the sample was taken in the study specific documentation or data management system.

4. Allow the blood to clot for 15-30 min at RT (18-22°C). Record clotting time in the study specific documentation or data management system.

5. Centrifuge tubes within *2 hours* of collection to separate serum from cells. Maintain tubes at 4°C during processing. Place the blood collection tubes in a centrifuge and spin at 1,600g for 10mins at 4°C. Record the time processing initiated.

6. Using a plastic transfer/Pasteur pipette collect serum being sure not to disrupt the clot or gel. Transfer the serum into 0.5mL cryostorage tube(s) maintained at 4°C which have been labeled as per point 2 above.

7. Transfer tubes to a -80°C freezer for storage. If there is not a -80°C freezer on site transport to the processing laboratory at 4°C in a polystyrene container on ice. The specimen should reach the -80°C as soon as is practicable or within 48 hours of collection. Record the time of storage in the study specific documentation or data management system.

Note: As a general rule samples should be processed and reach the appropriate storage conditions as soon as is practicable. The maximum time limits proposed are guidelines and should be read in association with a study specific protocol.

Change History

SOP Number	Effective Date	Significant Change	Previous SOP No.