GOALS AND OBJECTIVES
BREAST PATHOLOGY

LEVEL: PGY2, PGY3, PGY5

- A number of these rotations are introductory in nature, as they are major subspecialties, and are followed by two more blocks in PGY-3, during which knowledge is extended and fortified.

- As described above, the staff pathologist is expected to provide an appropriate volume of cases for review based on the PGY-2 resident’s level of training in these areas with the understanding that greater responsibility and workload will be taken on in PGY-3.

- Additionally, while PGY-2 residents are expected to be present at all interdisciplinary rounds in these major subspecialties, they are not expected to present cases while a more senior resident is on service.

- Staff pathologists are required to be present at all interdisciplinary rounds during which a resident is presenting, particularly for PGY2.

- During the PGY-3 year, while completing the 2-block rotations in the major areas of subspecialty, the resident is expected to prepare for and present cases at all interdisciplinary rounds, and, with staff pathologist supervision and guidance, answer questions and take part in discussion during said rounds.

- Furthermore, the PGY-3 resident is expected to complete any end-of-rotation presentations required for the major subspecialty rotations during this year.

- The PGY-5 year is one of senior leadership and the resident should be able to assume responsibility for organizing the service and supervising junior residents and students. The resident should have mastery of the information contained in standard texts and be prompt in using the literature to solve specific problems. The resident will be responsible for presentations at conferences and for teaching junior residents and students on a routine basis. The PGY 5 should begin to have an understanding of the role of the practitioner in an integrated health care delivery system and to be aware of the issues in health care management facing patients and physicians.
**MEDICAL EXPERT**

- Demonstrate a working knowledge of the anatomy and histology of the breast
- Demonstrate skill in the gross dissection and sampling of breast biopsies, breast excisions including needle localized specimens, mastectomies, lymph node dissections and sentinel node biopsies
- Demonstrate ability to deal with difficult gross specimens i.e. specimens requiring further x-ray, occult tumors, poorly oriented specimens
- Demonstrate proficiency in the interpretation of breast needle core biopsies, and knowledge of lesions that cannot be adequately assessed in a limited biopsy sample
- Acquire proficiency in the interpretation of breast excisions and ability to prepare accurate comprehensive reports
- Acquire knowledge of the spectrum of benign breast lesions including atypical hyperplasia, and the associated risk implications
- Acquire knowledge of clinically important prognostic/predictive factors for invasive and in situ breast carcinoma
- Acquire knowledge in the use and interpretation of immunohistochemistry pertinent to breast pathology, including hormone receptors, Her2/neu markers and myoepithelial markers.
- Acquire knowledge in the use and interpretation of Her2/neu FISH for invasive breast cancer
- Acquire knowledge of the spectrum of stromal breast lesions

**COMMUNICATOR/COLLABORATOR**

- Demonstrate the ability to function at a junior staff pathologist level at breast tumor rounds by reviewing cases, presenting the cases at rounds and responding to questions regarding the cases
- Demonstrate the ability to teach aspects of breast pathology at multidisciplinary rounds and teaching sessions
- Gain an understanding of clinical aspects of breast disease, particularly in breast tumor board
MANAGER

- Understand the importance of quality control and quality assurance measures for ER, PR and Her2/neu immunohistochemistry for breast cancer, including preanalytical, analytical and postanalytical variables
- Understand the value of proficiency testing for immunohistochemistry.

HEALTH ADVOCATE/PROFESSIONAL

- Understand the importance of turn-around time for diagnostic breast biopsies due to the high level of stress experienced by patients with symptomatic or screen detected breast lesions
- Understand the implications of a diagnosis of invasive or in situ breast carcinoma for patients
- Know when to appropriately consult an expert in breast pathology
- Know the clinical significance of benign and atypical proliferative breast lesions and the associated risk implications

SCHOLAR

- Consider conducting a research project or case report based on breast pathology material
- Review the pertinent literature relating to advances in breast pathology (i.e. sentinel lymph node assessment, hormone receptor IHC, Her2/neu testing, columnar lesions, molecular profiling of breast tumors)

INSTRUCTIONAL TOOLS:

The resident will meet with the subspecialty group director and go over this document and the overall aspects of the rotation \textit{the day before the rotation starts}.

1. GROSSING:

- At least two cases per week

- The resident should gross at least the following specimen types:
  - PGY2 level: Three total mastectomies, Three lumpectomies, Two core needle biopsies, Two vacuum assisted biopsies
At least one case of post neo-adjuvant
At least one case of DCIS with mapping

PGY3-5 level: Three total mastectomies
Three lumpectomies
Two breast reductions

- Resident will complete a “grossing log” (see table at the end). The resident will review the slides of the case that he/she grossed and review it with the attending pathologist assigned to the case. The attending will review the gross description and sign the log sheet.

2. MICROSCOPY:

- The resident will contact the attending pathologist that is scheduled to sign cases with, the day before the sign out day, in order to arrange time of sign out and distribute cases

- Retrieve pertinent clinical and radiologic information from the electronic medical records system for every case and integrate it with the pathologic findings in order to achieve a correct diagnosis.

3. PROGNOSTIC MARKERS:

   learn how to properly interpret immunohistochemistry for breast prognostic markers ER, PR, HER2Neu

   - learn indicators for F(ISH)

   - learn how to interpret F(ISH)

4. ROUNDS:

PGY2 level: Resident is expected to attend but not present at interdisciplinary rounds (on Mondays at 12:00 pm if possible since conflicts with academic day, and on Tuesdays at 8:00 am) and the consensus conference (on Fridays at 10:00 am)

PGY 3-4: Resident is expected to attend interdisciplinary and consensus conferences and present the cases. This implies reviewing the cases with the pathologist in charge beforehand and organizing the presentation in the appropriate format.

5. EVALUATION: The resident will be given an evaluation based on the objectives and PGY level milestones and practical examination at the end of the rotation.

RECOMMENDED READING:
1. Sternberg’s Diagnostic Surgical pathology
2. Rosen’s Breast Pathology
3. “BIOPSY INTERPRETATION OF THE BREAST” by Stuart Schnitt and Laura C. Collins
4. Travassolli: Pathology of the Breast
5. WHO Classification of Tumours of the Breast – 2012.
Table. Grossing log
Resident ______
Rotation ______ Dates ______

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<tr>
<th>DATE</th>
<th>CASE NUMBER</th>
<th>CASE TYPE</th>
<th>CASE REVIEWED BY (PATHOLOGIST NAME AND SIGNATURE)</th>
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<tbody>
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<td>Core needle Bx</td>
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