

**9th ANNUAL DEPARTMENT OF PATHOLOGY YOUNG INVESTIGATORS' DAY  
POSTER SESSION**

**Thursday, April 5<sup>th</sup>, 2007  
TURNER CONCOURSE  
REGISTRATION FORM**

**E-mail COMPLETED Registration form and abstract to:  
Stacey Morgan ([smorgan9@jhmi.edu](mailto:smorgan9@jhmi.edu)) on or before  
Friday, March 16th, 2007**

**If you have questions or problems regarding your submission, please contact Stacey  
Morgan via e-mail ([smorgan9@jhmi.edu](mailto:smorgan9@jhmi.edu))**

Applicant's Name: Janis Taube Degree: MD

Applicant's Division: PGY-3 Pathology Resident

Faculty Preceptor: Dr. William Westra  
(Must hold a primary appointment in Pathology)

Appointment Category:  House Staff  Clin Fellow  Research Fellow  
 Medical Student  Graduate Student (Program: \_\_\_\_\_)

Register for:  Clinical Research  Translational Research  Basic Research

Full Poster Title \* Impact of elastic staining on the staging of peripheral lung  
cancers

Where has the work been presented?

Meeting Name American Society for Clinical Pathology

Meeting Date October 18-22, 2006

Not Previously Presented \_\_\_\_\_

Where is this work being published? American Journal of Surgical Pathology

Journal Name, Volume, Page, Date In Press

In Preparation \_\_\_\_\_

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**\*INCLUDE A ONE-PAGE ABSTRACT (including title and all authors) OF THE WORK YOU WILL BE PRESENTING**

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### **Impact of elastic staining on the staging of peripheral lung cancers**

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#### **Abstract**

**Background:** Accurate staging of lung cancer has a profound impact on patient management. For stage I non-small cell lung carcinomas (NSCLC), the absence (stage IA) or presence (stage IB) of visceral pleural invasion (VPI) represents a critical therapeutic branch point: patients with stage IB NSCLC benefit from adjuvant chemotherapy, whereas patients with stage IA NSCLC do not. Elastic staining has been advocated as a simple method for visualizing pleural invasion. The purpose of this study was to determine whether routine elastic staining of resected peripheral NSCLCs alters tumor staging in a meaningful way.

**Design:** The study cases consisted of 100 consecutive peripheral NSCLCs resections that were pathologically staged as IA based on routine histologic assessment. Each case was stained with the Movats pentachrome elastic stain to aid identification of VPI. To assess current standards of surgical pathology practice, members of the American Association of Directors of Anatomic and Surgical Pathology were asked whether they never, sometimes or always order elastic stains for peripheral NSCLCs that abut the pleura.

**Results:** Elastic staining resulted in change in tumor stage from IA to IB in 19 (19%) cases. Of the 49 pathologists that responded to the survey, 25 (51%) never, 14 (29%) sometimes, and 10 (20%) always order an elastic stain for NSCLCs abutting the pleura.

**Conclusions:** Elastic staining is currently not standard surgical pathology practice for the evaluation of peripheral NSCLCs, but it should be. Invasion of the pleura is an elusive finding that is best appreciated with an elastic stain. In the absence of routine elastic staining, standard histopathologic evaluation underestimates the extent of tumor spread resulting in inaccurate tumor staging and, in turn, suboptimal patient management.