

DEPARTMENT OF PATHOLOGY

Hematopathology

Course Number	CLNS 950R		Duration	4 weeks
Credit Type	<input checked="" type="checkbox"/> Clinical Elective	<input type="checkbox"/> Non-Clinical Elective	<input type="checkbox"/> Sub-Internship	<input type="checkbox"/> ICU
Available Blocks	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 6	<input checked="" type="checkbox"/> 7	<input checked="" type="checkbox"/> 8
	<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 10	<input checked="" type="checkbox"/> 11	<input checked="" type="checkbox"/> 12
	<input checked="" type="checkbox"/> 13	<input checked="" type="checkbox"/> 14		
# of Students per Rotation	<input checked="" type="checkbox"/> One	<input type="checkbox"/> Two	<input checked="" type="checkbox"/> Other: Can take a 2 nd student on some blocks	
Faculty Evaluator(s)	David R. Czuchlewski, MD			
Prerequisites	<input checked="" type="checkbox"/> All Phase II Clerkships	<input type="checkbox"/> Department specific clerkship/rotation:	<input type="checkbox"/> Other:	
Visiting Students Accepted	<input checked="" type="checkbox"/> Domestic MD	<input checked="" type="checkbox"/> Domestic DO	<input checked="" type="checkbox"/> International	<input type="checkbox"/> None
Accept Students Off-Cycle	<input checked="" type="checkbox"/> Yes – with department permission	<input type="checkbox"/> No		
Add/Drop Policy	ADD: 30 days	DROP: 30 days	Other:	
Clerkship Contact(s)	Cynthia Hart	Cahart1@salud.unm.edu	505-938-8456	

Goals and Unique Aspects:

The Hematopathology elective is intended for senior medical students who are interested in deepening their knowledge of normal and abnormal hematologic processes. The student will become an integral member of the diagnostic hematopathology team tasked with reviewing and interpreting peripheral blood smears, bone marrow biopsies, lymph nodes and tissue samples, and body fluids. The students will be responsible for all aspects of their assigned case interpretations, including correlation between clinical history, CBC data, and microscopic findings, and they will generate interpretive diagnostic reports to be entered into the medical record. At the completion of the elective, the student will have a thorough grounding in the basics of blood and bone marrow interpretation. This elective will be useful for all students who expect to routinely interpret CBC abnormalities in their future practice, and it will be especially attractive to those with interest in hematology and/or pathology.

Objectives:

By the completion of this rotation, the student will:

1. Construct a complete differential diagnosis for routine cases of anemia (especially iron deficiency anemia, anemia of chronic disease, and megaloblastic anemia) and make a definitive diagnosis in cases of anemia using peripheral blood smear morphology, CBC data, clinical history, and other laboratory findings.
2. Perform an accurate differential count on a normal peripheral blood smear.
3. Discriminate between a blast and a reactive leukocyte.
4. Specify common causes of neutrophilia, neutropenia, and thrombocytopenia.
5. Compose accurate, timely, and complete diagnostic reports for peripheral blood smears with minimal faculty guidance.
6. Describe the process of flow cytometric analysis, and identify features of chronic lymphocytic leukemia, acute myeloid leukemia, and acute lymphoblastic leukemia based on patterns of expression of CD19, CD3, CD4, CD5, CD8, CD10, surface immunoglobulin, CD34, and CD33.
7. Summarize the principle of immunohistochemistry and recognize the utility of key antigens (CD20, CD3, CD34) in tissue diagnosis of hematologic neoplasms.
8. Produce an extended summary report of an interesting case that shows evidence of an integrated diagnostic approach, to include findings related to clinical history, morphology, flow cytometry, and genetics.

Responsibilities:

The student will assume responsibility for the diagnosis of peripheral blood smears submitted to the lab for review by the hematopathology service. The student will gather clinical information from the electronic medical record and/or direct discussion with the clinical team; perform a morphologic review to identify key diagnostic findings; verify the CBC data; and synthesize the available information to create a preliminary diagnostic impression. After presenting the case to and reviewing the case with the

attending faculty member, the student will prepare a written report to be reviewed by the faculty member and entered into the patient's medical record. The student will communicate the findings to the clinical team in selected cases. According to student interest and ability, students may also assume similar responsibility for selected flow cytometric studies and bone marrow biopsies in the final two weeks of the elective.

Supervision and Teaching:

All cases are reviewed as a team that will include: the attending faculty member, a hematopathology fellow, and a pathology resident, as well as the rotating medical student. All aspects of the cases will be reviewed together. The faculty member will review and edit the student's diagnostic reports for accuracy.

Evaluation:

The student will be assessed according to the following criteria:

1. Participation and performance during the case review and sign-out process, as assessed by the attending faculty according to a pre-established rubric (50% of final grade)
2. Submission of an exemplary diagnostic patient report, authored by the student, assessed for completeness and accuracy according to a pre-established rubric (10% of final grade)
3. Performance on an end-of-rotation multiple choice question exam based on specific learning objectives (20% of final grade)
4. Creation of a 1,000 word educational write-up of an interesting case, to be assessed according to a pre-established rubric (20% of final grade)

Additional Information:

Specific resources will be provided to assure that the student meets the learning objectives, including directed readings on basic topics in hematology.