

STEM CELL ASSAY LABORATORY  
STEM CELL RESEARCH LAB  
TERRY FOX LABORATORY  
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**INSTRUCTIONS FOR THE COLLECTION AND DELIVERY OF SPECIMENS  
FOR STEM CELL CULTURE**

1. Collection of Specimens:

- a. Peripheral Blood – 20 to 30 ml is collected into green-topped (sodium heparin) vacutainer tubes.
- b. Bone Marrow is collected into our Stem Cell Culture tubes. 1 to 3 ml of marrow should be placed into the specimen tube as aseptically as possible. Mix well by inversion after tightly replacing the cap. (Stem Cell Culture Specimen tubes are obtained directly from the Stem Cell Research Lab. Each tube contains 800 units of pre-tested preservative-free heparin, sufficient for a 5 ml marrow aspirate.) Please check the expiry date on the label to ensure the medium has not expired.

**The specimens tubes must be labeled with: the patient's name, another unique patient identifier such as birth date or PHN; type of specimen; the date and time the sample was drawn.**

**A Stem Cell Culture Assay ideally requires both a peripheral blood and bone marrow sample for a complete assessment of the colony-forming hematopoietic stem cell compartment.**

**The Erythropoietin (EPO)-independent Erythroid Progenitor Assay (also called endogenous erythroid growth) is done only if the working diagnosis indicates a myeloproliferative disorder or if specifically requested by the physician.**

2. To Send a Specimen:

Fill out the enclosed requisition form completely and include it with the specimen(s). **Please note that specimens from patients who have an infectious blood borne disease should not be sent unless prior arrangements have been made with Dr. Allen Eaves at the Terry Fox Laboratory (604) 675-8000 local 8125.**

Specimens must be processed as quickly as possible the same day of collection, or if stored at 4<sup>o</sup>C, no longer than 24 hours after collection. Hence, specimens should be sent immediately by courier or taxi within the city or by air if out of town.

Specimens should be sent in a Styrofoam container together with a cold pack to slow down those processes that decrease stem cell viability. **But DO NOT** allow the specimens to be in direct contact with the cold packs, as the cells may freeze and die. Wrap the specimen tubes in some kind of insulating material such as paper towel, before placing in container.