June 2024, Chris Snyder

SUMMARY OF RELEVANT EXPERIENCES

1. HEMATOPATHOLOGY SERVICE: 17 WEEKS (JUNE 2023-24)

A. Built independence in the interpretation, diagnosis, and templating of reports, for specimens: blood, bone marrow, and lymphoid tissues.

- Triaged smears, pleural fluids, and peritoneal fluids for new or atypical blasts.
- Diagnosed diseases of the blood, bone marrow, and lymphoid tissues.
- Interpreted peripheral blood smears, bone marrow aspirates, and biopsies.
- Independently wrote templated reports for sign-out
- Improved steadily and consistently over that time period
- Readily cover service as needed, totaling the equivalent of 1.5x rotations

B. Lead Tumor-Boards Style Conference

Lymphoma Conference 9/19/2023

BMT Review 11/9/2023

- Presented and effectively communicated patients' pathology with clinicians, contributing to management and care of complex patients.

C. Hematopathology Journal Club Presentation

Genomic Profiling of Myeloid Neoplasms

- Presented review article on the tradeoffs and indications for genome testing modalities according to the patient history and myeloid disease subclassification.

2. ADVANCED FLOW CYTOMETRY ELECTIVE: 12 WEEKS (2024)

- Rotated through flow benches to understand technician daily workflow
- mastocytosis panel in-service presentation
- Developed in-service presentation addressing gating issues with staff

B. In-Service Presentation: Mastocytosis Gating

- I led a review of the pathophysiology and flow cytometry of mast cells, which was part of an effort to improve lab technician mast cell gating reproducibility.

C. Case Conference Presentations Focusing on Heme

Created and delivered 30-minute case presentations to the Pathology department on the role of testing and diagnosis in disease management for the following diseases:

- IVIG Hemolysis
- SCID Flow Cytometry Testing
- Systemic Mastocytosis
- Sezary Syndrome

D. Validation and Implementation of a Flow Cytometry Assay

- Lymph10 Assay Implementation
- To identify the major lymphocyte subsets to aid the clinicians in accessing the status of a patient's immune system.
- Designed protocol for new flow panel and spearheaded implementation training for flow cytometry team.
- Ensured that guidelines for flow assay validation were appropriately applied.
- Performed statistical analysis of linearity accuracy, limit of detection and correlation.
- Validated migration, across identical machines of flow, assay, wind machines broke down.
- Gained Experience in Flow Analysis Software Platforms
    1. *Kaluza (extensive) – designed Boolean gating analysis panel aimed at reducing careless errors and raising common alerts through visual cues*
    2. *CxP – for immune-profiling analysis*
    3. *Open-Source Flow Packages (FlowJo etc.) –can process lmd files*
    4. *NAVIOS EX 10-color flow cytometers*

E. JMLR manuscript containing additional details on process (In-Progress)