

**38 th E.T. Bell Fall Pathology Symposium  
New and Emerging Molecular Technology  
Friday, November 1, 2013**

**Course Director and Moderator**

***Jon H. Ritter, MD***

*Professor of Laboratory, Medicine and Pathology  
Director of Anatomic Pathology  
University of Minnesota  
Minneapolis, MN*

**PROGRAM AGENDA**

7:00 a.m.	<b>Registration and Continental Breakfast</b>	
7:50 a.m.	<b>Opening Remarks:</b>	<i><b>Jon Ritter, MD</b></i>
8:00 a.m.	<b>Cytogenetics on the Use of Non-Tumor Applications:</b>	<i><b>Betsy Hirsch, PhD</b></i>
8:30 a.m.	<b>Cytogenetics on the Use in Tumor Applications:</b>	<i><b>Michelle Dolan, MD</b></i>
9:00 a.m.	<b>Molecular Pathology Uses in Neuropathology:</b>	<i><b>Jon Wilson, MD</b></i>
9:30 a.m.	<b>Applications of Molecular Pathology to Soft Tissue Pathology:</b>	<i><b>Jon Wilson, MD</b></i>
10:00 a.m.	<b>Break</b>	
10:30 a.m.	<b>Molecular Pathology Application in Breast Pathology:</b>	<i><b>Andrew Nelson, MD</b></i>
11:45 a.m.	<b>Next Generation Immunohistochemistry: A Window Onto the Molecular Biology of Tumors:</b>	<i><b>Allen M. Gown, MD</b></i>
12:00 p.m.	<b>Lunch Break</b>	
1:15 p.m.	<b>Development of Next-Generation Sequencing Panels for Routine Clinical Applications:</b>	<i><b>Bharat Thyagarajan, MD</b></i>
2:00 p.m.	<b>Thyroid FNA: Current Practice and Emerging Role of Molecular Analysis:</b>	<i><b>Hannah Krigman, MD, Andrew Nelson, MD</b></i>
2:30 p.m.	<b>Molecular Diagnosis of Infections:</b>	<i><b>Sophie S Arbefeville, PhD</b></i>
3:00 p.m.	<b>Break</b>	
3:30 p.m.	<b>State of Practice of Molecular Pathology in Hemepath:</b>	<i><b>Sophia Yohe, MD</b></i>
4:30 p.m.	<b>Ernst Award and Closing Remarks:</b>	<i><b>John Crosson, MD</b></i>
4:45 p.m.	<b>Adjournment</b>	

## **COURSE FACULTY**

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#### **Sophie L. Arbefeville, PhD**

*Assistant Professor of Laboratory Medicine and  
Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Michelle Dolan, MD**

*Associate Professor  
Department of Laboratory Medicine and Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Allen M. Gown, MD**

*Medical Director and  
Chief Pathologist  
PhenoPath Laboratories  
Seattle, Washington  
Clinical Professor of Pathology  
University of British Columbia  
Vancouver, BC*

#### **Betsy Hirsch, PhD**

*Associate Professor  
Department of Laboratory Medicine and Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Hannah Krigman, MD**

*Associate Professor of Laboratory Medicine and  
Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Andrew Nelson, MD**

*Molecular Pathology Fellow  
Department of Laboratory Medicine and Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Bharat Thyagarajan, MD**

*Assistant Professor  
Department of Laboratory Medicine and Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Jon Wilson, MD**

*Associate Professor  
Department of Laboratory Medicine and Pathology  
University of Minnesota  
Minneapolis, MN*

#### **Sophia Yohe, MD**

*Assistant Professor of Laboratory Medicine and  
Pathology  
University of Minnesota  
Minneapolis, MN*

## **EDUCATIONAL OBJECTIVES**

At the conclusion of the conference, participants should be able to:

1. Explain changes in methodology and practice that are taking place in cytogenetics.
2. Recognize opportunities provided by use of next generation sequencing, as well as develop understanding of challenges presented by that testing.
3. Understand current and emerging use of molecular techniques in multiple organ systems, including the thyroid, breast cancer, hematolymphoid system, neuropathology, soft tissue pathology, and infectious disease.
4. Recognize the major molecular alterations that characterize human tumors.
5. Identify a key protein mutation in brain tumors that can be detected via immunohistochemistry.
6. Recognize how a mutation in a gene can result in an abnormal localization of the corresponding protein.
7. Recognize how different alterations in a gene can result in the same final common pathway of loss of protein expression.
8. Understand how immunohistochemistry can be employed to detect chromosomal translocations that are specific for certain malignancies, e.g. alveolar soft part sarcoma.
9. Recognize how immunohistochemistry can be integrated with fluorescence in situ hybridization to detect the presence of ALK alterations in lung adenocarcinoma.

## **STATEMENT OF NEED**

This symposium will present recent advances in the field of molecular pathology. The presentation will emphasize the need for an interdisciplinary approach to diagnosis and treatment, and will focus on recently described entities, diagnostic criteria, differential diagnosis and the impact of our diagnosis on prognosis and therapeutic procedures.

## **ACCREDITATION**

### **AMA Credit Designation Statement**

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Minnesota Medical Association and Minnesota Society of Pathologists. The Minnesota Medical Association (MMA) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The Minnesota Medical Association designates this live event for a maximum of **11.25 AMA PRA Category 1 Credit(s)**<sup>TM</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### **Nurse Practitioner, Nurses, and Other Health Care Professionals**

Nurse practitioners, nurses, and other health care professionals who participate in this CME activity may submit their Statements of Attendance to their appropriate accrediting organizations or state boards for consideration of credit. The participant is responsible for determining whether this activity meets the requirements for acceptable continuing education.

### **American Academy of Physician Assistants**

AAPA accepts AMA Category 1 CME credits for the PRA from organizations accredited by the ACCME.

## **DISCLAIMER**

The content of this CME activity does not necessarily reflect the view or policies of the Minnesota Medical Association.



**Minnesota Society of Pathologists  
E.T. Bell Fall Symposium and Minnesota Society of Pathologists Fall Seminar  
Minneapolis, MN  
November 1-2, 2013**

**Disclosure:**

It is the policy of the Minnesota Medical Association (MMA) to ensure balance, independence, objectivity, and scientific rigor in its CME activities. To comply with the Standards for Commercial Support of the Accreditation Council for Continuing Medical Education (ACCME), the MMA requires members of the planning committee and faculty to disclose the existence of any financial interest or other relationship he/she and his/her spouse or partner has with companies whose health care products or services are discussed in an educational presentation. The requirement applies to relationships that are in place at the time of the CME activity or in the 12 months preceding the activity.

The members of the faculty and planning committee for this conference have indicated that they have no relevant financial relationships to disclose related to the content of the CME activity.

Faculty members have declared that they will uphold the MMA's standards regarding CME activities and that any clinical recommendations are based on the best available evidence or are consistent with generally accepted medical practice. Please indicate in the comments section of the evaluation form whether you detect any instances of bias toward products manufactured by commercial interests.

**CME Credit:**

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**Minnesota Society of Pathologists' Annual Slide Seminar:  
Survey of Diagnostics Technology  
Saturday November 2, 2013**

**PROGRAM AGENDA**

- 7:30 a.m.      **Registration and Continental Breakfast**  
8:00 a.m.      **Case Review and Discussion of Slides**  
9:30 a.m.      **Break**  
10:00 a.m.     **Case Review and Discussion of Slides**  
12:00 p.m.     **Business Meeting and Lunch**  
                 Financial Update  
                 Membership Update  
                 **Announcement of the Distinguished Pathologist's Award Recipient:**  
                 **David Blomberg, MD**
- 1:00 p.m.      **Case Review and Discussion of Slides**  
2:30 p.m.      **Adjournment**

**Course Faculty**

**Allen M. Gown, MD**  
*Medical Director and  
Chief Pathologist  
PhenoPath Laboratories  
Seattle, Washington  
Clinical Professor of Pathology  
University of British Columbia  
Vancouver, BC*

**Moderator**

**Jon Ritter, MD**  
*Professor of Laboratory, Medicine and Pathology  
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