Goals and Objectives for the Surgical Pathology Rotation

A. The trainee will be expected to demonstrate compassionate and appropriate regard for surgical pathology specimens. This will be evaluated by interaction and feedback with faulty and staff.

B. The trainee will be expected to demonstrate medical knowledge, especially with regard to established and evolving biomedical, clinical, and pathobiological science and to demonstrate the application of this knowledge to analysis of surgical path specimens and analysis of the resultant data. This will be assessed by case discussion and analysis with faulty, as well as the in-service examinations.

C. Trainees will be expected to demonstrate practice-based learning and improvement involving investigation and evaluation of their own surgical path cases, assimilation of scientific evidence, and demonstrate improvement in the ability to work up cases. This will be evaluated by case discussion and signout with faculty.

D. Interpersonal and communication skills, including report writing, will be assessed in order to assure effective information exchange with other residents, faulty, staff, clinicians, and students. This will be evaluated by having faulty observe interactions at conferences and read and evaluate reports.

E. Trainees will be expected to manifest a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient and collegial population in order to assure professionalism. This will be assessed by regular evaluation and discussion with faculty and staff.

F. Trainees will be expected to be aware of the larger context and system of health care, have the ability to effectively call on wider resources, and provide care and practice that is optimized in the context of a systems-based practice of medicine. This will be evaluated by learning to use the Internet for appropriate resources, attend interdepartmental conferences and the in-service examination.

G. Below is a non-exhaustive listing of some the specific objectives representing only but a few of the things that residents will be expected to master and accomplish.
Specific Goals and Objectives

1. Show proficiency in the gross techniques of surgical pathology, including initial handling of surgical specimens, understand and demonstrate the general principles of gross examination.

2. Be able to accurately orient specimens, describe and measure gross lesions and select appropriate sections for microscopic evaluation.

3. Demonstrate ability to take high quality photographs of gross specimens and be able to handle appropriately specimens that require radiographic imaging.

4. Demonstrate the ability to prepare, cut and stain frozen sections of various tissue specimens in a timely manner for immediate intra-operative consultations. In addition residents are expected to be able appropriately triage specimens for ancillary specialized studies such as cytogenetics, flow cytometry, EM, etc.

5. Show ability to do “touch” or “squash” preparations for cytologic examination in certain cases such as sentinel lymph node biopsies or small brain biopsies where, because of the amount the tissue received or for other reasons, frozen section evaluation is deemed not appropriate.

6. Show proficiency in the handling and submission of small biopsy specimens for histologic processing.

7. Describe the principles/reasons for tissue fixation in the preparation of sections for light microscopic, ultrastructural or immunofluorescence microscopic evaluation.

8. Describe the process and sequence of specimen processing from specimen fixation, embedding, sectioning and staining.

9. Show knowledge and an understanding of the different fixatives, including pros and cons, used surgical pathology, the function of the different solutions used in specimen processing.

10. Enumerate potential areas of specimen contamination along the processing pathway and discuss ways of troubleshooting for any errors that may arise.

11. Distinguish between special stains, enzyme histochemistry and immunohistochemistry and be able to list examples of the more common stains used in surgical pathology.
12. Know the special stains used for the diagnosis of various infectious organisms (such fungal, mycobacterial, bacteria, etc).

13. Demonstrate ability to generate meaningful antibody panels that are appropriate for the diagnosis and distinction of various malignant neoplasms.

14. Be able to accurately describe, using appropriate terminology, light microscopic features of neoplasms and other disease entities.

15. Be able to generate meaningful differential diagnoses in tumor diagnoses.

16. Show ability to perform interpretation of (with supervision) intra-operative frozen section materials and effectively communicate the results to the surgeons.

17. Generate an appropriate surgical pathology report, using correct terminology and incorporating all pertinent histologic parameters that are necessary for tumor staging or patient management.

18. Be able to classify disease processes and neoplasms of different organ systems in the adult patient.

19. Classify, list and discuss the diagnostic features of the different skin dermatoses (see detailed goals & objectives of Dermatopathology).

20. List and discuss the various tumor-like and tumors of the skin (see detailed Dermatopathology goals & objectives).

21. List, discuss and show ability to diagnose (microscopy) the different kinds of nevi, in-situ melanoma and invasive melanoma (see detailed Dermatopathology goals & objectives).

22. Know and be able to identify the common head and neck and oral tumors.

23. Classify and enumerate the diagnostic features of benign and malignant salivary gland tumors.

24. Classify and discuss the microscopic features of sino-nasal polyps, benign and malignant tumors.

25. Be able to diagnose microscopically the common benign and malignant tumors of the respiratory system, including the larynx, trachea, lungs and pleura (such as squamous cell carcinoma, small cell carcinoma, adenocarcinoma, bronchioloalveolar adenocarcinoma, carcinoid tumor, mesothelioma, pulmonary harrmatoma, etc).
26. Classify the non-neoplastic diseases of the lungs, including interstitial diseases and other conditions such as bronchiolitis obliterans, Wegener’s granulomatosis, polyarteritis nodosa, pulmonary sarcoidosis etc.

27. Enumerate and discuss the neoplasms of the mediastinum, including the thymus.

28. List the different types and diagnostic criteria of thyroid neoplasms.

29. Indicate the diagnostic challenges for the diagnosis of follicular thyroid lesions.

30. List and discuss the diagnostic features of the inflammatory lesions of the thyroid gland, including Hashimoto, granulomatous thyroiditis and others.

31. Discuss the features of parathyroid hyperplasia and tumors.

32. Classify and discuss the diagnostic criteria of breast cancer.

33. Know the breast cancers of special type.

34. Know the grading system of breast carcinoma.

35. List and discuss the common non-neoplastic diseases of the breast.

36. List and describe the diseases of the esophagus, including infectious and malignant processes.

37. Describe the diagnostic histologic criteria of Barrett’s esophagus, dysplasia arising from metaplastic mucosa and discuss the risk for the development of invasive adenocarcinoma.

38. List and describe the histologic features of the different kinds of chronic gastritis, including atrophic gastritis.

39. Describe the different subtypes of gastric neoplasms, including lymphomas, gastric stromal cell tumors and others. Residents are expected to show an understanding of the role of H. Pylori infection in the evolution of some gastric tumors.

40. Describe the histologic features of colonic adenocarcinoma, carcinoid tumors, and small and large intestinal stromal tumors.

41. Classify and describe the microscopic features of the inflammatory bowel diseases, including Crohn’s, Ulcerative colitis, microscopic colitis, and others.

42. List and describe other colitides including ischemic, infectious, drug related and others.
43. Classify and describe the pathologic features of pancreato-biliary neoplasms.

44. Enumerate and describe the distinguishing microscopic features of the different forms of viral and non-viral hepatitis, including neonatal hepatitis.

45. Describe the features of metabolic or inherited forms of liver diseases, including Wilson’s, hemachromatosis, alpha-1 anti-trypsin deficiency and others.

46. Give a classification and/or cause of liver cirrhosis.

47. Indicate and describe the different types of benign and malignant liver neoplasms, including hepatocellular adenoma, focal nodular hyperplasia, hepatocellular carcinoma, hepatoblastomal, and other harmatomatous or tumor-like lesions of the liver.

48. Give a classification of the non-neoplastic kidney diseases (see goals & objectives for the medical kidney diseases).

49. List and describe the features of renal neoplasms, including renal cell carcinoma and the various subtypes, oncocytoma, adenoma and others (for pediatric pathology: see goals & objectives for Pediatric Pathology).

50. List and describe the benign and malignant non-germ cell tumors of the gonads (female and male).

51. Give a classification and describe the diagnostic and distinguishing features of germ cell tumors (seminomatus and non-seminomatus).

52. Discuss the features of urothelial neoplasms, including urachal and adenocarcinoma arising out of metaplastic mucosa.

53. Be able to classify and describe the microscopic features of prostate, para-testicular and penile tumors.

54. Discuss the features of dysplastic lesions, invasive squamous cell carcinoma and adenocarcinoma of the uterine cervix, including the role of HPV infection.

55. Describe the tumors of the uterine endometrium and myometrium.

56. Be able to identify and describe the microscopic features of the adrenal gland and paraganglia tumors, including adreno-cortical tumors and pheochromocytoma and related to tumors.

57. Know the most recent classification of lymphomas, including extra-nodal lymphomas and lymphoma that involve the spleen, bone marrow and other organ...
sites. Discuss the role of ancillary studies in the diagnosis and management of lymphomas.

58. Enumerate and describe the microscopic features of the different types of soft tissue neoplasms, both benign and malignant. Know the grading schemes for soft tissue sarcoma.

59. Give a classification of the disease entities of bones and joints, including inflammatory diseases, degenerative conditions and tumors.

60. List and discuss the pathologic entities of the heart and the vascular system.

61. List and discuss the neoplasms of the eye and ocular adnexa.