



# **A Digital Pathology Solution for Immunohistochemistry (IHC) - It's All about Workflow -**

**Webinar**

**March 25, 2009**

# About the Author

**Holger Lange, Ph.D.**

*Product Director, Image Analysis  
Aperio Technologies Inc.*

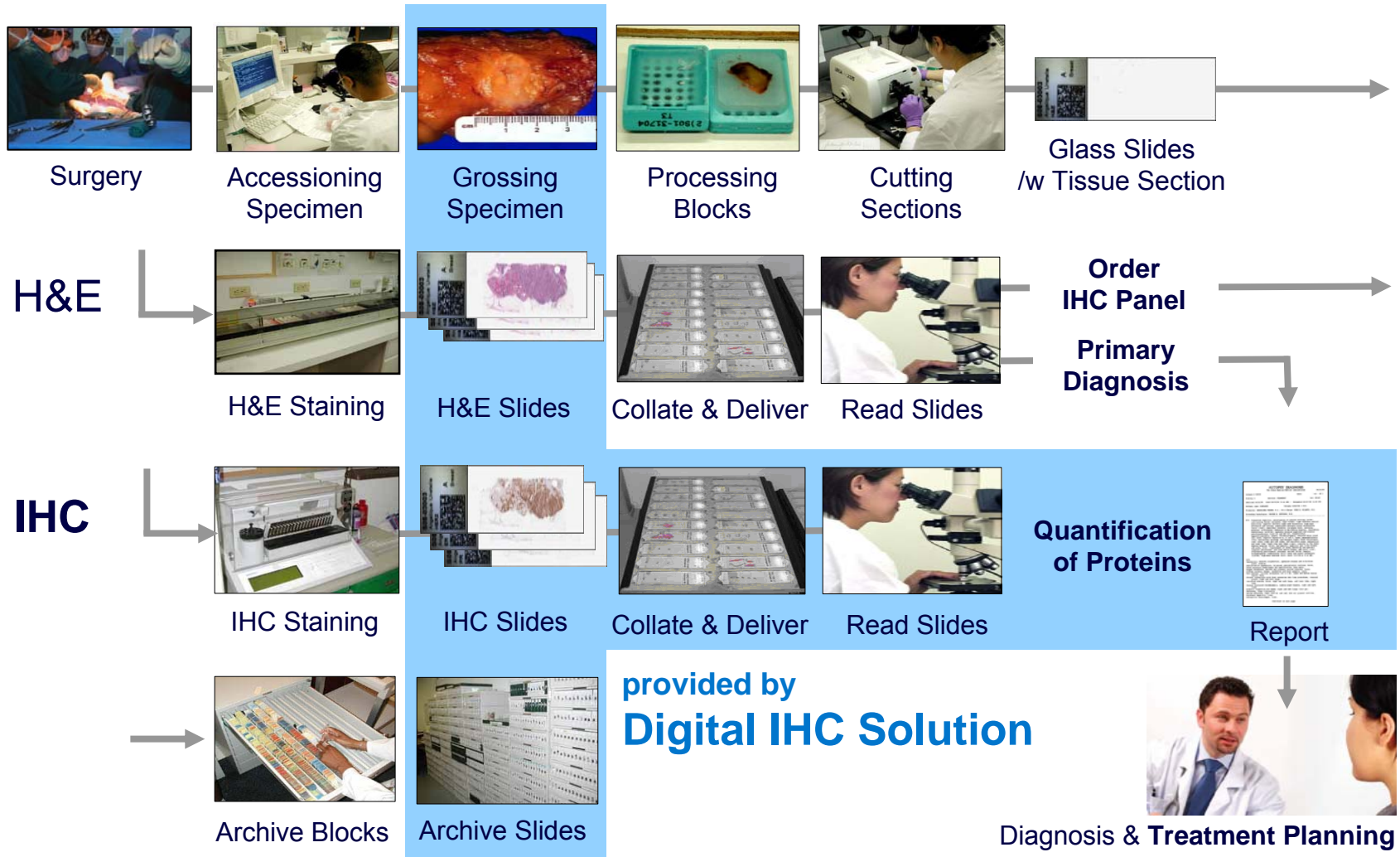
**Product Director**

for **Aperio's Digital Pathology Solution for IHC**

**Clinical Study Director**

for **Aperio's Portfolio of FDA Clearances for IHC**

# Traditional Clinical Workflow

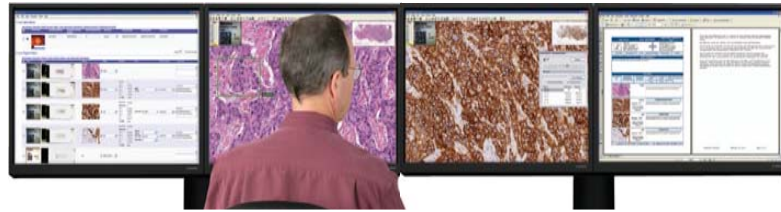


# All-Digital Workflow for Immunohistochemistry

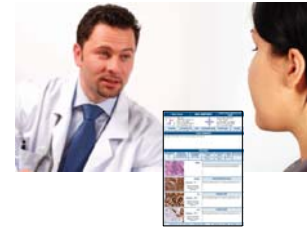
## From Slides to Reports in under 30 Minutes



Laboratories



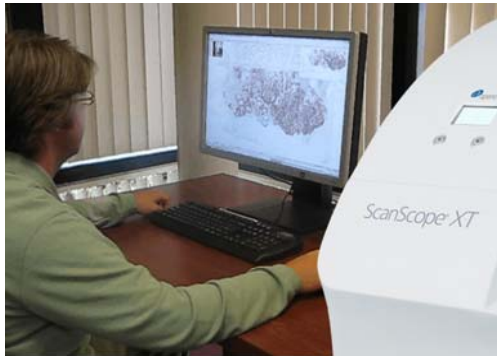
Pathologists



Oncologists Patients

# Easy-to-use ScanScope® Slide Scanners

**High-quality and high-throughput slide scanning with walk-away automation**



**Completely automated data entry**

- Barcodes
- LIS/LIMS Integration

**Setting a new standard for instrument calibration**

- Automatic calibration with every scan,
- Professional color management using ICC profiles.



**Reduce costs, simplify your process, and improve turn-around time.**  
Handle all slides digitally.

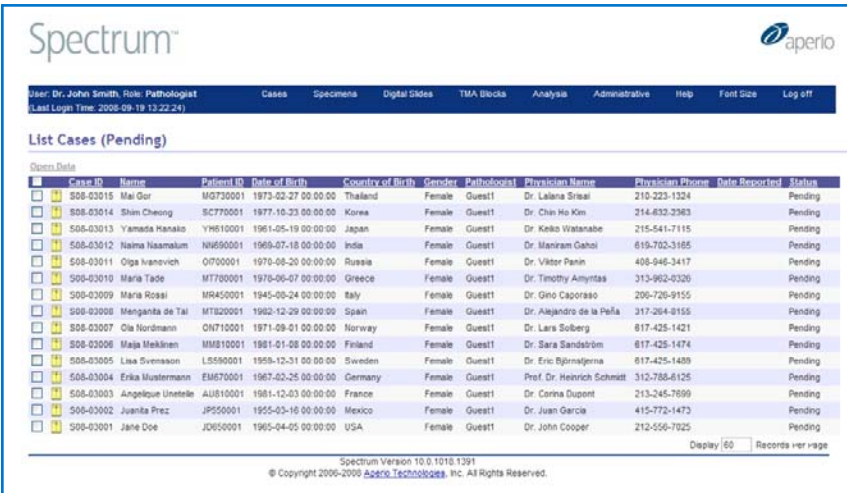


# Spectrum™ Plus

A web-based Digital Pathology Information Management System

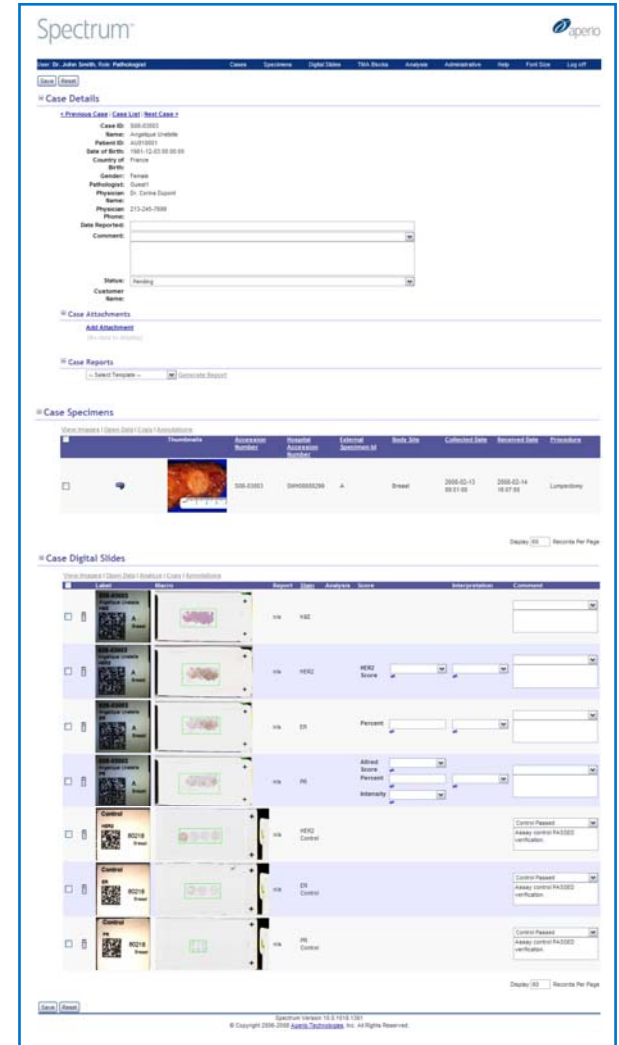


**Improve turn-around time,  
access to specialists and  
save travel time.**  
Instant access, anytime, anywhere.



**Manage  
your  
work  
Efficiently.**  
Using  
case work lists.

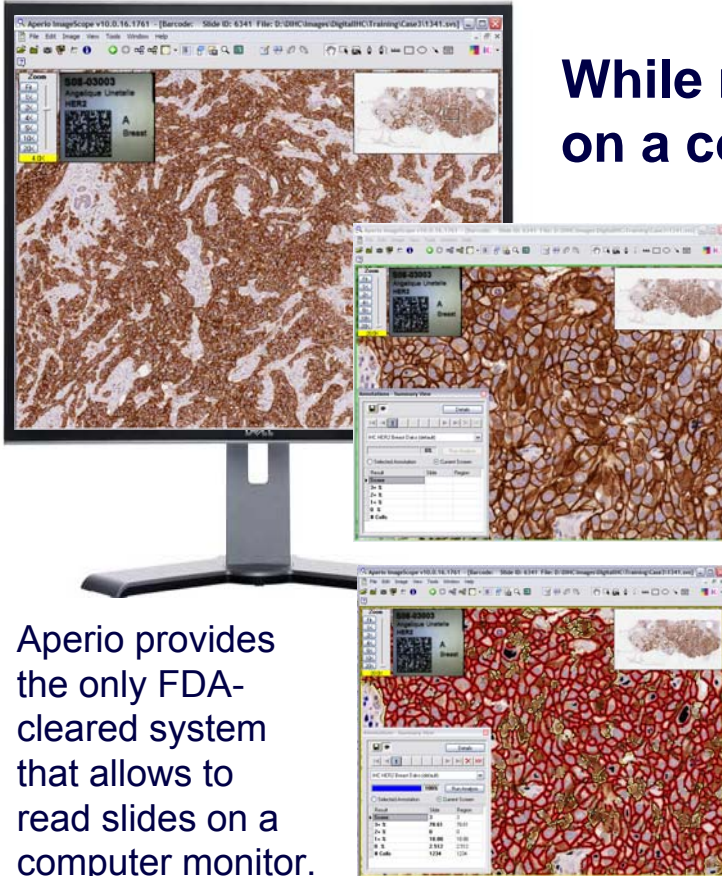
**Provide more informed decisions faster.**  
All case, specimen and slide information  
(incl. gross images and controls)  
at your fingertips.



# An all-digital Solution

Easy-to-use and efficient

While reading slides  
on a computer monitor:



Aperio provides the only FDA-cleared system that allows to read slides on a computer monitor.

**Run IHC Image Analysis simply with a click of a button.**

Count thousands of cells in seconds and improve **accuracy** and **consistency** of your IHC quantification.

*Aperio products are FDA cleared for In-Vitro Diagnostic (IVD) use for specific clinical applications, and are intended for Research Only Use (ROU) for other applications – check: [www.aperio.com](http://www.aperio.com)*

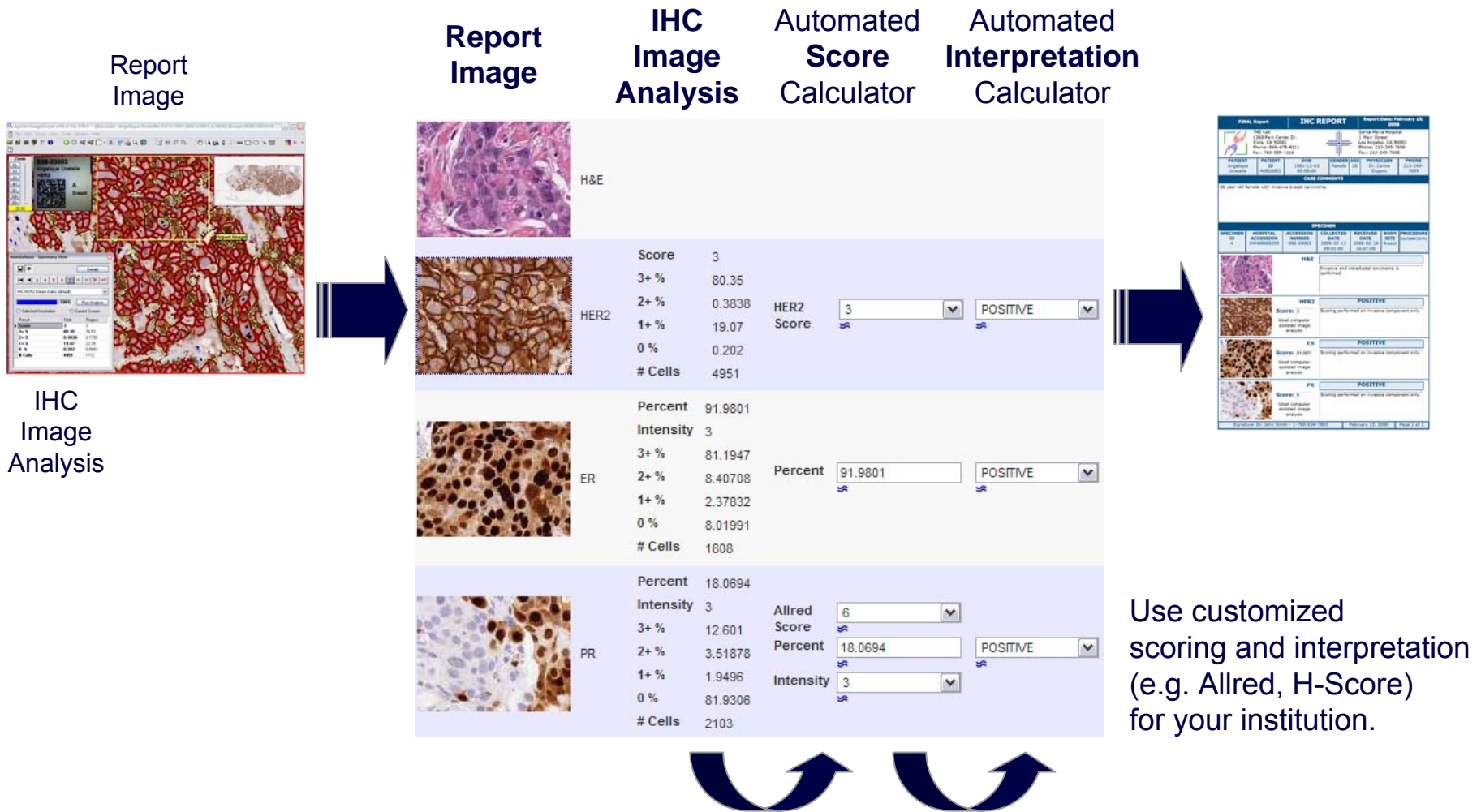
**HER2**

HER2 Score: 2+  
3+ %: 7.0%  
2+ %: 30.0%  
1+ %: 61.0%  
0 %: 2.0%

**ER/PR**

Percentage: 52.3%  
Intensity: 3+  
3+ %: 28.5%  
2+ %: 21.3%  
1+ %: 2.5%  
0 %: 47.7%

# Automated Data Flow from Analysis to Reports



Use customized scoring and interpretation (e.g. Allred, H-Score) for your institution.

# Easy and Accurate Data Entry

## Case Comment

Comment:

- Invasive
- Invasive and In-Situ
- In-Situ Only
- No Carcinoma
- Year Old Female ... Invasive
- Paraffin Block
- Sections

## Slide Comments



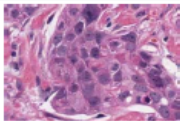
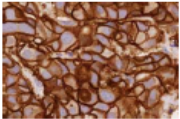
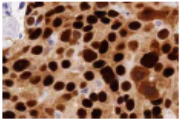
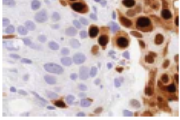
		<input type="text" value="Invasive Intraductal"/> Invasive and intraductal carcinoma is confirmed.	<ul style="list-style-type: none"><li>Focus of Invasive</li><li>Invasive</li><li>Invasive Intraductal</li><li>Invasive Ductal</li><li>Invasive Ductal Intraductal</li><li>Invasive Ductal Lobules</li><li>Lobules Invasive Intraductal</li></ul>
		<input type="text" value="Invasive"/> Scoring performed on invasive component only.	<ul style="list-style-type: none"><li>Invasive</li><li>Heterogene Some</li><li>Heterogene Very</li><li>Aberrant Cytoplasm</li><li>Crush Artifact</li></ul>
		<input type="text" value="Invasive"/> Scoring performed on invasive component only.	<ul style="list-style-type: none"><li>Invasive</li><li>Heterogene Some</li><li>Heterogene Very</li><li>Aberrant Cytoplasm</li><li>Crush Artifact</li></ul>
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## Eliminate transcription steps.

Enter data easily and accurately using canned comments.

Use customized canned comments for your institution.

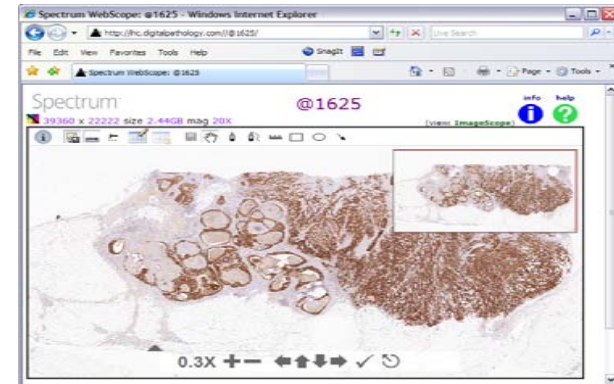
# Automatically generate professional reports with embedded images of the slides

FINAL Report		IHC REPORT			Report Date: February 15, 2008	
 THE Lab 1350 Park Center Dr. Vista, CA 92081 Phone: 866-478-4111 Fax: 760-539-1116		 Santa Maria Hospital 1 Main Street Los Angeles, CA 90001 Phone: 213-245-7656 Fax: 212-245-7600				
PATIENT Angelique Unetelle	PATIENT ID AU810001	DOB 1981-12-03 00:00:00	GENDER Female	AGE 26	PHYSICIAN Dr. Corina Dupont	PHONE 213-245- 7699
CASE COMMENTS						
26 year old female with invasive breast carcinoma.						
SPECIMEN						
SPECIMEN ID	HOSPITAL ACCESSION	ACCESSION NUMBER	COLLECTED DATE	RECEIVED DATE	BODY SITE	PROCEDURE
A	SMH08000299	S08-03003	2008-02-13 09:01:00	2008-02-14 16:07:00	Breast	Lumpectomy
		<b>H&amp;E</b> Invasive and intraductal carcinoma is confirmed.				
		<b>HER2</b> <b>POSITIVE</b> Score: 3 Used computer assisted image analysis Scoring performed on invasive component only.				
		<b>ER</b> <b>POSITIVE</b> Score: 91.9801 Used computer assisted image analysis Scoring performed on invasive component only.				
		<b>PR</b> <b>POSITIVE</b> Score: 8 Used computer assisted image analysis Scoring performed on invasive component only.				
Signature: Dr. John Smith - 1-760-634-7865			February 15, 2008		Page 1 of 2	

Communicate effectively with oncologists.

Empower them to discuss your pathology findings to their patients.

... and access the entire slides.



Use customized report templates for your institution

# All-Digital Workflow for Immunohistochemistry

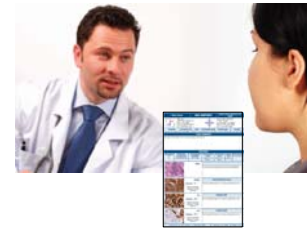
## From Slides to Reports in under 30 Minutes



Laboratories



Pathologists



Oncologists Patients

# A Multi-Use Digital Pathology System

## Adopt Digital Pathology

... take your first step with IHC

- Secondary Consultations
- Tumor Boards
- Quality Assurance
- Proficiency Training / Testing
- Telepathology
- Archival & Retrieval
- Electronic Medical Record
- Education
- Research



# Could you realize your goals with Aperio's Digital IHC Solution?

- Create new business opportunities
- Improve accuracy and consistency of IHC scoring
- Improve turn-around time from slides to reports
- Improve access to pathologists
- Communicate effectively with oncologists and patients
- Simplify slide handing process  
(reduce costs and improve turn-around time)

# Questions?

[www.aperio.com/ihc](http://www.aperio.com/ihc)

[info@aperio.com](mailto:info@aperio.com)

**866-478-4111**