## LabCorp

## Analyst \& Institutional Investor Day

New York City, NY March 3 ${ }^{\text {rd }}, 2008$

## Introduction

This slide presentation contains forward-looking statements which are subject to change based on various important factors, including without limitation, competitive actions in the marketplace and adverse actions of governmental and other third-party payors.

Actual results could differ materially from those suggested by these forward-looking statements. Further information on potential factors that could affect the Company's financial results is included in the Company's Form 10-K for the year ended December 31, 2007, and subsequent SEC filings.

## Agenda

- General Overview
- Financial Results
- Licensing Overview
- Scientific Leadership
- Dave King
- Brad Hayes
- Brad Smith
- Dr. Andrew Conrad
- Break
- Questions and Answers


## The US Healthcare \& Clinical Laboratory Testing Market



Source: CMS, Office of the Actuary, G-2, and Company Estimates

## The Value of Lab Testing

In the past, lab testing was primarily used to diagnose disease
Now, lab testing now plays an increasingly large role in the full continuum of healthcare delivery

PREVENTION

DIAGNOSIS
TREATMENT
MONITORING


Sources of Growth in Projected Federal Spending on Medicare and Medicaid (Percentage of GDP)


## Lab Utilization and the Aging Population



Lab test utilization increases significantly with age and has increased for all age groups over time

Lab testing improves patient outcomes at dramatically reduced costs


LabCorp performs more than 10 million pap tests per year
For more examples on the value of lab testing, please visit www.labresultsforlife.org

## The Cost Effectiveness of Lab Testing

## Litholink Kidney Stone Disease Program

\$2,000+ Annual Cost Reductions Per Patient Per Year *


* Parks JH, Coe FL, Kidney International, vol. 50 (1996), pp. 1706-1712.


## What is LabCorp



## Strategic Focus Areas



## Scientific Leadership

- Cancer diagnostics and monitoring
- Advanced cardiovascular disease testing
- Advancement through acquisitions and licensing



## Managed Care

- Lab data enables better treatment and outcomes
- Partner to control high cost leakage
- Recognize value of lab services through appropriate pricing



## Customer Focus

- Quality and service driven culture
- First-time problem resolution
- Continuous enhancements in customer connectivity


## Industry Forces

- Focus on Outcomes and Cost Containment (Medical \& Drug)


Time

## Revenue Drivers Molecular Testing

## US molecular diagnostic testing market

Pharmacogenetic tests aren't expected to see aggressive revenue growth until around 2010.


Source: Kalorama Information

## Revenue Drivers

## Pharmacogenetics

## Projected number of pharmacogenetic tests in US by indication

Neuro-psychiatric disorders, for which there are few means of diagnosis, are expected to dominate pharmacogenetic testing.


Source: Kalorama Information

## EBIIPA Margin Growth Drivers

1. Increased volumes through fixed-cost infrastructure
2. Larger number of esoteric tests offered, more esoteric tests ordered


- Improved patient experience and data capture
- Improvement in collections / bad debt


## LabCorp's Investment and Performance Fundamentals

- Industry-leading EBITDA margins
- Significant free cash flow
- Focus on returning value to shareholders
- Strategic acquisitions
- Organic growth opportunities
- Share repurchase
- \$425.8 Million available as of 12/31/07
- Flexibility for future growth opportunities


## Financial Results

## Five-Year Revenue and EPS Trend

## Revenue CAGR of 8.5\% - Diluted EPS CAGR of 18.6\%



1. Excluding the $\$ 0.09$ per diluted share impact in 2005 of restructuring and other special charges, and a nonrecurring investment loss.
2. Excluding the $\$ 0.06$ per diluted share impact in 2006 of restructuring and other special charges.
3. Excluding the $\$ 0.25$ per diluted share impact in 2007 of restructuring and other special charges.

## Five-Year OCF and EBIDTA Margin Trend

## OCF CAGR of 6\% - EBITDA Margin Growth of 210 bps



1. Includes approximately $\$ 50$ million of benefit from one-time tax credits recorded in 2003.
2. Excluding the impact in 2005 of restructuring and other special charges and a nonrecurring investment loss.
3. Excluding the impact in 2006 and 2007 of restructuring and other special charges
4. As a result of adopting FASB 123(R) in 2006, the Company recorded incremental stock compensation expense of $\$ 23.3$ and $\$ 26.7$ in 2006 and 2007, respectively.

(1) Excludes restructuring and other special charges of $\$ 7.7$ and $\$ 12.3$ million recorded by the Company in the fourth quarter of 2006 and 2007, respectively.
(2) Excludes the $\$ 0.04$ and $\$ 0.06$ per diluted share impact of the restructuring and other special charges recorded in the fourth quarter of 2006 and 2007, respectively.

# Full Year Results 

## Revenue EBITDA ${ }^{(1)}$ <br> EBITDA Margin Diluted EPS ${ }^{(2)}$

| 12/31/2006 | 12/31/2007 | +(-) |
| :---: | :---: | :---: |
| \$ 3,590.8 | \$ 4,068.2 | 13.3\% |
| \$ 935.7 | \$ 1,071.3 | 14.5\% |
| 26.1\% | 26.3\% | 20 |
| \$ 3.30 | \$ 4.18 | 26.7\% |

(1) Excludes restructuring and other special charges of $\$ 13.4$ and $\$ 50.6$ million recorded by the Company in 2006 and 2007, respectively.
(2) Excludes the $\$ 0.06$ and $\$ 0.25$ per diluted share impact of the restructuring and other special charges by the Company in 2006 and 2007, respectively.

## 2007 Fourth Quarter Financial Achievements

- Diluted EPS of \$1.04 (1)
- EBITDA margin of $25.7 \%$ of net sales ${ }^{(2)}$
- Operating cash flow of $\$ 240.4$ million
- Increased revenues 11.9\% (11.0\% volume; 0.9\% price)
- Repurchased approximately $\$ 403.4$ million of LabCorp stock
(1) Excludes the $\$ 0.06$ per diluted share impact of the restructuring and other special charges recorded in the fourth quarter of 2007.
(2) Based on EBITDA of $\$ 258.7$ million, excluding the $\$ 12.3$ million impact of restructuring and other special charges recorded in the fourth quarter of 2007.


## 2007 Full Year Financial Achievements

- Diluted EPS of \$4.18 ${ }^{(1)}$
- EBITDA margin of 26.3\% of net sales ${ }^{(2)}$
- Operating cash flow of $\$ 709.7$ million
- Increased revenues 13.3\% (12.3\% volume; 1.0\% price)
- Repurchased approximately $\$ 924.2$ million of LabCorp stock
(1) Excludes the $\$ 0.25$ per diluted share impact of the restructuring and other special charges recorded in 2007.
(2) Based on EBITDA of $\$ 1,071.3$ million, excluding the $\$ 50.6$ million impact of restructuring and other special charges recorded in 2007


## Revenue by Payor 2007



## Revenue by Business Area 2007 (mmillions)

Histology (Non-Pap) \$325.1 (8\%)


## Revenue Mix by Business Area



1) EBITDA represents earnings before interest, income taxes, depreciation, amortization, and nonrecurring charges, and includes the Company's proportional share of the underlying EBITDA of the income from joint venture partnerships. The Company uses EBITDA extensively as an internal management performance measure and believes it is a useful, and commonly used measure of financial performance in addition to earnings before taxes and other profitability measurements under generally accepted accounting principles ("GAAP"). EBITDA is not a measure of financial performance under GAAP. It should not be considered as an alternative to earnings before income taxes (or any other performance measure under GAAP) as a measure of performance or to cash flows from operating, investing or financing activities as an indicator of cash flows or as a measure of liquidity. The following table reconciles earnings before income taxes, representing the most comparable measure under GAAP, to EBITDA for the three-month period and year ended December 31, 2007 and 2006:

|  | Three Months Ended December 31, |  | Year EndedDecember 31, |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | 2007 | 2006 | 2007 | 2006 |
|  |  |  |  |  |
| Earnings before income taxes | \$186.9 | \$ 169.8 | \$ 802.3 | \$720.9 |
| Add (subtract): |  |  |  |  |
| Interest expense | 18.8 | 12.4 | 56.6 | 47.8 |
| Investment income | (2.1) | (3.3) | (5.4) | (7.7) |
| Other (income) expense, net | (0.1) | 0.9 | 1.4 | 2.8 |
| Depreciation | 27.4 | 26.0 | 106.4 | 102.2 |
| Amortization | 14.3 | 13.2 | 54.9 | 52.2 |
| Restructuring and other special charges | 12.3 | 7.7 | 50.6 | 13.4 |
| Joint venture partnerships' depreciation |  |  |  |  |
| and amortization | 1.2 | 1.0 | 4.5 | 4.1 |
|  |  |  |  |  |
| EBITDA | \$258.7 | \$ 227.7 | \$ 1,071.3 | \$935.7 |
|  |  |  |  |  |



- Strategic enhancement of LabCorp's scientific capabilities through partnerships, licenses and various other types of contractual relationships
- Licensing is mainly focused on acquiring the rights and capabilities for novel tests that the scientific team has identified
-Licensing is focused on test development, not research


## New Test Selection

## Primary Focus Items

- Provides actionable result (clinical utility)
- Addresses unmet medical need (clinical utility)
- Degree of scientific and clinical support (clinical validity)
- Cost effective to perform


## Secondary Focus Items

- Market potential
- Intellectual property position
- Partner's involvement
- Regulatory requirements
- Access to clinical samples
- Analytical validation and performance characteristics


## PARTNER

| ARCA Discovery | Companion Diagnostics (CVD) |
| :--- | :--- |
| Celera Diagnostics | Breast Cancer |
| Duke University | Lung Cancer |
| Exact Sciences | Colon Cancer |
| Intema Ltd. | Prenatal Testing |
| Ipsogen | Molecular Diagnostics |
| Medco Health Solutions | Companion Diagnostics |
| SmartGene | Bioinformatics Tools |
| Third Wave Technologies | Companion Diagnostics (CVD) |
| Veridex | Prostate Cancer |
| Yale University | Ovarian Cancer |

## Areas Of Interest

## CLINICAL AREA

## SPECIFIC OPPORTUNITIES

| Companion Diagnostics | Oncology <br> Cardiovascular Disease <br> Neural and Degenerative Diseases Psychiatry |
| :---: | :---: |
| Oncology | Chemotherapy Selection <br> Lung Cancer Prognosis <br> Prostate Cancer Prognosis <br> Bladder Cancer Prognosis/Recurrence <br> Applications Related to Circulating Tumor Cells |
| Autoimmune | Rheumatoid Arthritis <br> Lupus <br> Colitis <br> Inflammatory Bowel Disease |
| Cardiovascular Disease | Risk Assessment Pre-Diabetes |
| Neurological | Autism |
| Infectious Disease | New Platform Technologies |

LabCorp

Scientific Leadership

## The Healthcare conundrum

- Our perception of what is important to our health does not match reality
- Most people are too concerned with issues that are unlikely to have any effect on their lives and ignore the real issues
- Science can help change this phenomenon


## The Facts

Fact: The Mad Cow Disease scare reduced beef consumption more profoundly than a series of comprehensive publications that demonstrated that transfats, cholesterol and other animal fats found in red meat increased the risk of heart disease and cancer

Fact: Mad Cow Disease has not killed anyone in America

- Fact: Heart Disease and cancer kill more than 1,000,000 people in America every year
- Solution: The incidence, prevalence and mortality associated with these diseases could be profoundly impacted by prevention and screening and appropriate treatment


## the US Healthcare \& Clinical L?boratory Testing Market



Source: CMS, Office of the Actuary, G-2, and Company Estimates

## The Value of Lab Testing

Sources of Growth in Projected Federal Spending on Medicare and Medicaid (Percentage of GDP)



## LabCorp's Unique Strategic Position



## Sample

## Bio-Repository

Biomarker Identification

- The number of genes associated with disease has doubled in the past five years
- The number of whole genome association studies continues to grow exponentially as the cost per genotype has dropped from $\$ 1$ to $\$ 0.001$ in the past five years


Physicians \& Payors



- Approximately $\mathbf{2 0 \%}$ of compounds in clinical trials have associated biomarkers
- The percentage of oncology drugs in clinical trials having associated biomarkers has increased from $10 \%$ to $40 \%$ in the past five years
- Spend on biomarker discovery has increased tenfold since 2003 and now exceeds $\$ 1$ billion per year
- Biomarkers are now included on 16 FDA approved drug labels
- The number of pharmacogenetic tests in the U.S. is expected to grow more than $300 \%$ by 2013



## LabCorp Resources

- Relationships with academic institutions (Duke, Yale)
- A robust Clinical Trials organization that has substantial relationships with pharmaceutical companies.
- Tandem Labs gives a GLP Metabolomics and IA discovery. Centers of Excellence (CMBP, NGI, US Labs) provide platforms for biomarker discovery in heavily regulated environments
- Our new 10,000,000 sample bio-repository in collaboration with DCRI
- Our industry leading relationships with managed care
- Remarkable technology and world class science

1) Genomics, Transcriptomics, Proteomics and Metabolomics all become the framework for the discovery of new diagnostic tests
2) We will present our algorithm of new bio-marker and companion diagnostic development, and provide specific examples
3) We will demonstrate a model where we are working with managed care to adopt a new approach to the use of laboratory medicine

## Path to Discovery DNA, RNA, Protein



## Discovery Techniques ompanion Diagnostics/Bio-markers

Discovery


Failure rate of bio-marker candidates expected to be similar to failure rate of drug candidates

## Cenomme Mide Association Studies (GWAS)

## Unbiased genome wide approach using 1000's of individuals across very high density SNP chip arrays

Illumina 370k 550k/650kY
1 million ~95\%

## Affymetrix 100k 500k

1 million ~93\%


Candidate region


Candidate genes


## Whole-Genor Amyotrop

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David Letizia, M.S., Shar
Todd Levine, M.D., Tuli Tahseen Mozaffar, M.D.,

Anril MrVev M D A


## The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812
AUGUST 30, 2007

Risk Alleles for Multiple Sclerosis Identified by a Genomewide Study

The International Multiple Sclerosis Genetics Consortium*

## Jacques Fell

 Mike Weale Alessandro Simon Mall Josiane Wyl Andrew J. $N$Genome-wide association study identifies new
susceptibility loci for Crohn disease and implicates autophagy in disease pathogenesis
John D Rioux ${ }^{1,2}$, Ramnik J Xavier ${ }^{3}$, Kent D Taylor ${ }^{4}$, Mark S Silverberg ${ }^{5}$, Philippe Goyette ${ }^{1}$, Alan Huett ${ }^{3}$, Todd Green ${ }^{2}$, Petric Kuballa ${ }^{3}$, M Michael Barmada ${ }^{6}{ }^{6}$, Lisa Wu Datta ${ }^{7}$, Yin Yao Shugart ${ }^{8}$, Anne M Griffiths ${ }^{9}$,
Stephan R Targan ${ }^{4}$, Andrew F Ippolitit ${ }^{4}$, Edmond-lean Bernard ${ }^{10}$, Ling Mei ${ }^{4}$ Dan L Nicolae ${ }^{11}$, Stephan R Targan ${ }^{4}$, Andrew F Ippolitit ${ }^{4}$, Edmond-Jean Bernard ${ }^{10}$, Ling Mei ${ }^{4}$, Dan L Nicolae ${ }^{11}$,
Miguel Regueiro ${ }^{12}$, L Philip Schumm ${ }^{13}$, A Hillary Steinhart ${ }^{5}$, Jerome I Rotter ${ }^{4}$, Richard H Duerr ${ }^{6,12}$, Judy H Cho ${ }^{14,16}$, Mark J Daly ${ }^{2,15,16} \&$ Steven R Brant ${ }^{7,8,16}$

## n of tag SNPs identifies rectal cancer at 8 q 24.21

Peter Broderick ${ }^{3,13}$, Zoe Kemp ${ }^{1,13}$, nan ${ }^{1}$, Wendy Wood ${ }^{3}$, Ella Barclay ${ }^{1}$, $r^{1}$, Richard Hubner ${ }^{3}$, Ruth Wild ${ }^{3}$, Steven Lubbe, Lynn Martin', Gabrielle Sellick, Emma Jaeger ${ }^{1}$, Richard Hubner, Ruth Wid ${ }^{3}$,
Andrew Rowan ${ }^{1}$, Sarah Fielding ${ }^{3}$, Kimberley Howarth ${ }^{1}$, the CORGI Consortium, Andrew Silver ${ }^{2}$, Wendy Atkin ${ }^{4}$, Kenneth Muir ${ }^{5}$, Richard Logan ${ }^{5}$, David Kerr ${ }^{6}$, Elaine Johnstone ${ }^{6}$, Oliver Sieber ${ }^{7}$, Richard Gray ${ }^{8}$, Huw Thomas ${ }^{9}$, Julian Peto ${ }^{10,11}$, Jean-Baptiste Cazier ${ }^{12}$ \& Richard Houlston ${ }^{3}$

## ITrascitiptomics and Proteomics

Black Swallowtail - larvae and
 butterfly same DNA


Same DNA but very different proteome

- One cannot understand the biology without understanding the proteome


## Biomarker Discovery in Cancer Cell Line - prpten quantitation in four phenotypes



## Biomarker Discovery in Cancer Cell Line - protem quantifation differentiates by phenotype



## Companion Diagnostics - Genomics

## ARCA: Bucindolol Response Polymorphisms

- Beta 1 SNP and Alpha 2c 12 BP deletion
- Determines safety and efficacy of class of drug (Beta blocker)
- Exclusive
- Amgen: Vectibix(TM) (panitumumab) K-ras somatic mutation.
- Rare mutation detected in tumor
- Requires AP and molecular techniques
- Contracted to perform trials
- GSK: HLA B 5701 Screening for Abacavir (Ziagen) Hypersensitivity
- 8\% of patients who take drug develop a rash. In some cases the reaction is severe
- Feb $8^{\text {th }}$ NEJM article Predict 1: definitive association with hypersensitivity, LabCorp performed all of the testing


## Bio-Marker Discovery

## Duke: Lung Cancer Markers. Exclusive

- A Spiral CT screening, of 31,567 people looking for heart disease revealed that approximately 800 had suspicious lesions. After biopsy, 412 had stage 1 lung cancer and equal number of patients had no malignant disease. For those with cancer, the ten year survival rate was $92 \%$. The patients who were biopsied but did not have cancer suffered a significant number of adverse events
- Four serum proteins-carcinoembryonic antigen, retinol binding protein, 1-antitrypsin, and squamous cell carcinoma antigen-were collectively found to correctly classify the vast majority of lung cancer and control patients
- The test decreases false positives and differentiates cancer from benign lesions of the lung


## Bio-Marker Discovery

## Yale: Ovarian Cancer Screening. Exclusive

- This year, approximately 20,180 women will be diagnosed with ovarian cancer, and 15,310 will die from the disease
- The Yale technology is based on a number of individual serum proteins associated with cancer biology. Each protein marker is individually analyzed and results evaluated to determine ovarian cancer status
- The test has nearly $100 \%$ positive predictive value


# Early Detection of Disease An Alternative Model 

Prevention and early detection are difficult because one needs to influence individual behavior

These are of paramount importance to our managed care partners and the healthcare system

- Strategic partner with WellPoint
- Our scientists have invented these next tests and we have filed for patent protection

Megsuming the Balance of DNA Damage and Repair. fifnout which way to go you have to know wherelyou are. Life is like a bath tub!


# nade from 4 distinct molecules. <br> Ther, is a finitic number of breakdown products 

| PHOSPHATE GROUP | SUGAR | BASES |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $\mathrm{O}^{-}$ | OH <br> Deoxyribose |  |  |

## A C G T

The damaged DNA makes an incorrect message which is translated into a bad protein which can cause secondary effects





## Meāsurn! the Balance of DNA Damage and Repair. To fthd out which way to go you have to know where you are



## DNA damage may be calculated using different measurements

Tail Length


Distance from center of comet head to end of tail

Tail Length
Tail Extent Moment

(Tail length) X (\% tail fluorescence ) 100

Avg distance of DNA migration

Olive Tail Moment


## Measurement of DNA Damage



# Fore enhanced comet assay photo. We canfell you your real DNA age 

## 60 Year Old



20 Year Old

Mreasming the Balance of DNA Damage and Repair. Tolfind fou which way to go you have to know where

## you are




2 Split into 3 equal cell populations

Patient Blood
1 Sample (white blood cells)


Negative control - no damage induced - assayed directly


Perform Comet Assay on all cell populations to quantify damage

Test Sample - incubate cells in 4 culture medium @ $37^{\circ} \mathrm{C}$ for $\geq 1$ hr. to allow DNA damage repair $\geq$

# Titrating $\mathrm{H}_{2} \mathrm{O}_{2}$ to induce DNA damage 

Jurkat E6-1 cell line

Negative Control


Tail Extent Moment
8.4
2.2
28.7
51.8
17.7
75.7
58.6
21.4
79.8
23.8
85.2

## Results with Carboplatin

10 Min. treatment / 6 hr Recovery


## Conclusions

We need to re-think the role of diagnostics in our healthcare system

Laboratory medicine will have an increasingly important role in prevention, screening, early diagnosis and treatment of chronic disease

Our assets and relationships uniquely enable us to discover and commercialize bio-markers and companion diagnostics
-The future is now
"Thank you for listening (it’s lonely in the lab)

