Nanosphere

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Forward-Looking Statements

Nanosphere cautions that statements included in this presentation that are not a description of historical facts may be forward-looking statements that are subject to risks and uncertainties. Actual results may differ materially from those set forth in this presentation due to the risks and uncertainties inherent in Nanosphere's business. These risks include, but are not limited to the degree of customer adoption of our new technologies and products; our ability to continue to develop new technologies and products; our ability to obtain timely regulatory approval for our products; our ability to successfully transfer our products from the development to the manufacturing stage; our ability to raise the additional capital needed, if any, before our operations reach break-even; competition from existing, and in some cases much more established, companies and technologies as well as new entrants into our market; and such other uncertainties and risks as are from time to time listed in our filings with the Securities and Exchange Commission. See, for example, Item 1A "Risks Factors" in our Annual Report on From 10-K for the year ended December 31, 2007. We are providing this information as of the date of this presentation and do not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

Overview

- **First nanotechnology enabled molecular testing platform capable of genomic *and* protein testing**
- **Verigene System addresses major limitations in existing technologies**
  - Genetic testing: Lower cost, faster turnaround times, easy-to-use platform
  - Protein testing: At least 100x greater sensitivity than immunoassays
  - High count multiplexing capabilities
- **Deep pipeline of highly differentiated molecular tests**
  - Verigene System and first genomic assays FDA cleared and launched in Q4 2007
  - Multiple genomic and ultra-sensitive protein tests in development
- **Substantial IP portfolio and rights to future technology from Northwestern University**
- **Management team with significant experience in the IVD market**

Nanotechnology Enabled Breakthroughs

Direct Genomic Detection

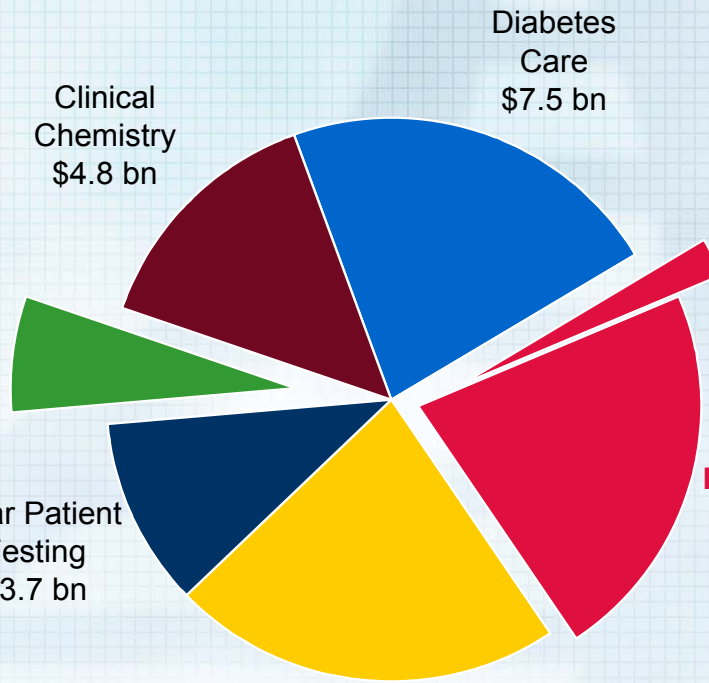
- Simple, inexpensive genetic tests
- Multiplex arrays for complex diseases
- Decentralization of molecular diagnostics

Ultra-sensitive Protein Detection

- Earlier detection of disease
- New biomarker validation
- New diagnostic tests

Our Market Opportunity

$34 billion Worldwide In Vitro Diagnostics (IVD) Market in 2006



Genomic Testing

Human Genetics
(~$650 mm / ~20+% growth)

STD & Infectious Disease
(~$550 mm / ~20+% growth)

Viral Load & Genotyping
(~$650 mm / ~12% growth)

Blood Screening
(~$450 mm / ~8% growth)

Protein Testing

PSA / Troponin I
(~$700 mm)

Cardiovascular disease

Cancer

Stroke

Kidney disease

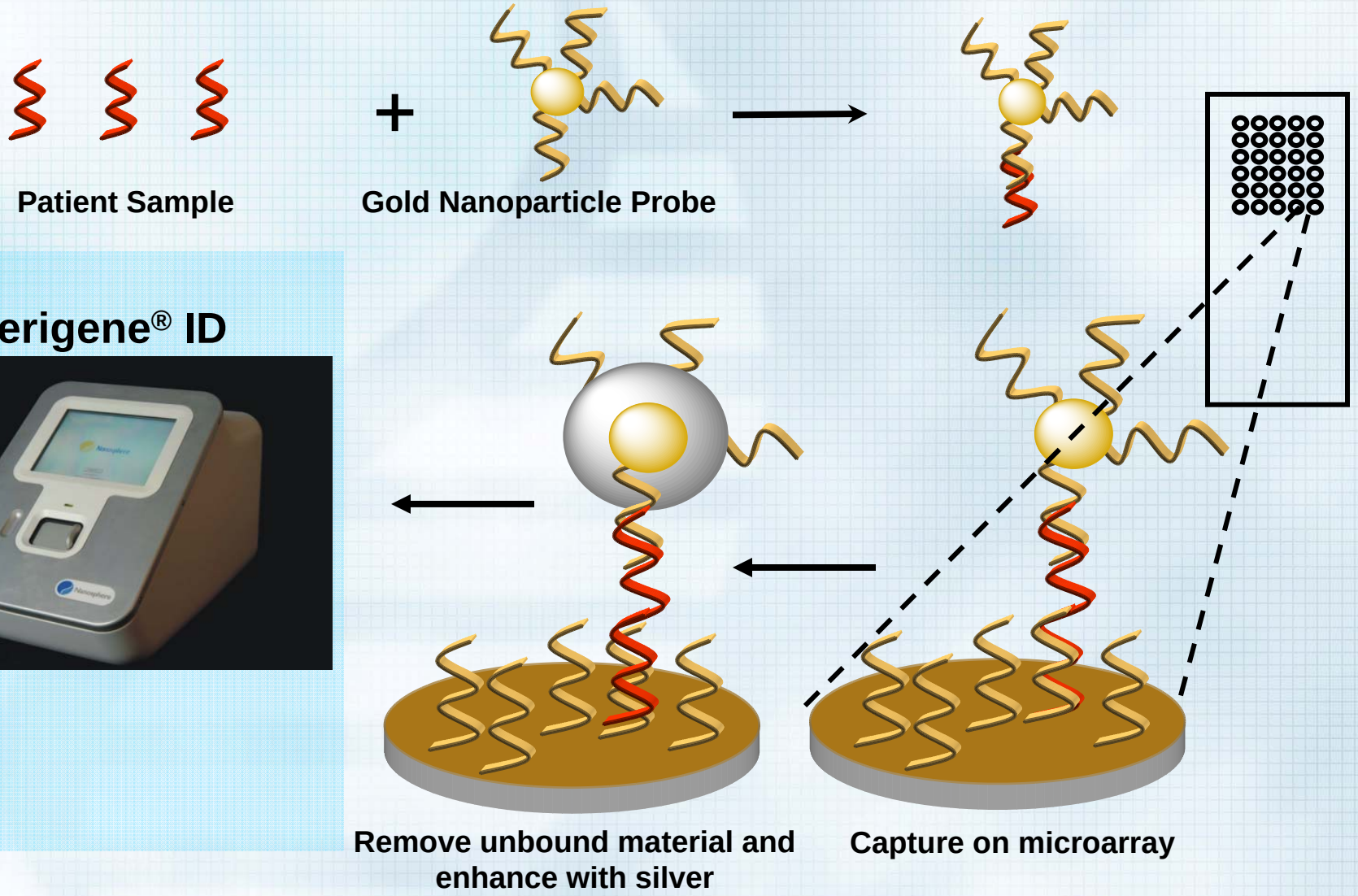
Alzheimer's

Sepsis

Prions

Sources: Boston Biomedical Consultants, Piper Jaffray Investment Research & Nanosphere estimates.

Direct Detection



The Verigene® System

System Features

- Self-contained, unit use test cartridge
- Microarray format for high count multiplex assays
- On board positive and negative controls
- Instrument controlled microfluidics
- Continuous quality monitoring

Meets Customer Requirements

- ✓ Low cost and complexity
- ✓ Minimal tech time
- ✓ On demand testing; rapid results
- ✓ No results interpretation required
- ✓ Direct genomic detection
- ✓ Ultra-sensitive protein detection

Molecular Testing Systems in the Market Today

PCR and RT-PCR Systems

- Limited multiplexing
- Contamination
- Batch process
- Hands-on tech time

Post-PCR Multiplex Systems

- Post-PCR systems
- Lengthy work flow processes
- Multiple systems
- Hands-on tech time
- Batch process

Other

Signal Amp
Isothermal Amp
Hybrid Capture
FISH

- Limited multiplexing
- Lengthy work flow process
- Batch process
- Long assay cycles
- Complex sample prep

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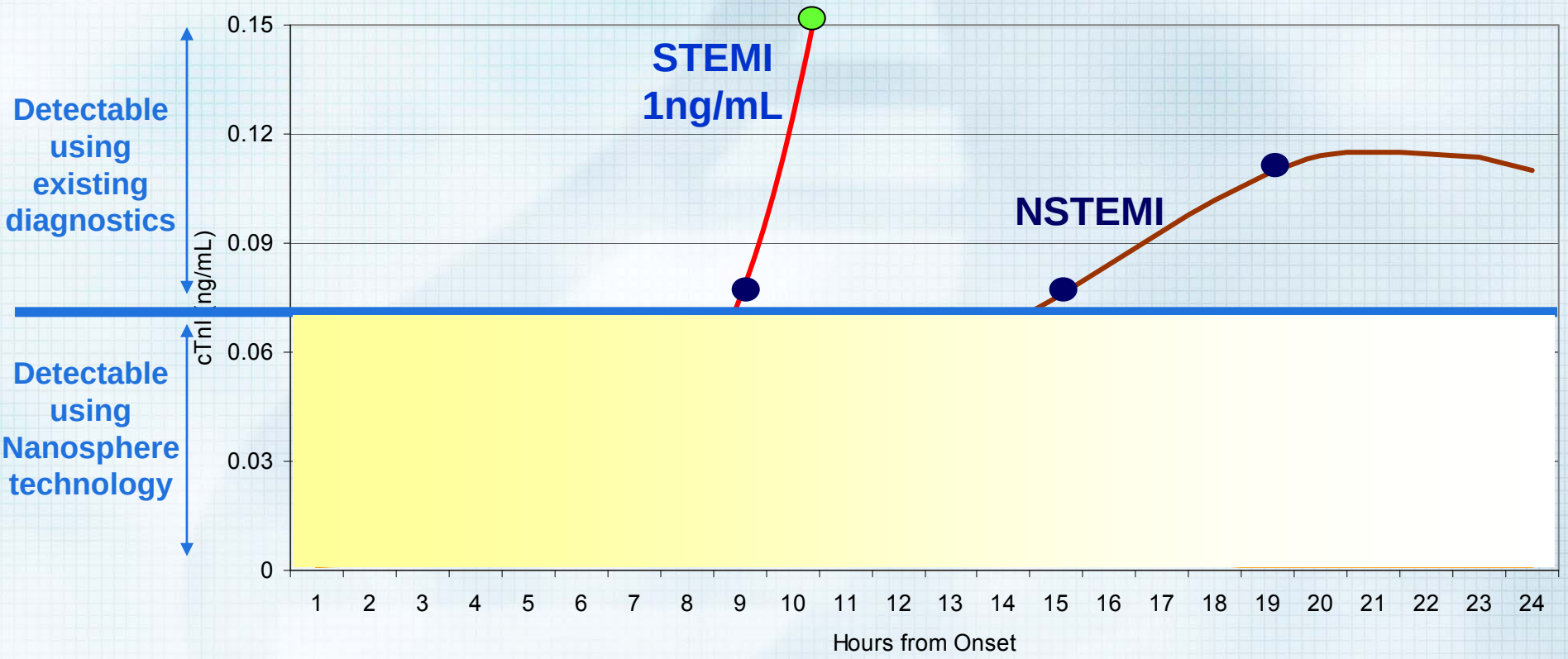
- **High count multiplex array**
- **90 minute assay**
- **Random access**
- **Minimal tech time**
- **Genomic and protein tests**
- **Verigene II will include automated sample prep**

Ultra-sensitive Protein Detection

Concentration		Molecules/Drop
10^{-3} – Millimolar	Colorimetric/Enzymatic Chemistry Blood Sugar (Glucose)	Quadrillions
10^{-6} – Micromolar		Trillions
10^{-9} – Nanomolar	ELISA & Chemiluminesence Troponin, CK-MB, BNP, βHCG	Billions
10^{-12} – Picomolar		Millions
10^{-15} – Femtomolar	**Nanosphere Technology** Cancer (ovarian, breast and many others), Alzheimer's Disease, Mad Cow, Pulmonary and Cardiovascular Disease	Thousands
10^{-18} – Attomolar		Tens
10^{-21} – Zeptomolar		<1

Cardiac Troponin I in the Diagnosis of Cardiovascular Disease

- Earlier detection of MI in the ER
- Early “rule out” in the ER
- Better risk stratification of patients
- Earlier detection of ACS
- Monitoring high risk chronic diseases such as diabetes, kidney disease, CHF and hypertension



Menu Expansion Programs

	Human Genetics & Pharmacogenomics	Infectious Diseases	Protein Biomarkers
On the Market	➢Hypercoagulation ➢Warfarin metabolism		
Clinical Trials	➢Cystic fibrosis ➢Hemochromatosis-HFE	➢Respiratory – 1st Gen	➢Cardiac Troponin I
Development		➢Respiratory – 2nd Gen[1] ➢Herpes Simplex Virus[1]	➢PSA—recurrent cancer
Prototyping		➢MRSA[1] ➢HPV[1]	
Pilot Testing			➢RA – Anti-CCP ➢Cancer (p53)
Feasibility Research	➢Chemotherapy drugs ➢Psychiatric drugs ➢Pain management drugs	➢C. difficile[1]	➢Thyroglobulin – recurrent thyroid cancer ➢Alzheimer's disease

1 – Requires Verigene II

Menu Driven Business

	Market Opportunity
Hypercoagulation Panel	**~ $ 65 million**
Warfarin Metabolism	**~ $ 5 million**
Potential 2 million test market ~$100 million	
	2008
Cystic fibrosis ~ 1.7 million tests/year	**~ $120 million**
Respiratory Panel ~ 2 million tests/year	**~ $150 million**
30-50 mm infected; 15-25 mm tested (strips); 2 mm MxDx	
HFE – 1 in 250 has the disease; market development	**~ $ 25 million**
Will be only FDA cleared product; ASR discontinued	
Cardiac troponin ~ 35 million tests per year (US)	**~ $700 million**
Changes the practice of medicine	
Monitoring co-morbidities could double the market	
	2009
Verigene II – sample-to-result automation	

(1) – Company estimates based upon various industry sources

Commercialization Strategy – Customer Focus

- **Established Molecular Laboratories**
  - 350-450 in the United States associated with major hospitals
  - Regional reference and pathology labs
- **Community hospitals**
  - 4,000+ in the United States
  - Increased awareness and interest in value of molecular diagnostics capabilities
  - Cost, complexity and resource requirements of existing technologies have limited adoption
  - Cost effective, easy to use and versatile Verigene System enables adoption and fuels growth
- **Typical customer relationships**
  - Reagent rental agreements
  - System sales
  - Menu driven volume growth

Status of Our Business

- **Growing customer base**
  - 35 customers through Q2
  - Customer responses and experiences validate our value proposition
  - 80% success rate from demonstration through close
- **Customer and shareholder value driven by menu expansion**
  - Planned new product introductions over the next few quarters address market opportunity in excess of $1 billion
  - Verigene II incorporating sample-to-result automation directly addresses significant market need
- **Strong balance sheet**
  - $94 million cash at the end of Q2
  - Average quarterly cash consumption $9.2 million (past three quarters excludes IPO proceeds and expenses)

Investment Highlights

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