

University of Washington Pathology Residency Program Anatomic Pathology Goals and Objectives

General Program Philosophy

The program educates residents in both anatomic pathology and laboratory medicine. The anatomic pathology program focuses on skills and methodologies associated with diagnostic surgical pathology, cytopathology, and autopsy pathology. The laboratory medicine program focuses on skills and methodologies associated with chemistry, microbiology, immunology, hematology, coagulation, and blood banking. Both programs encourage residents to take part in ongoing teaching and research activities.

Residents must be capable of assimilating a large amount of basic information. This includes an understanding of basic human biology, i.e., an understanding of normal and abnormal human structure - function interactions at all levels of biologic organization during all stages of life, including information considered to be basic to the general practice of medicine.

Residents must be capable of practical problem solving. This involves the thoughtful use of general information in evaluating the significance of specific observations made on specific patients and/or patient specimens. It also involves recognition of the uncertainty that abounds in medicine and the intellectual honesty to admit, "I do not know what this observation means," as an important step in an individual's educational process.

First and Second Year Autopsy Goal

The rotation provides training that will enable residents to perform an autopsy on a deceased patient (adult, child, infant and fetus) and elucidate the disease process/processes responsible for clinical deterioration and death.

Autopsy Objectives

Medical Knowledge & Patient Care

- Learn how to extract pertinent information from existing medical records in order to reconstruct, as accurately as possible, the deceased patient's medical history and learn when to request information in addition to that found in existing records from the patient's clinical physician(s).
- Learn how to conduct the systematic anatomic evaluation of a deceased person, including a thorough external examination, various evisceration procedures (e.g. removal of thoracic, abdominal, and pelvic organs, removal of brain, removal of spinal cord), and dissections of the various eviscerated organ block(s).
- Know when, from the results of medical history and/or the actual autopsy procedure, additional special examinations (e.g. bones, sinus cavities, and other organ/tissues not routinely evaluated, forensic techniques) are needed and when to ask pathology staff members for help with these special procedures.
- Know how, using existing medical history and/or anatomic observations, to select appropriate samples of normal and diseased tissues for microscopic studies that are likely to further elucidate the natures of the disease processes affecting the autopsied patient.
- Learn how to effectively use a microscope for evaluating the various selected histology samples.
- Learn how to weigh and consider the significance of the various observations made during autopsy procedures, how to correlate and explain specific clinical and pathologic observations, and how to reach a final understanding of the disease process(es) responsible for the clinical deterioration and death of the autopsied patient.
- Learn how to write a final report based on the understanding noted above and to do so in a thoughtful, honest, clear, concise, and timely manner.

- Learn how to communicate with clinicians before and after the autopsy about preliminary and final findings, and when to refer calls to an attending pathologist.

Practice-Based Learning & Improvement

- Learn how to use available photographic equipment to document specific anatomic observations.
- Learn effective safety procedures for prosector and others in autopsy room.

Interpersonal Communication Skills

- Learn how to summarize patient information in a clear and concise manner for oral and written presentations and how to distill the essential parts of the medical history into estimates of the likely acute mechanisms and underlying cause of death.
- Learn how to write and dictate accurate, concise, and effective descriptions of the important gross and microscopic observations.
- Learn how to organize the disparate data gathered from various evaluations of medical records, gross anatomy, and microscopic observations.
- Learn how to weigh and consider the significance of the various observations made during autopsy procedures, how to correlate and explain specific clinical and pathologic observations, and how to reach a final understanding of the disease process(es) responsible for the clinical deterioration and death of the autopsied patient.
- Learn how to write a final report based on the understanding noted above and to do so in a thoughtful, honest, clear, concise, and timely manner.
- Learn how to present any of the data gathered from the autopsy study in one or more educational conferences.

Systems-Based Practice

- Know how to examine autopsy request forms to determine whether appropriate permission for the procedure has been obtained before beginning a case.
- Know when extracted medical information suggests or requires a medical examiner consultation before proceeding with the autopsy and how to interact with the medical examiner.
- Know when and how to utilize specialized laboratory techniques (e.g. bacterial, viral and tissue culture; cytogenetics; biochemical and molecular biologic).
- Be familiar with the CAP autopsy requirements.

First and Second Year Cytopathology Goal

Provide training that will enable residents to evaluate cytology samples taken from various tissue sites by a variety of methods and make diagnostic assessments that will be used to guide the subsequent care of patients, as the outcome of the following objectives.

Cytopathology Objectives

Medical Knowledge & Patient Care

- Learn the usual methods of obtaining cytology specimens from the various tissue sites (e.g. pap smears, body fluid smears, lesion brush smears, fine needle aspirate smears), the usual methods for preparing samples for microscopic study (e.g. direct smears, cytospin smears, fixation, cell block sections, stains), and the common uses of ancillary studies (e.g. immunocytochemistry, flow cytometry).
- Learn to recognize typical or usual cellular appearances (e.g. usual epithelial, stromal, defensive, neural, and/or circulatory cell types) on the various samples derived from the various body sites and processed in the various ways.
- Learn to recognize atypical or unusual cellular appearances associated with various clinically significant non-neoplastic diseases (e.g. inflammation-induced reactive cellular changes, microbiologic pathogen identifications) on the various samples derived from the various body sites and processed in the various ways.

- Learn to recognize atypical or unusual cellular appearances associated with various clinically significant neoplastic diseases (e.g. benign, possibly malignant, and in-situ/invasive malignant) derived from the various cell populations (e.g. epithelial, stromal, defensive, neural, and/or circulatory) on the various samples derived from the various body sites and processed in the various ways.

Interpersonal Communication Skills

- Know how to write final interpretive reports that are honest, clear, concise, and timely, using conventionally accepted terminology and diagnostic schemes (e.g. Bethesda method of reporting pap smear results), and when to provide additional information and/or recommendations to patient care physicians.

Systems-Based Practice

- Gain familiarity with medical legal issues and consequences of cytologic evaluations.
- Be familiar with the CAP and CLIA cytology requirements.

First and Second Year Surgical Pathology Goal

Provide training that will enable residents to evaluate tissue samples removed from living patients and make diagnostic assessments that will be used to guide the subsequent care of such patients, as the outcome of the following objectives.

Surgical Pathology Objectives

Medical Knowledge & Patient Care

- Learn how to examine the various types of patient specimens received in the anatomic pathology lab, including:
 - Appropriate safety measures and techniques.
 - How to carefully evaluate grossly evident external features.
 - How to dissect to best view existing pathologic alterations.
- Learn the conduct of immediate frozen section examination including when such studies are warranted, how to select and prepare specific samples, how to interpret the histology observations and when to report diagnoses vs. when to defer to permanent histologic interpretations.
- Learn how to effectively use a microscope for evaluating histology samples, including:
 - When to ask for assistance from staff pathologists or consultants.
- Learn how to weigh and consider the significance of the various observations made from gross and histology studies, how to use the results to solve specific patient problems.

Practice-Based Learning & Improvement

- Learn how to examine the various types of patient specimens received in the anatomic pathology lab, including:
 - When to ask for help from staff pathologist before proceeding with potentially destructive dissections.
- Come prepared for conferences.
- Show intellectual curiosity about mistakes in judgment or diagnosis and demonstrate the ability to learn from these mistakes
- Demonstrate ongoing identification and remediation of gaps in personal medical knowledge.
- Demonstrate the ability to troubleshoot problem cases and the intellectual curiosity to follow through on results

Interpersonal Communication Skills

- Learn how to write/dictate accurate, concise, and effective descriptions of the diagnostically important gross anatomic observations, including details about specimen handling and sampling.
- Learn how to write/dictate accurate, concise, and effective descriptions of microscopic observations.

- Learn how and when to communicate with clinicians to obtain additional information, and how to effectively communicate with various attending pathologists and clinicians about specific issues arising while evaluating specific cases.
- Learn how to write/dictate final diagnostic reports that are honest, clear, concise, and timely and have some reasonable awareness of the affects these reports have on clinician understanding and selection of patient treatment regimens.
- Show ability to get along with others including ancillary personnel, clinicians and peers.
- Demonstrate good verbal and written communication skills

Systems-Based Practice

- Learn how to examine the various types of patient specimens received in the anatomic pathology lab, including:
 - How to take appropriate samples for routine histology study and when and how to take additional samples for special study methods (e.g. immediate diagnostic frozen section analyses, electron microscopy, biochemical analyses, gene analyses, mineral analyses).
- Learn how to effectively use a microscope for evaluating histology samples, including:
 - Appropriate and cost effective use of ancillary procedures (e.g. special staining, ICC, EM, RT-PCR, etc.) for elucidating relevant diagnostic details.
- Develop skills in organization and timely performance of work.
- Develop ability to judge when workload is overwhelming and ask for assistance
- Understand the regulatory agencies impact on pathology

Professionalism

- Show dependability and commitment to excellence
- Understand and adhere to relevant policies/procedures
- Share workload
- Respect patient confidentiality
- Show honesty and integrity