Friday, July 19, 2013
7:00am - 8:00am: Registration & Continental Breakfast
8:00am - 9:00am: Opening Remarks
5:00pm - 6:00pm: General Session 1
9:00am - 10:00am: Workshops A & B
10:00am - 11:00am: Refreshment Break
11:00am - 12:00pm: Workshops C & D
12:00pm - 1:00pm: Lunch on your own
1:00pm - 2:00pm: Workshops E & F
2:00pm - 3:00pm: Refreshment Break
3:00pm - 4:00pm: Workshops G & H
4:00pm - 5:00pm: General Session 2
5:00pm - 5:30pm: Poster Session & Networking Reception

Saturday, July 20, 2013
9:00am - 10:00am: Registration & Continental Breakfast
10:00am - 11:00am: Opening Remarks
11:00am - 12:00pm: General Session 3
12:00pm - 1:00pm: Lunch Provided by NSH
1:00pm - 2:00pm: Workshops A & B
2:00pm - 3:00pm: Refreshment Break
3:00pm - 4:00pm: Workshops C & D
4:00pm - 5:00pm: General Session 4
5:00pm - 5:30pm: Q&A Panel

Place: Doubletree by Hilton, Bethesda, MD 20814

Getting to the Forum
Doubletree by Hilton Bethesda-Washington DC is located in downtown Bethesda, MD just north of the District line and is conveniently located by DC Metrorail System. For complete driving directions visit http://www.doubletree-bethesda.com/Map-Directions. Parking at the hotel is for overnight guests.

Doubletree by Hilton Bethesda-Washington, DC
8850 Wisconsin Avenue | Bethesda, MD 20814

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For questions regarding your registration or if you need to make changes, please call our office at 443-535-4060 between the hours of 9:00 a.m. and 5:00 p.m. Monday - Friday Eastern time or email, jessica@nsh.org.
Tissue controls are an important component of diagnostic immunohistochemical testing. This workshop will discuss the selection and interpretation of positive control tissue for various target proteins, as well as negative control reagents and when they should be used. Other topics to be covered include: interpretation of negative controls and pitfalls in immunohistochemistry. The workshop will present case studies to illustrate probable uses and limitations of tissue controls.
Workshop A: Research IHC on Animal Tissues

Presented by Ashrafi Murul, Ventana Medical Systems

IHC on animal tissues is an important tool in modern research. This workshop will present current research methods and technology, and discuss best practices for researchers. The workshop will feature presentations on the use of animal tissues in research, the most common protocols and methods, and common mistakes to avoid. Attendees will have the opportunity to engage in discussions and ask questions to the presenters.

Workshop B: Primary Antibody Optimization, Validation, and the Use of Positive and Negative Controls in Diagnostic Pathology

Presented by Terri Yan, TEGO, Biocare Medical

Tissue controls are an important component of diagnostic immunohistochemical testing. This session will discuss the selection and interpretation of positive control tissue for various target proteins, as well as negative reagent controls and when they should be used. Other topics to be covered include: how to create controls that are representative of the tissue on the test slide, preparation of positive controls using cell cultures and tissue injection, and the issue of when to use commercially-available controls. Attendees will have the opportunity to engage in discussions and ask questions to the presenters.

Workshop C: Technology Overview of Molecular Pathology

Presented by Juan-Franco, PhD, Biocare Medical

Molecular pathology is a rapidly evolving field that provides unique opportunities for those accustomed to IHC and proteins. This workshop will provide an overview of basic molecular biology to offer a better understanding of the applications and diagnostic relevance of molecular pathology. A review of the scientific principles of molecular biology will be covered. The workshop will also cover the transcription and translation processes. Different molecular approaches from PCR to IHC will be shown. The pros and cons of these technologies will be discussed, including which molecular techniques and controls to use for various detection or treatment assessment purposes. The presentation will also discuss the future of molecular pathology, and discuss routes for personalized medicine.

Workshop D: Target Retrieval Methods, Reagents, and Devices

Presented by Terri Yan, TEGO, Biocare Medical

This presentation is intended to provide participants with a review of the scientific development of heat-induced epitope retrieval (HIER) as well as the various devices that have been used to perform these procedures. Special emphasis will be placed on comparing use of household (i.e. kitchen) appliances to instruments designed expressly for HIER. The cost associated with use of various devices and reagents and their devices will also be discussed. Manual lab, including reference tables/spreadsheets and published papers, will be provided.

Workshop E: Troubleshooting Immunohistochemical Assays

Presented by Eleonora Rapaccini, Ventana Medical Systems

Interrogation of nuclear acid at presence in situ has been related to cellular and clinical applications. This workshop will discuss various issues and strategies to measure presence of DNA molecules in situ. The workshop will also discuss the enumeration of signals and common interpretive mistakes. Participants will learn to troubleshoot common examples will be shown to highlight the best practices when optimizing a DNA ISH assay.

Workshop F: Best Practices for Immunohistochemical Detection and Interpretation of Estrogen Receptor Protein, Progesterone Receptor Protein, and HER-2/neu Protein Overexpression in Human Breast Cancers

Presented by Richard Carter, PhD, Hospitral Memorial

Accurate identification and interpretation of estrogen receptor (ER) and progesterone receptor (PR) proteins, and HER-2/neu (HEP) protein overexpression are critical for determining appropriate therapy in patients with breast cancer. This workshop will review “Best Practices” for breast tissue biopsy, fixation, processing, tissue sectioning, as well as immunohistochemical staining for ER, PR, and HER-2/neu. Interpretation of results and validation and selection will be discussed. Comparison of internal laboratory results with published benchmarks and intra-laboratory continuous monitoring for analytical drift will be discussed. How to analyze and interpret findings and patient-specific considerations will be discussed. Emphasis will be placed on the opportunity to evaluate and score ER, PR, and HER-2/neu. The presentation will also discuss the role and interpretation of a negative control.

Workshop G: Base in situ Hybridization Theoretical Background

Presented by Eulalia Gisler, Ventana Medical Systems

Molecular Testing in the context of today’s NGS and IHC laboratory. Whether the laboratory is equipped with an NGS platform or an IHC platform, the ability to detect mutations in targeted pathways is critical in the practice of diagnostic testing. Detection of mutations in this workshop will cover the basics of base in situ hybridization and the interpretation of results. The workshop will cover the basics of base in situ hybridization and the interpretation of results.

Workshop H: Value of Imaging in the Histology Laboratory

Presented by Ken Pavlicek, MD, PhD, University of Liverpool, Liver, and Sheffield, England

This workshop will cover the role of imaging in the histology laboratory. The presentation will cover the use of imaging in the histology laboratory, including the use of digital imaging in the histology laboratory, the role of imaging in the histology laboratory, and the use of imaging in the histology laboratory.

General Session 2: The p53 Biomarker – Clinical Value in Cervical and non Cervical Cancer Diagnosis

Presented by Dr. Wen Deng, University of California, Los Angeles

This general session will discuss exciting new results and emerging biomarkers, including p53, in cervical cancer screening and diagnosis.

General Session 3: Lung Cancer: Immunohistochemistry and Molecular Testing

Presented by Dr. Euan Fotheringham, University of Oxford

Diagnosis of lung cancer can prove to be challenging, due to the use of core needle biopsy, which provides limited amounts of tissue. The histology laboratory plays a vital role in determining benign or malignant disease, and new technologies such as whole slide imaging are playing an integral role in improving efficiency and increasing services. This practical workshop will help attendees gain an understanding of the histology laboratory systems and new technologies such as imaging and image analysis. The speakers will provide attendees with a crash course in molecular testing. Attendees will be exposed to new technology currently being used in the pathology laboratory, via sharing of real case scenarios, challenges, and barriers to new technologies.

General Session 4: Breast Cancer: Gross and Microscopic Pathology, Immunohistochemistry, and Molecular Diagnostics

Presented by Thomas Hwu, DO, Merck Health Systems

Breast cancer is one of the more common cancers in the world, affecting both men and women. This workshop will cover the basics of breast cancer from diagnosis to treatment, with each step affecting the possible outcome of survival. This seminar will cover both traditional light-microscopic morphology of the 50th and 25th centuries, as well as the IHC-based classifications of breast cancer (Luminal A and B, and HER2+), hormone receptor (ER and PR), and HER2. The workshop will also discuss the importance of each step in the diagnosis of breast cancer and the confirm of the various subtypes will be included. New diagnostic methods such as gene signatures and molecular markers are being developed as standard therapies and those now being developed. The workshop will provide attendees with an overview of the latest developments in breast cancer, pre-existing lesions, hereditary conditions, and hereditary breast disease, beginning with a quick overview of cancer principles, how they were developed, and why various factors can influence the risk for breast cancer.

General Session 5: Molecular Techniques in Cervical Cancer: Current and Future Approaches

Presented by Dr. Wen Deng, University of California, Los Angeles

This session will discuss exciting new results and emerging biomarkers, including p53, in cervical cancer screening and diagnosis.

General Session 6: Microsatellite Instability in Colorectal Cancer

Presented by Paul Sheppart, HT(ASCP), Ventana Medical Systems

Microsatellite instability (MSI) is caused by the loss of DNA mismatch repair activity, and is detected in about 5% of all colorectal cancers. Cells with these alterations are more susceptible to immunohistochemical staining. A cancer is a corresponding testing strategy. The workshop will discuss MSI as applied to the development of MSI diagnostic procedures. MSI is an important tool in the diagnosis of colorectal cancer and the confirm of the various subtypes will be included. New diagnostic methods such as gene signatures and molecular markers are being developed as standard therapies.
Workshop A: Research in Human Animals
Presented by: Ashish Mullick, Ventana Medical Systems
Research in human animals is an important tool in medical sciences. The use of this tool is regulated by strict ethical standards and guidelines. These standards are designed to ensure that the research is conducted safely and ethically. It is important to note that the use of animals in research is not without controversy, as some people believe that it is unethical to use animals in medical research.

Workshop B: Primary Antibody Optimization, Validation, and the Use of Positive and Negative Controls in Diagnostic Pathology
Presented by: Traci DeGeer, Ventana Medical Systems

Workshop C: Technology Overview of Molecular Pathology
Presented by: Juan Perez, Ph.D., Biocartis Systems

Workshop D: Target Retrieval Methods, Reagents, and Devices
Presented by: Keys, YUCC2, Biorad Medical

Workshop E: Optimizing DNA ISH Assays for Research
Presented by: Jean-Marie Pittard, DeCode Genetics

Workshop F: Best Practices for Immunohistochemical Detection and Interpretation of Estrogen Receptor Protein, Progesterone Receptor Protein, and Her-2/neu Protein
Presented by: Richard Cartun, Ph.D., Hartford Hospital

Workshop G: Value of Information in the Histology Laboratory
Presented by: Art Parner, M.D., Ph.D., University of Pittsburgh, Pittsburgh, PA

Workshop H: Immunohistochemistry and Molecular Diagnosis
Presented by: Thomas Hsueh, D.O., Merck Health Systems

General Session: Microsatellite Instability in Colorectal Cancer
Presented by: Beth Sheppard, HT(ASCP), Ventana Medical Systems

Microsatellite Instability (MSI) is caused by the loss of DNA mismatch repair activity. MSI is detected in about 5% of all colorectal cancers and some of these associated with Lynch syndrome. MSI is a corresponding testing strategy used to evaluate the risk of MSI-associated colorectal cancers, premalignant lesions, hereditary colorectal cancer, breast cancer, and Lynch syndrome. MSI has become an important test in breast disease, beginning with a quick overview of cancer principles and how various factors can influence the risk for breast cancer.

General Session: Lung Cancer: Immunohistochemistry and Molecular Testing
Presented by: Traci DeGeer, Ventana Medical Systems

General Session: Lung Cancer: Immunohistochemistry and Molecular Diagnosis
Presented by: Thomas Haas, D.O., Mercy Health Systems

Lung cancer is one of the most common forms of cancer in the United States. The staging of lung cancer is a crucial part of the treatment process. The staging process helps determine the extent of the cancer and the treatment options available. The staging process involves a combination of diagnostic tests, including imaging studies, biopsies, and genetic testing.

General Session: Breast Cancer: Gross and Microscopic Pathology, Immunohistochemistry, Immunohistochemistry and Molecular Diagnosis
Presented by: Thomas Hsueh, D.O., Merck Health Systems

Breast cancer is one of the most common cancers affecting women in the United States and worldwide. The diagnosis of breast cancer is important for both the patient and the family. Breast cancer is diagnosed through a combination of medical tests, including mammograms, ultrasounds, and biopsies. These tests help determine the extent of the cancer and the treatment options available.

General Session: Mixed Tumor/Epithelial Tumor, Metastases
Presented by: Traci DeGeer, Ventana Medical Systems

Malignant mixed tumor/epithelial tumor is an entity that is frequently associated with IHC and histologic examination. The IHC pattern is usually characteristic and diagnostic. The clinical significance of this entity is discussed in this session.
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12:30pm - 2:00pm  Lunch on your own
2:45pm - 3:15pm  Workshops C & D
3:30pm - 4:30pm  Workshops E & F
4:30pm - 7:00pm  Q&A Panel

Saturday, July 20, 2013

7:30am - 8:15am  Registration & Continental Breakfast
8:15am - 9:00am  Opening Remarks
9:00am - 12:15pm  Workshops G & H
12:15pm - 1:15pm  Lunch Provided by NSH
1:45pm - 3:00pm  Workshops E & F
3:15pm - 4:30pm  Workshops C & D
4:45pm - 5:00pm  Q&A Panel

The National Society for Histotechnology Presents
5th Annual
IHC/Molecular Forum
Date: July 19-20, 2013
Place: Doubletree by Hilton, Bethesda, MD

Join NSH for our two day forum designed to explore molecular and IHC topics in both the clinical and research setting. The NSH IHC/Molecular Forum is a unique training experience offering a winning combination of general sessions and workshops providing you with the tools to be successful in the lab. The Forum is a great value for your precious training dollars featuring 10 expert speakers and offering 13 continuing education credits for one low price!

Cancellations and Refunds
All cancellations must be received in writing by July 12, 2013 to receive a full refund. Cancellations received after July 12, 2013 and no shows to the event are non-refundable. Substitutions are accepted at any time and we must receive written notification in advance. Individuals registering after July 12, 2013 will NOT be eligible for a refund.

For questions regarding your registration or if you need to make changes, please call our office at 443-535-4060 between the hours of 9:00 a.m. and 5:00 p.m. Monday - Friday Eastern time or email, jessica@nsh.org.
**Schedule at a Glance**

**Travel Arrangements**

**2013 IHC/Molecular Forum Registration Form**

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**Membership Status (check all that apply):**
- No Member: $79
- New Member – I would like to join today ($80)
- Member: $229
- Non Member ($269.00)
- Current NSH Member, my dues are paid
- Full NSH Member, my dues are paid

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**Dates and Times:**

**Date: July 19-20, 2013**

**Place: Doubletree by Hilton, Bethesda, MD**

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**Hotel Details:** Doubletree by Hilton Bethesda-Washington, DC • 8120 Wisconsin Avenue | Bethesda, MD 20814

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**Getting to the Forum**

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- **Opening Remarks**
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- **General Session 2**
- **General Session 3**
- **General Session 4**
- **General Session 5**
- **Coffee & Refreshment Break**
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- **Workshops E & F**
- **Workshops I & J**
- **Closing Remarks**

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**Membership Benefits:**

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- High-quality, well-packaged educational content
- Unique, expert-presented educational programming
- Both the clinical and research setting
- The NSH IHC/Molecular Forum is a unique value for your precious training dollars featuring 10 expert speakers and offering workshops providing you with the tools to be successful in the lab.

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**Charge my credit card $____________ (Visa, Mastercard, American Express, or Discover)**

**Check Enclosed $ ____________**

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**Payment Information:** (Please note that funds must be in US Dollars on a US Bank)

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**Company __________________________________**

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**Address: ______________________________________________________________________________**

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**CC #: _________________________________________________ Date: _____________ CVV Code: __________________**

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**Fax: (443) 535-4055 | Email: histo@nsh.org  | Via Mail: NSH, 8850 Stanford Blvd, Suite 2900, Columbia, MD 21045**

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**Registration Fees:**

- Member: $229
- Non Member: $79

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**Schedule of Lectures:**

**Date: July 19-20, 2013**

**Place: Doubletree by Hilton, Bethesda, MD**

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**Event Log:**

**Charge my credit card $____________ (Visa, Mastercard, American Express, or Discover)**

**Check Enclosed $ ____________**

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