

# Alliance Lab

## Specimen Processing Clinical Lab

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### About Me

I am a student at Bellevue College pursuing a Bachelors in Molecular Biosciences. I am amazed by genetics and the human body and motivated to be able to help humanity fight cancer and other hereditary diseases.

### Overview of the Lab

Alliance Lab is a clinical lab located in Building 1 of Fred Hutch Cancer Center. It offers preanalytical and analytical laboratory services for oncology patients. My rotations through Alliance Lab included specimen receiving, aliquoting, transfusion services, hematology, chemistry, and technician assistance for bone marrow procedures. The lab uses Epic as their electronic medical record which holds patients' chart information, and Sunquest which is the laboratory information system.

### Alliance Lab's Connection to Fred Hutch's Mission

- Alliance Lab provides excellent patient care. Clinical testing is used for decision making regarding treatments and diagnostics for FHCC patients.
- Alliance Lab ties its commitment to diversity to Fred Hutch's mission of learning across our differences and similarities to make us stronger.
- Alliance Lab members maintain a diversity of perspectives, approaches and methods that enable us to act with the best intentions; and demonstrate public and private actions consistent with our regard to each person's purpose and contribution.

### Alliance Lab Departments

#### • Specimen Processing Services Receiving:

This bench is responsible for electronically receiving all laboratory specimens in Sunquest (LIS). The lab has the capacity to process tubes with different kinds of additives. Tubes collected are dependent on the testing required.

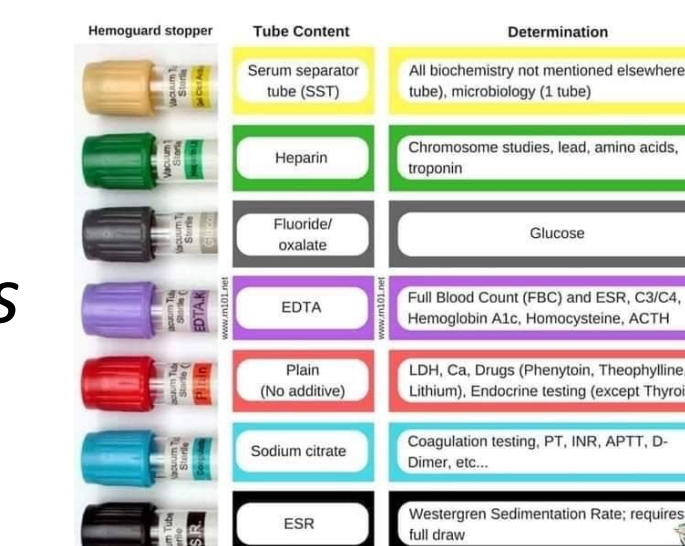


Figure 1. Different Colored-Tubes and Their Additives

#### • Specimen Processing Services Aliquoting:

This bench is responsible for decanting specimens before testing. We receive urine samples directly from the urine specimen box, blood in tubes from specimen receiving department, spin send-outs and refrigerate and freeze samples for courier pickup.

#### • Bone Marrow Procedures:

Bone marrow is a soft, spongy tissue found inside certain bones in your body, such as the hip and thigh bones.

Bone marrow aspirate and biopsies are extracted to show at which phase blood cells are. That determines abnormalities in cell morphology, or at which stage a disease is.

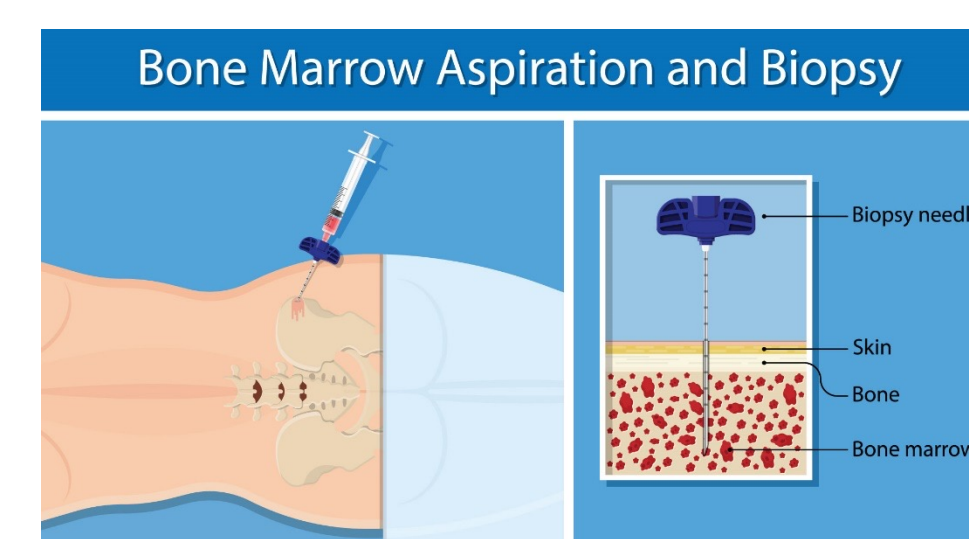


Figure 2. Bone Marrow Procedure Illustration

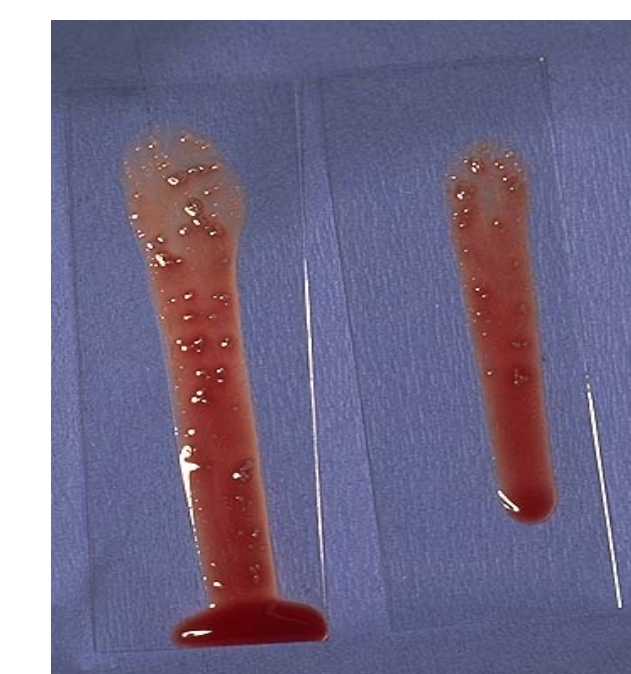


Figure 3. Bone Marrow Aspirate Spicules



Figure 4. Capillary Micropipettes with Hematocrit Tubes

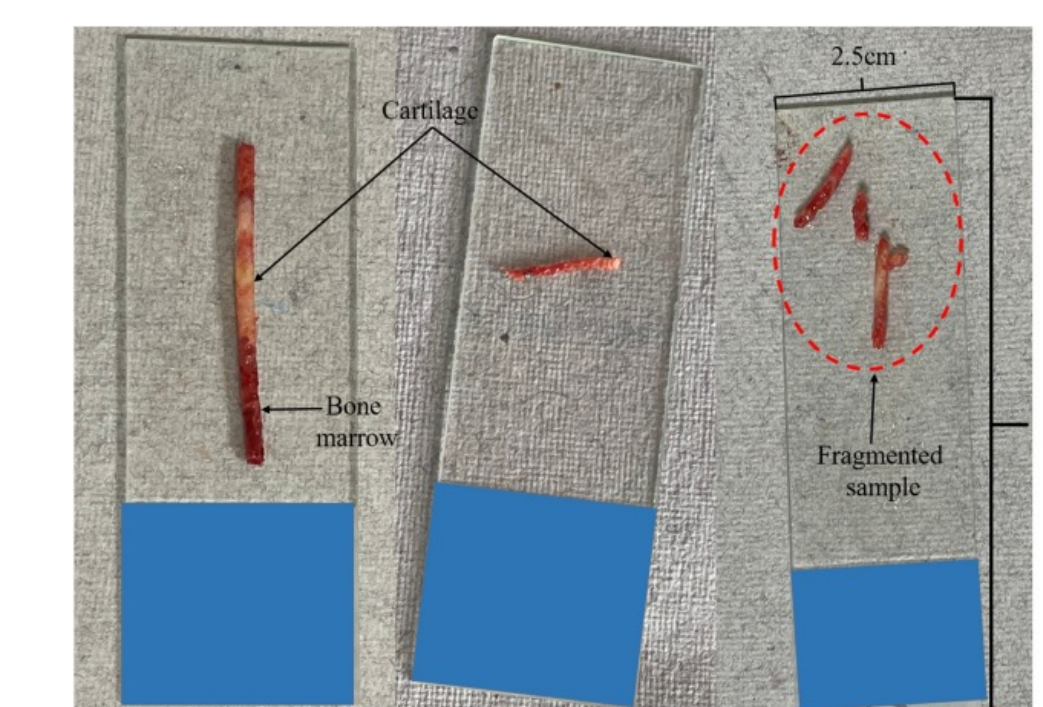


Figure 5. Bone Marrow Biopsies

#### • Clinical Testing (Hematology and Chemistry):

Hematology testing includes complete blood count (CBC) and differentials. Chemistry testing includes coagulation tests, urinalysis, and amino assays.

#### • Transfusion Services:

We receive platelets, RBCs and cryoprecipitate from UW. A swirling effect is on platelets is due to the disc-shaped nature of healthy platelets.



Figure 6. RBCs and Platelets

### My Amazing Experience

In the Alliance Lab at Fred Hutch, I have acquired a great knowledge of processing different types of specimens, grasping medical concepts, and the behind-the-scene processes of blood testing.

What I enjoyed most about my entire summer experience was the helpfulness of my mentor and the friendliness of my peers at the lab. It was an amazing experience to be among these skilled people who make a difference every day whether by processing samples or by assisting with bone marrow procedures. It was a pleasure being in a welcoming laboratory setting at the Alliance Lab in Summer 2024.

### Acknowledgements

- **Program Manager:** Dr. Mary Grace Katusiime
- **Director of the Alliance Lab:** Jennifer Kyle-Stokes
- **Lab Manager/Mentor:** Juan Medina Izquierdo
- **Direct Mentor/Trainer:** Michelle Agcamaran

Without the help and guidance of my amazing mentors, I would not have been able to be skilled at my performance at the lab. They helped me gain a lot of skills, and I am grateful to have been an intern at Fred Hutch.