Multidisciplinary Breast Pathology
Advanced Learning Series

MANUAL

This Multidisciplinary Breast Pathology manual is current as of February, 2020. Information is subject to change.
OVERVIEW

Congratulations on your desire to find out more about the CAP’s Multidisciplinary Breast Pathology Advanced Learning Series! This manual will address your questions regarding program eligibility, design, and requirements for obtaining your MBP Certificate of Completion.

The CAP created the MBP Advanced Learning Series for pathologists with intermediate or higher skill level in breast pathology. As a result of completing the MBP Advanced Learning Series program, qualified program participants will be able to:

- Understand the implications of findings from the major breast imaging modalities, and correlate these findings with clinical and histologic information in order to provide appropriate recommendations for patient management and additional diagnostic steps when needed.
- Apply the rationale and clinical goals for breast conservation to the pathologic evaluation of breast specimens and provide the information necessary to ensure a woman receives the appropriate treatment.
- Explain and implement best practices in breast pathology: specimen handling, assay criteria and selection, process management, and remediation of test performance issues in support of optimum patient care.
- Interpret and validate breast predictive factors test results for cases representing all levels of complexity, integrating the test results with clinical and morphologic findings.
- Communicate breast histology results and patient treatment implications to clinicians, multidisciplinary health care teams, and patients proactively and collaboratively.

To participate in the MBP Advanced Learning Series, please complete the registration from and pay registration fee. Participants will receive enrollment confirmation within two weeks of when the form was received.

Read on to learn how the MBP Advanced Learning Series provides you with the opportunity to learn the new skills and knowledge required to provide excellent patient care!

Note: The CAP Advanced Learning Series are intended to be learning activities. Completion of this program alone does not necessarily indicate competence. The CAP does not endorse, guarantee, or warrant, and expressly disclaims, any and all liability for the job performance of physicians participating in the program.
# TABLE OF CONTENTS

## OVERVIEW
- Program Purpose.................................................................................................................. 4
- Program Elements .................................................................................................................. 5

## CURRICULUM
- Accreditation .......................................................................................................................... 6
- Accessing MBP Advanced Learning Series Online Activities .................................................. 7
- Online Instructions .................................................................................................................. 7
- Technical Requirements ........................................................................................................... 7
- MBP Advanced Learning Series Online Activities ............................................................... 8
- Faculty-led Workshop ............................................................................................................. 14
- Workshop Agenda .................................................................................................................. 16

## PROGRAM REGISTRATION
- How to Register ....................................................................................................................... 17
- Registration Fees .................................................................................................................... 17
- Advanced Learning Series Program Completion ..................................................................... 17
- Cancellation Policy ................................................................................................................. 17
- Withdrawal and Refund Policy ............................................................................................... 17
- Additional Participation Information ...................................................................................... 18
- QUESTIONS? .......................................................................................................................... 18

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Program Purpose

The College of American Pathologists (CAP) is the leading organization of board-certified pathologists, serving patients, pathologists, and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine. The CAP seeks to create new and enhanced roles for the pathologist over the next generation, as well as greater recognition for pathologists as physicians actively involved on the patient care team. The MBP Advanced Learning Series directly contributes to the College’s vision of transforming the role of the pathologist as a leading health care provider in a practical, coordinated, and systematic manner.

The MBP Advanced Learning Series facilitates successful patient management treatment of breast cancer patients by ensuring pathologists maximize their role on the patient care team. This not only requires the integration of pathologic findings with the entire clinical picture, but it also requires an understanding of the treatment implications of these results and a participation in an active dialogue with multidisciplinary team members to support patient management throughout the entire treatment process. The MBP Advanced Learning Series focuses on providing and equipping pathologists with practical skills, tools, and techniques that they can implement in their laboratories in order to ensure more effective results for patients as well as to comply with the new ASCO-CAP guidelines. Additional constituencies benefit from the program as well:

- **Laboratories and pathology departments/groups** – It is anticipated that some laboratories and pathology groups will directly purchase the program on behalf of an employed/contracted pathologist. Laboratories and pathology groups who do so will benefit from having increased confidence in the oversight of their breast clinical management, including imaging and treatment, and from increasing the visibility of these programs to others.

- **Referring clinicians, tumor boards, and multidisciplinary health care teams** – The availability of one or more pathologists who have completed the MBP program is a key factor in assuring other health care providers that these pathologists have a comprehensive understanding of breast cancer management.

- **Most importantly, the patients** – Likewise, the availability of one or more pathologists who have completed the program in the health care setting provides patients assurance that their test results are accurate. Given test accuracy, patients can feel confident that the diagnosis as well as the clinician’s treatment decisions will also be accurate and cost effective.
Program Elements

The CAP designed the MBP Advanced Learning Series for pathologists with intermediate or higher skill level in breast pathology. Participants who will most benefit from the breast pathology program will include pathologists who have reviewed cases, attended tumor boards, and participated in multidisciplinary conferences. Learning programs are most effective when targeted to a particular experience base. Setting prerequisites is a common method for targeting education programs.

The curriculum consists of six online activities followed by a 1.5-day workshop (23.25 CME/SAM hours).

- The online curriculum consists of six CME/SAM activities (11.25 CME/SAM hours). This curriculum should be completed prior to attending the MBP Workshop. All online activities will be available to participants at least one month prior to the workshop.
- The MBP Workshop is a 1.5-day educational experience led by a team of expert faculty. The online activities are prerequisites to attending the workshop.
- Please refer to the MBP Advanced Learning Series Curriculum section of this document for information about each activity.
- Please refer to the MBP Workshop agenda for the workshop schedule.

See cap.org/learning for the current workshop schedule.

Participants who successfully complete all MBP Advanced Learning Series elements will receive a Certificate of Completion.
The MBP Advanced Learning Series curriculum focuses on providing pathologists with the knowledge and skills needed to be a vital member of the patient care team. The CAP’s MBP Advanced Learning Series curriculum is organized and summarized below by two delivery modalities: online and faculty-led. For activity sequence, please refer to the MBP Advanced Learning Series Workshop Agenda section.

Accreditation
The College of American Pathologists (CAP) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Accreditation in Canada
The online courses in this program are Accredited Self Assessment Program (Section 3) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, approved by the Canadian Association of Pathologists - Association Canadienne des Pathologistes. The maximum number of CPD credits to be claimed is specific to each course. Remember to visit MAINPORT to record your learning and outcomes.
Accessing MBP Advanced Learning Series Online Activities

The following online activities are available at least one month prior to the Workshop. Upon registration, these activities will be added to your CAP Learning Transcript. Descriptions for each online activity follow this listing. Clicking on an activity title navigates directly to the description.

- **Diagnosing and Classifying Hyperplasia, Atypical Hyperplasia, and Low-Grade DCIS** (1.25 CME/SAM)
- **Understanding Breast Imaging Terminology** (2.5 CME/SAM)
- **Use of Immunohistochemistry in the Diagnosis of Breast Lesions** (1.25 CME/SAM)
- **2018 HER2 Focused Update** (1.25 CME/SAM)
- **Invasive Breast Cancer and Risk of Recurrence Testing** (1.5 CME/SAM)
- **Getting Your Message Across: Effective Communication Strategies** (3.5 CME/SAM)

Online Instructions

Participants must establish a CAP Web account in order to access and complete the online training and cognitive assessment. If you do not have an individual Web account, go to cap.org, then select the Log In/Register button and complete and submit the requested information.

Upon registration, the online activities will be added to your CAP Learning Transcript. To access,

1. Go to www.cap.org and click on LOG IN on the upper right hand corner and login with your user id and password.
2. Click on the LEARNING Tab and then click on the IN PROGRESS Learning Tab
3. Click the title of the activity you would like to access then click Resume.
4. On the Activity Overview tab, scroll to the bottom of the page to click the ACCEPT button and then click the Continue button.

Technical Requirements

Most common operating systems are enabled to run CAP activities. The following systems support the activities:

- Operating system: Windows (Vista, Windows 7, Windows 8, Windows 10), Mac IOS
- Browser version: Internet Explorer 10.x and newer, Firefox, Chrome, Safari
- Pop-up blockers must be turned off to complete CAP activities.
MBP Advanced Learning Series Online Activities

Diagnosing and Classifying Hyperplasia, Atypical Hyperplasia, and Low-Grade DCIS

Credits: 1.25 CME/SAM

CME Category 1: The CAP designates this internet enduring materials educational activity for a maximum of 1.25 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity meets the American Board of Pathology's (ABP) Maintenance of Certificate (CC) requirements for Self-Assessment Modules (SAM).

SAM: Five-question SAM

CC Categories: Medical Knowledge, Patient Care

Breast cancer is a morphologically and clinically diverse disease. The successful treatment for the patient relies on an accurate diagnosis of the morphological changes. In this activity, you will learn to distinguish usual ductal hyperplasia from atypical ductal hyperplasia and low-grade ductal carcinoma in situ (DCIS), as well as flat epithelial atypia (FEA) from various columnar cell lesions. You will also learn the clinical significance and the current management of these diagnoses.

Objectives

- Distinguish usual ductal hyperplasia from atypical ductal hyperplasia and low-grade ductal carcinoma in situ (DCIS).
- Distinguish flat epithelial atypia from various columnar cell lesions.
Correlating the histologic and radiographic findings is essential to ensure that the abnormality identified by imaging studies has been properly evaluated. This activity will focus on common breast imaging terminology and the application of mammography, ultrasound, and MRI imaging modalities used in evaluating breast lesions. Faculty will reference imaging studies of the most common breast abnormalities throughout the activity. You will also have the opportunity to complete review questions to check your understanding of the material.

Objectives
- Understand common terminology associated with major imaging modalities (mammography, ultrasound, and MRI).
- Recognize BI-RADS® classification and nomenclature.
MBP Advanced Learning Series Online Activities, cont’d

Use of Immunohistochemistry in the Diagnosis of Breast Lesions

Credits: 1.25 CME/SAM

CME Category 1: The CAP designates this internet enduring materials educational activity for a maximum of 1.25 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity meets the American Board of Pathology’s (ABP) Maintenance of Certificate (CC) requirements for Self-Assessment Modules (SAM).

SAM: Five-question SAM

CC Categories: Medical Knowledge, Patient Care

Immunohistochemical studies are increasingly being used to aid in the diagnostic evaluation of breast lesions. The activity will emphasize potential pitfalls in interpretation and will discuss both common as well as less recognized (but often more challenging) sources of diagnostic error. You will learn correlative morphological features to help you interpret confusing or indeterminate immunohistochemical results. You will also gain an understanding of the appropriate settings in which these immunohistochemical studies may be diagnostically helpful and an appreciation of their uses and limitations in daily practice.

Objectives

• Interpret commonly used immunohistochemical studies.
• Recognize potential interpretative pitfalls.
• Utilize correlative morphologic features.
2018 HER2 Focused Update

Credits: 1.25 CME/SAM

CME Category 1: The CAP designates this internet enduring materials educational activity for a maximum of 1.25 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity meets the American Board of Pathology’s (ABP) Maintenance of Certificate (CC) requirements for Self-Assessment Modules (SAM).

SAM: Five-question SAM

CC Categories: Medical Knowledge, Patient Care

In 2018 the American Society of Clinical Oncology and the College of American Pathologists developed a focused update on human epidermal growth factor receptor 2 (HER2) testing in breast cancer. The focused update endorses the 2013 HER2 testing guidelines while addressing outstanding questions related to HER2 testing. It focuses on specific clinical topics that have been raised by the clinical community and in the literature since the publication of the 2013 guidelines. This activity addresses each of the clinical questions and includes clinical case studies that illustrate the practical application of what has been proposed in this update.

Objectives

• Describe the purpose of the 2018 HER2 focused update.
• State the most appropriate definition for IHC2+ (IHC Equivocal).
• Clarify if HER2 testing must be repeated on a surgical specimen if initially negative test on core biopsy.
• Explain if invasive cancers with an HER2/chromosome enumeration probe 17 (CEP17) ratio of ≥2 but an average HER2 copy number of <4.0 signals per cell should be considered ISH positive.
• Explain if invasive cancers with an average HER2 copy number of ≥6.0 signals per cell but a HER2/CEP17 ratio of <2.0 should be considered ISH positive.
• Explain what is the appropriate diagnostic workup for invasive cancers with an average HER2 copy number ≥4.0 but <6.0 signals per cell and an HER2/CEP17 ratio <2.0 and initially deemed to have an equivocal HER2 ISH test result.
Invasive Breast Cancer and Risk of Recurrence Testing

Credits: 1.5 CME/SAM

CME Category 1: The CAP designates this internet enduring materials educational activity for a maximum of 1.5 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity meets the American Board of Pathology’s (ABP) Maintenance of Certificate (CC) requirements for Self-Assessment Modules (SAM).

SAM: Six-question SAM
CC Categories: Medical Knowledge, Patient Care

Genomic testing for breast cancer recurrence risk has become an important part of clinical breast cancer care. This course provides an overview of risk of recurrence testing used in the diagnosis and treatment of invasive breast cancer. Statistics on cancer recurrence and clinical outcomes with chemotherapy, including data from the TAILORx trial, are reviewed. The course also provides the value and benefits of risk of recurrence testing, as well as how to determine which patients are good candidates for this testing. The different types of multigene assays and distinctions between them are reviewed, as well as an overview of IHC and protein profiling of cancer. The course includes ASCO and NCCN clinical practice guidelines for use of biomarkers to guide decisions on adjuvant systemic therapy for women with invasive breast cancer, and discusses the issues and concerns that continue to exist around risk of recurrence testing.

Objectives

• Define risk of recurrence testing.
• Describe the value and benefits of risk of recurrence testing.
• Identify several of the commercial multigene assays available and some distinctions between them.
• Explain which patients are good candidates for risk of recurrence testing and how to make this determination.
• Explain when and how the application of selective antibody panels and routine IHC can be used to predict clinical behavior and outcomes in subsets of breast cancer patients.
• Identify the clinical practice guidelines for use of biomarkers to guide decisions on adjuvant systemic therapy for women with invasive breast cancer.
• Explain some of the current issues and concerns surrounding risk of recurrence testing for breast cancer patients.
MBP Advanced Learning Series Online Activities, cont’d

Getting Your Message Across: Effective Communication Strategies

Credits: 3.5 CME/SAM

CME Category 1: The CAP designates this internet enduring materials educational activity for a maximum of 3.5 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity meets the American Board of Pathology's (ABP) Maintenance of Certificate (CC) requirements for Self-Assessment Modules (SAM).

SAM: Fifteen-question SAM
CC Categories: Medical Knowledge, Patient Care, Interpersonal and Communication Skills

This activity provides a solid introduction to the basics of interpersonal communication and consists of the following high-level topics: communication basics, speaking, listening, collaborating, and adapting. Models and elements of communication and feedback are examined. Strategies for building and maintaining rapport and resolving conflicts through effective communication are reviewed; including techniques for communicating with credibility, listening to others, disclosing errors, consulting clinical colleagues, and dealing with difficult conversations. Throughout the activity, interactive scenarios provide realistic practice for implementing key characteristics of effective communication.

Objectives

• Identify the key communication roles played by the laboratory director.
• Listen actively to what others are saying to ensure complete understanding of the situation.
• Use clear, direct language to establish credibility and state your point of view.
• Apply communication strategies to effectively collaborate, influence, and manage resistance from others.
• Adapt your communication strategy to the needs of the audience and the situation.
Faculty-led Workshop

Length: 1.5 days

Credits: 12.0 CME/SAM

CC Categories: Medical Knowledge, Patient Care

Objectives

- Understand the implications of findings from the major breast imaging modalities, and correlate these findings with clinical and histologic information in order to provide appropriate recommendations for patient management and additional diagnostic steps when needed.
- Explain and implement best practices in breast pathology: specimen handling, assay criteria and selection, process management, and remediation of test performance issues in support of optimum patient care.
- Evaluate and interpret breast predictive factors test results following the ASCO-CAP Guidelines for cases representing all levels of complexity, integrating the test results with clinical and morphologic findings.
- Explain breast cancer treatment options and their associated toxicities, cost implications, and efficacy as indicated by test results.

The workshop includes multiple opportunities to discuss strategies needed by breast pathologists for handling difficult cases and to receive feedback from expert faculty. Workshop modules include:

Multidisciplinary Breast Pathology: The Oncologist’s Viewpoint
You hear directly from an oncologist about how breast predictive factors are used to guide treatment decisions and why pathologists are important to the process.

BPF Test Interpretation and Patient Treatment Implications: Tumor Board Discussion
In this session, you participate in a tumor board simulation that includes real patient cases, covering a variety of breast cancer clinical scenarios, where you help determine appropriate next steps for each case. You have ample opportunity to ask questions about specific interpretation challenges you face, and to learn more about the ASCO-CAP Guidelines on ER/PgR and HER2 interpretation from faculty experts.

ER PgR and HER2 Overview
Breast cancer is a morphologically and clinically diverse disease. ER/PgR and HER2 are known breast cancer markers that are used to identify subsets of patients for targeted therapy. This approach to clinical management requires an accurate assessment of these markers to help ensure that the most appropriate patients are treated. In this activity, you explore the therapeutic implications of accurate testing on breast cancer care.

Challenging Cases
A number of difficult BPF cases are presented, including clinical information and test results as well as associated images for each case. You will be prompted to answer questions, such as the diagnosis or next steps for the case, and be able to view your colleague’s responses to these questions. The faculty expert will then provide his insights as well as “pearls of pathology” takeaways for each case.
Faculty-Led Workshop, cont’d

Breast cancer is a morphologically and clinically diverse disease. ER/PgR and HER2 are known breast cancer markers that are used to identify subsets of patients for targeted therapy. This approach to clinical management requires an accurate assessment of these markers to help ensure that the most appropriate patients are treated. In this activity, you explore the therapeutic implications of accurate testing on breast cancer care. You hear directly from an oncologist about how breast predictive factors are used to guide treatment decisions and why pathologists are important to the process. You participate in a tumor board simulation that includes real patient cases, covering a variety of breast cancer clinical scenarios, where you help determine appropriate next steps for each case. You have ample opportunity to ask questions about specific interpretation challenges you face, and to learn more about the ASCO-CAP Guidelines on ER/PgR and HER2 interpretation from faculty experts.

Breast Radiology-Pathology Correlation: The Radiologist’s Viewpoint
In this session, we will review different breast imaging modalities and options for biopsy and localization as well as recommendations for management of lesions diagnosed on core needle biopsy. Additionally, we will review factors of imaging and pathology reports which are important for surgical planning. This is a great chance for participants to ask the radiologist questions and engage in a group discussion around radiology-pathology correlation in order to gather tips and best practices from peers and experts that you can apply back at your laboratory or institution. It will also give you some ideas for enhancing communication between your lab and radiologist as well as other members of the multidisciplinary patient care team moving forward.

Multidisciplinary Breast Pathology: The Surgeon’s Viewpoint
In this session, you’ll gain a better understanding of breast conserving surgery (BCS) and breast conserving therapy (BCT) and learn how to apply the rationale and clinical goals of BCS and BCT to your pathologic evaluation of breast specimens. You will also learn how to identify eligible patients, the best approach for specimen handling, and effective methods of margin evaluation. You will also review realistic breast cancer scenarios with our faculty expert, a seasoned breast surgeon, and have the opportunity to ask questions about the surgeon’s perspective of breast cancer diagnosis and treatment. You’ll also hear common issues or questions that arise for the surgeon when receiving and interpreting pathology reports, and how to enhance communication with the surgeon when interpreting and evaluating core needle breast biopsies, incisional and excisional biopsies, lumpectomy, mastectomy, lymph nodes or other breast specimens. The importance of communication between pathologist and surgeon in evaluating adequacy of lumpectomy for breast cancer will also be discussed.
Workshop Agenda

Participants should plan on staying for the entire workshop as completion of all CME is a requirement to obtain the Certificate of Completion.

Prior to attending the workshop, participants should complete all seven online activities. The workshop is one and a half days in length. The agenda is provided below.

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<tr>
<th>Multidisciplinary Breast Pathology Workshop Agenda</th>
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<tr>
<td><strong>DAY 1</strong></td>
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<td><strong>8:00 AM-Noon</strong></td>
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PROGRAM REGISTRATION

How to Register
To start the MBP Advanced Learning Series enrollment process, submit your completed MBP Advanced Learning Series registration form along with your payment via email at AP3@cap.org, fax at 847-832-8006, or mail to:

College of American Pathologists  
CAP Learning, Advanced Learning Series  
325 Waukegan Road  
Northfield, IL 60093

Registration Fees
MBP Advanced Learning Series Fee*:  
Fee includes all online activities and the 1.5-day workshop. The current fee for the MBP Advanced Learning Series program is located on the registration form. Discounts for Membership and Early Bird Registration will be listed.

*Fees exclude travel expenses (airfare, lodging, some meals, etc).

Advanced Learning Series Program Completion
MBP Advanced Learning Series participants need to complete and pass the CME within one year following completion of the workshop; otherwise, a new registration form and enrollment fee is required.

Cancelation Policy
Please contact the CAP should you decide to cancel your registration in the program. The CAP will refund your registration fee, less a $100 processing fee, if you cancel prior to beginning the curriculum. After that, the CAP will consider refunds on a case-by-case basis. No refunds will be issued for online activity cancellations received after the coursework is initiated.

Should you need to cancel your workshop registration, please contact the CAP as soon as possible. The CAP will apply your payment to a future MBP Advanced Learning Series, provided you cancel within two weeks prior to the workshop.

The CAP reserves the right to cancel any Advanced Learning Series CME workshop without prior notice for insufficient preregistration or for any other reason. The CAP is not responsible for airline or hotel cancellation penalties or any other losses incurred as a result of cancellation.

Withdrawal and Refund Policy
Participants may withdraw from CAP Advanced Learning Series at any time. To withdraw, please submit a written request to the CAP Council on Education.

The CAP will manage participant requests for a program fee refund on a case-by-case basis. You must submit your refund request in writing separately from your request to withdraw from the CAP MBP Advanced Learning Series. The CAP will refund your registration fee, less a $100 processing fee for the live workshop, if the request to withdraw occurs prior to you beginning the CAP Advanced Learning Series curriculum.
Additional Participation Information

PROGRAM COMPLETION
MBP Advanced Learning Series participants need to successfully complete the online activities (CME) and within one year following completion of the workshop; otherwise a new application and enrollment fee are required.

NOTIFICATION OF REQUIREMENTS COMPLETION
Upon successful completion of the six online courses and 1.5-day workshop, the participant will receive the certificate within four to six weeks of notification.

Questions?
Please contact:

College of American Pathologists
CAP Learning, Advanced Learning Series
325 Waukegan Road
Northfield, IL 60093
Tel: 800-323-4040 option 1
Fax: 847-832-8006
Email: AP3@cap.org

Find additional information on this and other Advanced Learning Series program at https://learn.cap.org/offerings.aspx.