Diagnostics for the early detection and prevention of colon cancer.

Presentation of Validation Study Results

October 28, 2010

Safe Harbor Statement

Certain matters contained in this presentation, other than historical information, consist of forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 relating to, among other things, our expectations concerning the timing of potential commercial and clinical milestones, the efficacy of our technology, our commercial and FDA regulatory strategy, our available cash and cash equivalents, and our business and financial outlook. These forward-looking statements are not guarantees of future performance and are subject to a variety of risks and uncertainties that could cause actual results to differ materially from the results contemplated thereby. Any forward-looking statements we make should be considered in light of the risks and uncertainties contained in our filings with the Securities and Exchange Commission, including but not limited to those contained in our most recent Form 10-K and subsequent Forms 10-Q. We incorporate herein the discussion of those factors. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of today. We undertake no obligation to update or revise the information provided herein, whether as the result of new information, future events or circumstances or otherwise.

Agenda

News and Background

About the Test

About the Study

Study Results

Next Steps

Validation Study Overview

- Overall purpose of study was to validate the company's colorectal cancer and pre-cancer screening test panel
- The study was a part of an overall process of technology development and marker selection
- Validation study included a specificity study, followed by training and test sets, altogether including 1,178 samples

Strong results, exceeded pre-cancer detection target

Summary of Validation Study Results

Combined Training & Test Sets

85%

sensitivity
cancer

88% specificity

64%

sensitivity
pre-cancer
(>1cm)

Clinical Significance of Study Results

- Cologuard™ assay has real potential as a colorectal cancer screening tool
- No non-invasive product exists that can detect 60% of pre-cancerous polyps
- Test may assist gastroenterologists in finding more pre-cancerous polyps and colorectal cancers
- Simple, affordable, patient-friendly nature of test is key

NOTE: This product is currently an investigational device, is not FDA approved and is currently not commercially distributed.

Non-Invasive Colorectal Cancer Detection is Difficult

- Long road to positive results
  - Marker challenges: methylation markers are key
  - Technology challenges: most detection methods won't work reliably
  - QuARTS™ technology is a big deal
  - Challenging DNA extraction from stool
- Other non-invasive (fecal blood & blood DNA) methods suffer from poor sensitivity for cancer, worse for pre-cancer

Significant progress made in last 12 months

The Exact Sciences' Solution: 3 Distinct Pathways

DNA methylation markers

+

DNA mutation markers

+

Hemoglobin marker

Single Test Result

If positive,
refer to colonoscopy

Methodical Product Development Approach

Sequencing Study

- 32 methyl. Markers
- Narrowed markers to 9
- Unpublished data
- Generated IP on methylation markers

Tissue Study

- 9 markers
- With 4-marker subset, 100% of cancers and pre-cancers detected at 100% specificity
- AACC poster

Pilot Study

- 3 methyl. markers
- 118 total samples
- AACR abstract submission

Validation Study

Specificity Study

- 500 samples

Training Set

- 456 samples

Test Set

- 222 samples

Validation Study Overview

- Goal of study was to validate technology, marker selection and evaluate clinical performance prior to beginning pivotal clinical trial
- 1,178 stool samples processed and analyzed
- Study conducted at Exact Sciences and Mayo Clinic
- All training and test set samples were blinded and analyzed by Mayo biostatistician

Validation Study Samples

- Tough samples to find: Exact had access to rare samples
- Five different collection & storage protocols
- Samples collected and stored at -80°C over last 7 years
- Varying stool processing protocols by site
  - Preservative-to-stool dilution ratio varied from ~8:1 to 4:1
  - Sample processing

Overall Study Results

Overall Study Results

85%
sensitivity
cancer

64%
sensitivity
pre-cancer

88% specificity

Pilot Study

Submitted data to AACR on August 23, 2010

Test 118 samples

- 59 normal
- 29 adv adenomas
- 30 cancers

Pilot Study Results: with 3 markers

85% sensitivity cancer

55% sensitivity pre-cancer

90% specificity

Specificity Study

- Tested 500 samples to determine biases introduced by:
  - Age
  - Gender
  - Ethnicity
  - Geography
- Learned only age-related methylation bias occurs
- Developed age-related logistic regression
- Data assisted in setting methylation marker cutoffs

Training Set Results

Establish cutoff

Training Set Results

89%
sensitivity
cancer

64%
sensitivity
pre-cancer

89% specificity

Test Set Results

Independently assess test performance

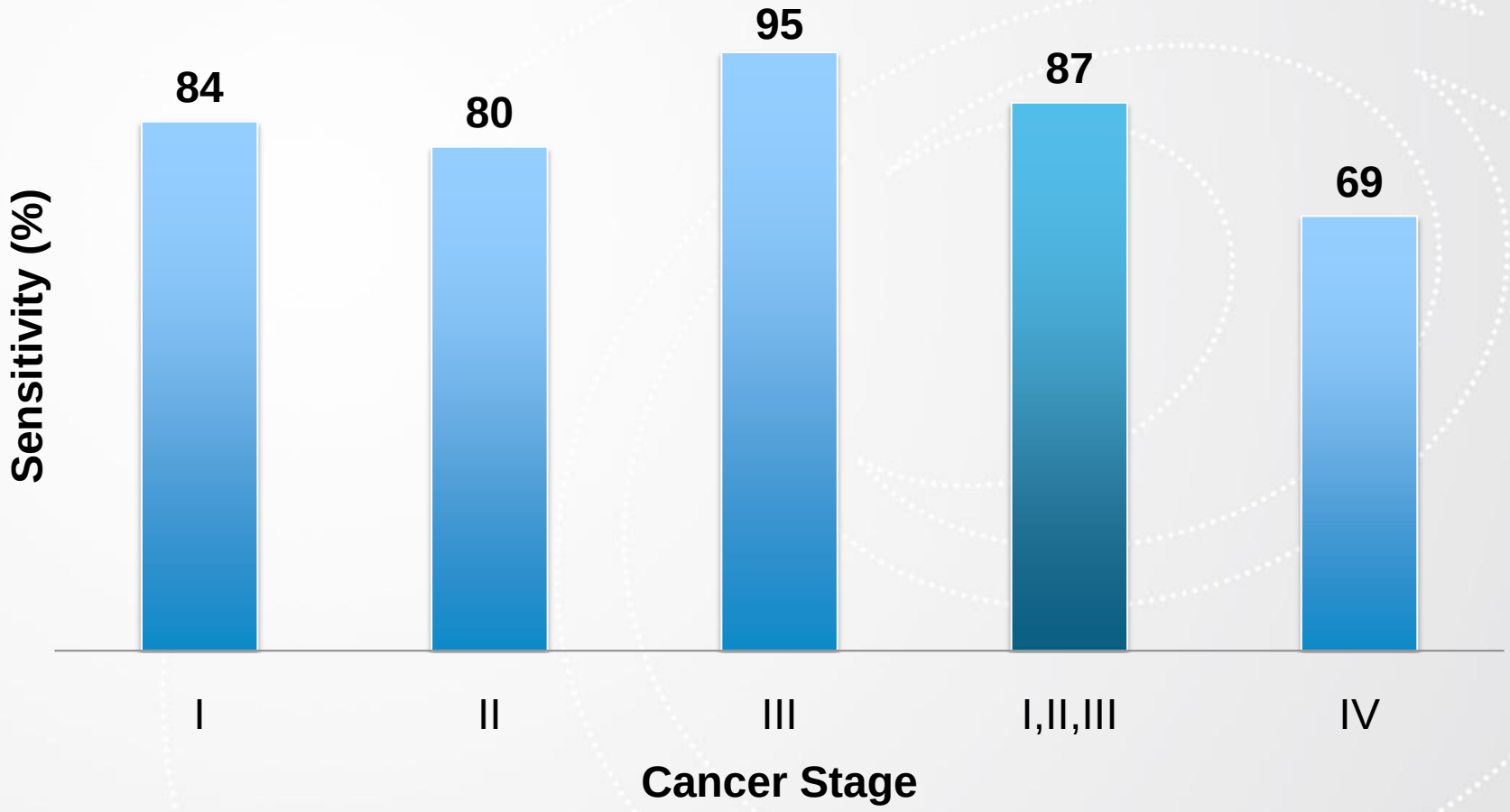
Test Set Results

78%
sensitivity
cancer

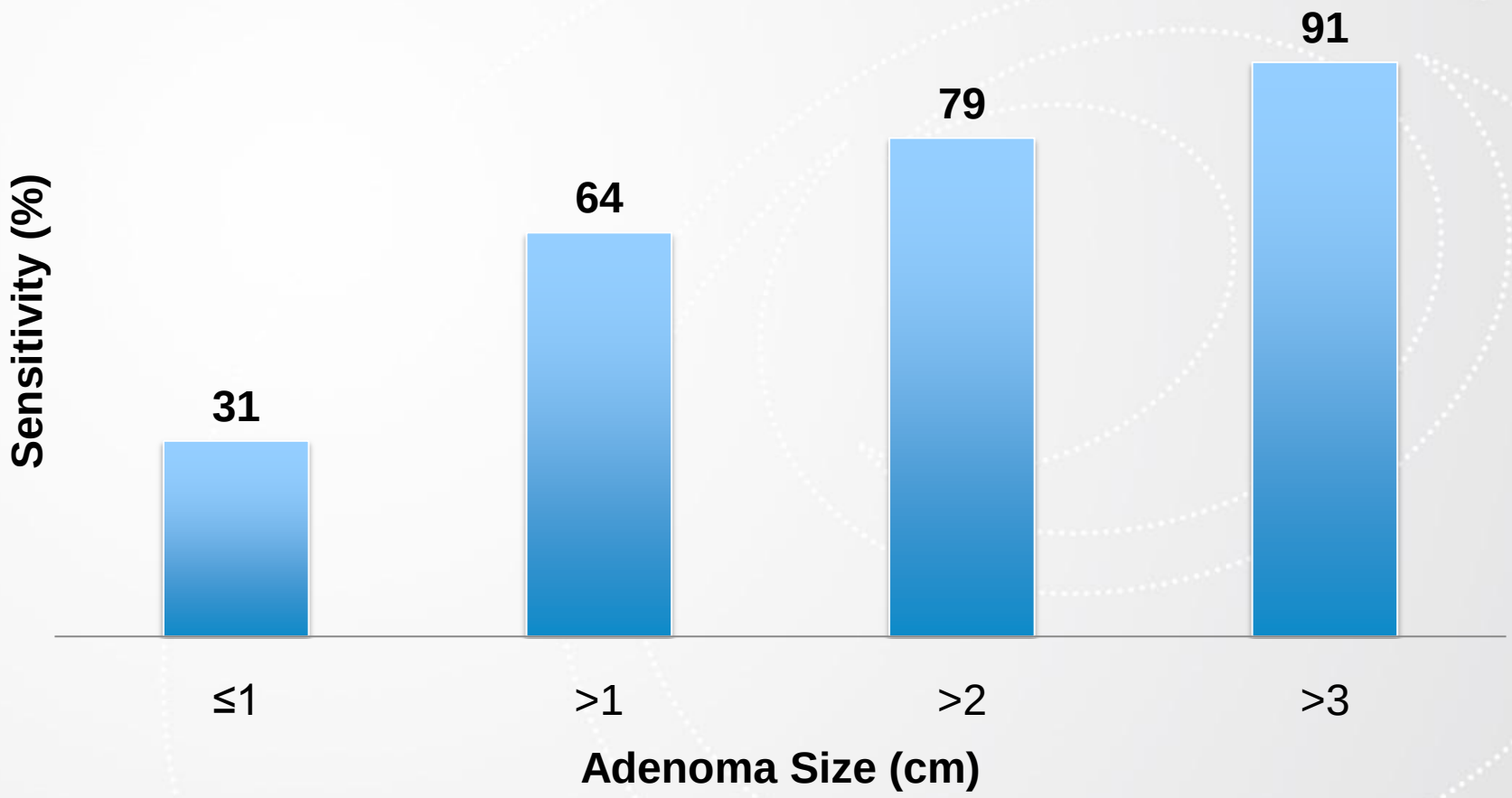
64%
sensitivity
pre-cancer

85% specificity

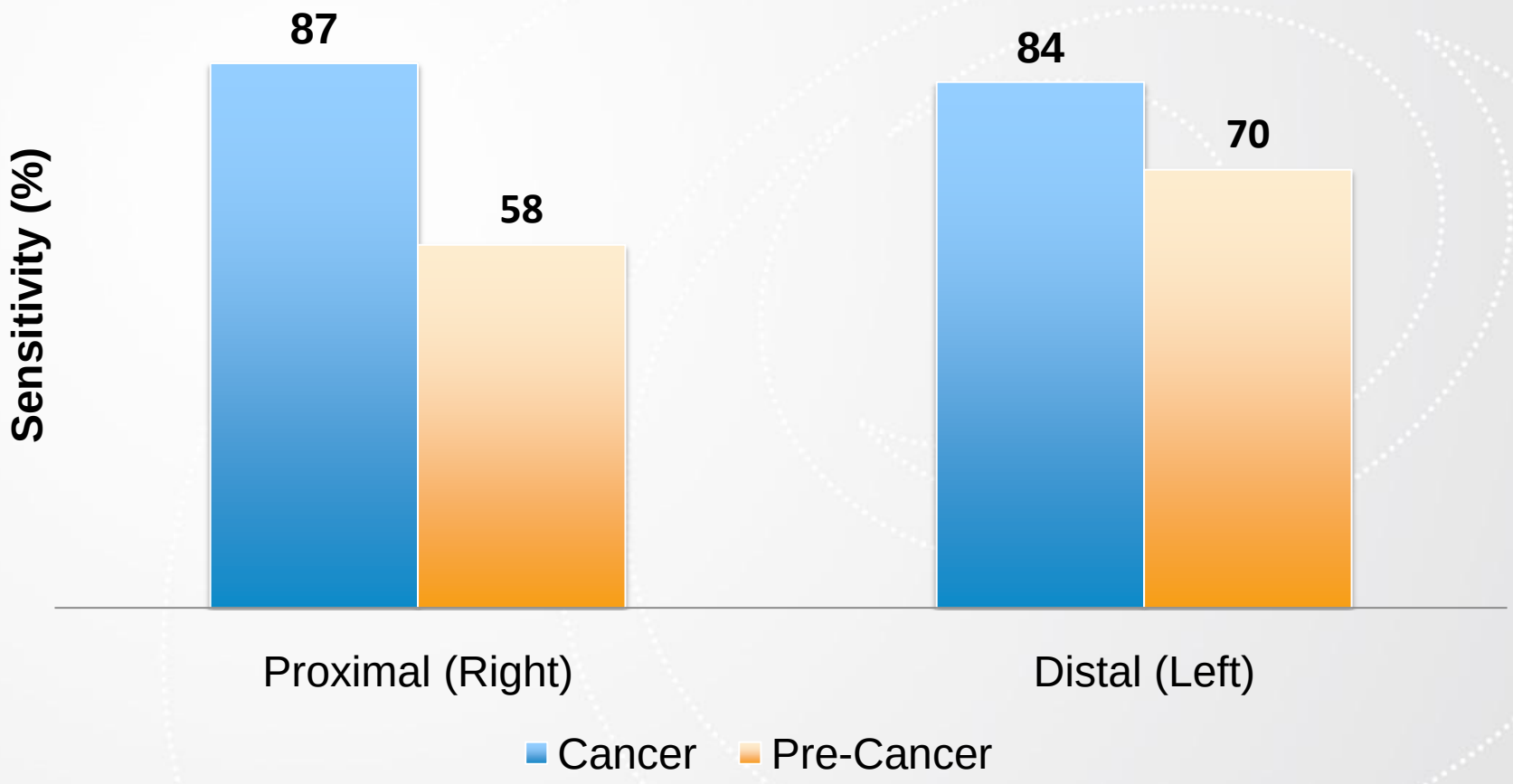
Sensitivity by Cancer Stage



Sensitivity by Adenoma Size



Sensitivity by Lesion Site



Overview of Validation Study Samples

Table 1: Participant and Lesion Characteristics

Characteristic	*Training Set (n=456)*	*Test Set (n=222)*	*Combined (n=678)*
Age, median (range)	61 (39-92)	60 (40-88)	60 (39-92)
Gender, % women	51	50	50
Recruited by Center,%			
Site 1	31	43	39
Site 2	19	9	13
Site 3	22	19	20
Site 4	8	6	7
Other	20	22	21
Colorectal Pathology			
None	197	96	293
All adenoma	89	44	133
Adenoma > 1cm (pre-cancers)	61	33	94
Size, med cm (range)	2.1 (1-6.0)	2.1 (1-8.0)	2.1 (1-8.1)
CRC	170	82	252
Stage I,II,III,IV	22 / 62 / 69 / 15	9 / 32 / 26 / 11	31 / 94 / 95 / 26

Technical Significance of Study Results

- First non-invasive test to detect > 50% of pre-cancerous polyps and 85% of cancers with high specificity
- Demonstration of QuARTS™ technology as a superior method to detect both methylation and mutation markers
- Selection and validation of a multi-marker panel
- Successful culmination of 12 months of focused product development work by Exact Sciences team

Clinical Significance of Study Results

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What Can Be Improved?

Product

- QC processes and assay reproducibility
- Improve DNA capture efficiency
- Improve mutation assays
- Improve hemoglobin detection
- Optimize multiplex methylation assays

Sample

- Single collection device
- Consistent buffer-to-stool dilution ratio
- Consistent stool processing protocol

Study

- Validated reagents and manufacturing process
- Prospectively collected samples
- Aged samples: validation study samples collected over past 7 years

Exact Sciences' Next Steps

Refine Product

- DNA extraction
- Detection assay
- Finalize collection kit

Implement Quality System

- GMP manufactured product
- Validated reagents

FDA/CMS Study Design

- Work with FDA and CMS to finalize
- Narrow list of agencies' questions

Pivotal Clinical Trial

- Enroll sites
- Side studies will help optimize pivotal study enrollment

Conclusions

- Tremendous results in achieving targets
- Strong pre-cancer detection
- Identified areas to improve product and clinical trial design
- Potential to improve clinical outcomes
- Achieved goals of validating assay, technology and markers

Thank you to the Mayo Clinic and Exact Sciences employees.

Thanks also to Dr. Bert Vogelstein, Dr. Sandy Markowitz, Rob Cascella and Stan Lapidus.

This company's progress would not be possible without them.

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Questions & Answers

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Appendix

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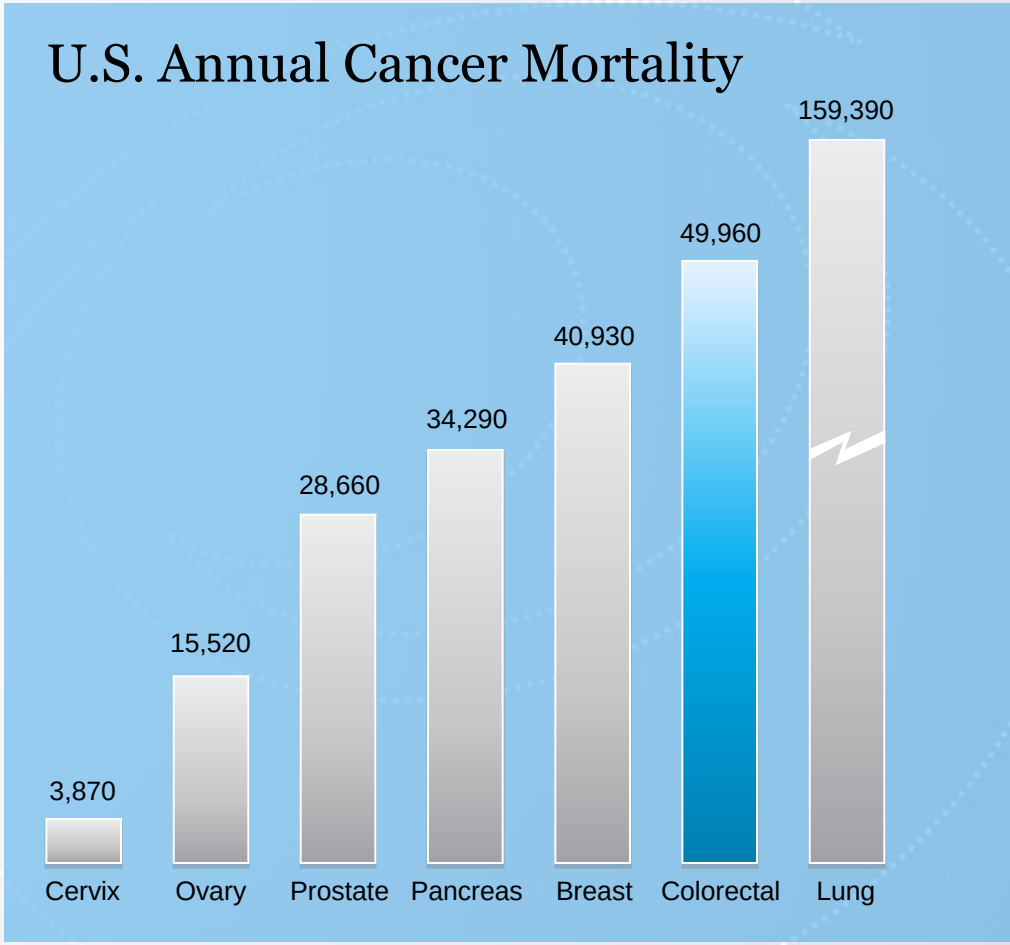
The Colon Cancer Epidemic

150,000
new cases in U.S.

50,000
deaths in U.S.

600,000
deaths worldwide



Source: ACS: Cancer Facts and Figures 2008