

2013 Analysis of the US Molecular Diagnostics Market: Emerging Opportunities, Supplier Shares, Country Forecasts, Innovative Technologies, and Competitive Landscape

<https://marketpublishers.com/r/2CB7735FD2CEN.html>

Date: April 2013

Pages: 880

Price: US\$ 7,600.00 (Single User License)

ID: 2CB7735FD2CEN

Abstracts

This report presents a comprehensive analysis of the US molecular diagnostics market, including:

Major issues pertaining to the US molecular diagnostics laboratory practice, as well as key economic, regulatory, demographic, social and technological trends with significant market impact during the next ten years.

An extensive review of DNA probe and biochip technologies, test formats, detection methodologies, trends in testing automation and amplification methods.

Ten-year test volume and reagent sales forecasts for the following categories:

Infectious Diseases

Genetic Diseases

Cancer

Paternity Testing/HLA Typing

Forensic Testing

Review of testing methodologies and instrumentation technologies.

Feature comparison of automated and semiautomated analyzers.

Sales and market shares of leading suppliers.

Over 60 specific opportunities for molecular diagnostic instruments, test systems, IT and auxiliary products.

Profiles of major suppliers, and emerging market entrants, including their sales, product portfolios, marketing tactics, technological know-how, new products in R&D, collaborative arrangements and business strategies.

Alternative market penetration strategies.

Potential market entry barriers and risks.

Business planning issues and concerns.

Contains 880 pages and 37 tables

Contents

INTRODUCTION

WORLDWIDE MARKET AND TECHNOLOGY OVERVIEW

- A. DNA Sequencing
 - 1. Introduction
 - 2. Sequencing Methods
 - 3. Autoradiography
 - 4. The Human Genome Project
 - 5. Sequencing Automation
 - 6. Image Scanners
 - 7. Fluorescent Detection
 - 8. Gene Profiling
 - 9. Gene Expression
 - 10. Polymorphism Screening
 - 11. Protein Interaction Networks
- B. DNA And RNA Probe Technology
 - 1. Basic Principles
 - 2. Probe Preparation
 - 3. The DNA Probe Test
 - a. Sample Preparation
 - b. Hybridization
 - c. Separation
 - d. Detection/Measurement
 - 4. Test Formats
 - a. Filter Hybridization
 - b. Southern Blot
 - c. Northern Blot
 - d. In Situ Hybridization
 - e. Others
 - 5. Labeling Techniques
 - 6. Amplification Methods
 - Polymerase Chain Reaction
 - Temperature Cyclers
 - PCR Variations
 - Immuno-PCR
 - QC-PCR

DAP-PCR

Strand Displacement Activation

TMA

Ligase Chain Reaction

Branched DNA

Hybridization Protection Assay

Nucleic-Acid Sequence-Based Amplification

Self-Sustained Sequence Replicase

Others

Ampliprobe

CAR

CAS

CPT

Dendritic Polymer Technology

ISO-CR

LAT

Probe Networks

RAMP

Repair Chain Reaction

Rolling Circles

Sequence Independent Gene Amplification

Sequence Initiation Reaction

SISPA

Solid Phase Amplification

C. Detection Technologies

1. Radioactive Methods

a. Overview

b. Major Isotopes

P-32

S-35

H-3

I-125

2. Non-Isotopic Methods

a. Enzymatic Labels

b. Chemical Labeling

Indirect Chemical Labeling

Direct Chemical Labeling

c. Fluorescence

d. Chemiluminescence

- e. Electrical Conductivity
- D. Instrumentation Review
 - 1. Abbott LCx
 - 2. Beckman Coulter/Biomek FK
 - 3. Becton Dickinson SDA
 - 4. Bio-Rad GeneScope
 - 5. Gen-Probe Tigris
 - 6. Roche Cobas Amplicor
 - 7. Tecan LS Series
- E. Biochips: Genosensors, Microarrays, and Labs-on-the-Chip
 - Liquid Transportation and Mixing
 - Separation
 - Reaction
 - Detection
- F. Pharmacogenomics
- G. Major Applications
 - 1. Microbiology/Infectious Diseases
 - a. Overview
 - b. Major Infectious Diseases
 - AIDS
 - Structure and Composition
 - Classification
 - AIDS Origins
 - Animal Lentivirus Systems
 - Virus Receptors
 - HIV Infections in Humans
 - Pathogenesis and Pathology
 - CD4T Lymphocytes and Memory Cells
 - Monocytes and Macrophages
 - Lymphoid Organs
 - Neural Cells
 - Viral Coinfections
 - Clinical Findings
 - Plasma Viral Load
 - Pediatric AIDS
 - Neurologic Disease
 - Opportunistic Infections
 - Cancer
 - Immunity

- Virus Isolation
- Serology
- Viral Nucleic Acid/Antigen Detection
- Epidemiology
 - Worldwide Spread of AIDS
 - United States
 - Routes of Transmission
- DNA Probes
 - Overview
 - Quantitative PCR
 - In Situ PCR
 - Needed Improvements
- Viral Load/Drug Resistance Testing
- Genotype and Phenotype Testing
- Blood Banking Considerations
- Adenovirus
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
 - Adeno-Associated Viruses (AAV)
- Anthrax/Bacillus Anthracis
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Babesiosis
 - Background
- BEA and Other Bartonella Diseases
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Chagas Disease
 - Background
- Campylobacter
 - Background
 - Diagnostic Tests
 - Culture Identification
 - Vaccines and Drugs
- Chlamydia
 - Background

- Chlamydia psittaci
- Chlmaydia pneumoniae
- Chlamydia trachomatis
- Diagnostic Tests
- Vaccines and Drugs
- Creutzfeldt-Jakob's Disease
 - Background
 - Blood Transmission
 - Diagnostic Tests
 - Major Commercial and Academic Players
 - Bayer
 - Disease Sciences/Bio Tec Global
 - Imperial College School of Medicine
 - Ortho-Clinical Diagnostics
 - Pall
 - ProMetic Life Sciences
 - Proteome Sciences/Idexx
 - Q-One Biotech
 - Serono
 - U.S. Agricultural Research Service
 - Drugs
 - Vaccines
- Cytomegalovirus
 - Background
 - Chorioretinitis
 - Gastrointestinal
 - Central Nervous System Disease
 - Diagnostic Tests
 - Vaccines and Drugs
- Ebola Virus
 - Background
 - Epidemiology
 - Clinical Syndromes
 - Diagnostic Tests
 - Vaccines and Drugs
- EchoVirus
 - Background
 - Acute Aseptic Meningitis
 - Encephalitis

- Exanthems
- Respiratory Disease
- Myopericarditis
- Neonatal Infections
- Diagnostic Tests
- Vaccines and Drugs
- Encephalitis
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Enteroviruses
 - Background
 - Diagnostic Tests
 - Viral Isolation and Identification
 - Antibody Tests
 - Vaccines and Drugs
- Epstein-Barr Virus
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Gonorrhea
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Hepatitis
 - Hepatitis A
 - Hepatitis B
 - Structure and Composition
 - Replication
 - Hepatitis C
 - Hepatitis D (Delta)
 - Hepatitis E
 - Hepatitis G
 - Hepatitis Infections Pathology
 - Clinical Findings
 - Laboratory Tests
 - Hepatitis A
 - Hepatitis B
 - Hepatitis C

- Hepatitis D
- Hepatitis E
- Virus-Host Immune Reactions
- Epidemiology
 - Hepatitis A
 - Hepatitis B
 - Hepatitis C
 - Hepatitis D (Delta)
- Vaccines and Drugs
- Herpes Simplex Virus
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Legionella
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
- Lyme Disease
 - Background
 - Clinical Description
 - Clinical Case Definition
 - Laboratory Criteria for Diagnosis
 - Case Classification
 - Diagnostic Tests
 - Vaccines and Drugs
- Malaria
- Mycoplasma
 - Background
 - Ureaplasma Urealyticum & Mycoplasma Hominis
 - Diagnostic Tests
 - Vaccines and Drugs
- Papillomaviruses/HPV
 - Background
 - HPV in Cancer
 - Cervical Neoplasm
 - Diagnostic Tests
 - Vaccines and Drugs
 - Prevention
- Parvovirus B19

Background

Microbiology

Epidemiology

Clinical Syndromes

Erythema Infectiosum (Slapped Cheek)

Adult Polyarthropathy

Transient Aplastic Crisis

Transient Pancytopenia

Red Cell Aplasia in Immunocompromised

Perinatal Infections

Diagnostic Test

Vaccines and Drugs

Pneumonia

Background

Diagnostic Tests

Vaccines and Drugs

Polyomaviruses

Background

Diagnostic Tests

Vaccines and Drugs

Salmonellosis

Background

Diagnostic Tests

Vaccines and Drugs

Shigellosis

Background

Diagnostic Tests

Vaccines and Drugs

Streptococci

Background

Diagnostic Tests

Vaccines and Drugs

Group A Streptococci

Group B Streptococci

Toxoplasmosis

Background

Diagnostic Tests

Vaccines and Drugs

Tuberculosis

- Background
- Diagnostic Tests
 - Microscopic Characteristics
 - Cultural Characteristics
 - Skin Tests
 - MDRTB
- Vaccines and Drugs
- West Nile Virus
 - Background
 - Clinical Syndromes
 - Diagnostic Tests
 - Vaccines and Drugs
- Yersinia
 - Background
 - Diagnostic Tests
 - Vaccines and Drugs
 - c. Antibiotic Susceptibility
- 2. Cancer Testing
 - a. Overview
 - b. Major Cancer Types
 - Prostate
 - Lung
 - Colon and Rectum
 - Breast
 - Skin
 - Uterine
 - Leukemia
 - Oral
 - c. Oncogenes
 - Abl/abl-bcr
 - AIB1
 - BCL-2
 - BRCA1
 - CD44
 - C-fos
 - C-myb
 - C-myc
 - CYP17
 - Erb-B

HPC1
N-myc
P40
P51
P53
PIK3CA
PTI-1
Ras
Reg
Sis
Src

3. Genetic Diseases

- a. Overview
- b. Nucleic Acid Amplification
- c. Chromosome Imaging
- d. Genomics Technologies
- e. Proteomics Technologies
- f. Current Pharmacogenomic Tests
- g. Future Pharmacogenomic Testing
- h. Major Diseases
 - Achondroplasia
 - Autosomal Dominant Polycystic Kidney Disease
 - Cancer
 - Cosmetogenomics
 - Cystic Fibrosis
 - Down's Syndrome
 - Duchenne and Becker Muscular Dystrophy
 - Factor V (Leiden)
 - Factor IX Deficiency
 - Fragile X Syndrome
 - Heart Disease
 - Hemochromatosis
 - Hemophilia
 - Huntington's Disease
 - Maternal-Fetal Incompatibility
 - Multiple Endocrine Neoplasia
 - Phenylketonuria (PKU)
 - Polycystic Kidney Disease (PKD)
 - Prenatal Screening

- Retinitis Pigmentosa
- Retinoblastoma
- Sickle Cell Anemia
- Spinal Muscular Atrophy
- Vitamin B12 Metabolism
- i. Social Issues and Concerns
- 4. Forensic Testing
 - a. Overview
 - b. Multilocus and Single Locus Probes
 - Multilocus Probes
 - Single Locus Probes
 - PCR and RFLP
 - c. The FBI
 - d. DNA Profile Data Banks
 - U.S.A.
 - U.K.
 - e. Judicial Implementation
 - f. Major Crime Categories
 - g. Factors Contributing to the DNA Probe Market Expansion
 - Technology Availability
 - Use of Hair as Evidence
 - h. Wildlife Forensics
- 5. Paternity Testing/HLA Typing
- 6. Other Applications
 - a. Disease Susceptibility Testing
 - b. Cardiovascular Diseases
 - c. Diabetes
 - d. Alzheimer's Disease
 - e. Periodontal Disease
 - f. Plasma Purification
 - g. Organ Transplantation
 - h. Water Contamination
 - i. Other
- H. Competing/complementing Technologies
 - 1. Monoclonal Antibodies/Immunoassays
 - 2. RNA Probes
 - 3. Two-Dimensional Electrophoresis
 - 4. Flow Cytometry

U.S.A.

- A. Executive Summary
- B. Business Environment
 - 1. Health Care Expenditures
 - 2. Cost Consciousness
 - 3. Reimbursement
 - 4. Industry Consolidation
 - 5. Managed Care
 - a. PPO
 - b. HMO
 - 6. Hospitals
 - 7. Admissions
 - 8. Length of Stay
 - 9. Industry Diversification
 - 10. Physician Demographics
 - 11. Population Aging
 - a. Chronic Illness
 - b. Disease Incidence
 - c. Susceptibility to Iatrogenesis
 - d. Multiple Illness Cases
 - 12. Laboratory Regulations
 - 13. FDA Reform
- C. Market Structure
 - 1. Hospitals
 - 2. Commercial/Private Laboratories
 - 3. Blood Banks
- D. Market Size, Growth and Major Suppliers' Sales and Market Shares

MAJOR PRODUCT DEVELOPMENT OPPORTUNITIES

- A. Instrumentation
- B. Reagent Kits and Test Systems/panels
- C. Computers, Software and Automation
- D. Auxiliary Products

DESIGN CRITERIA FOR DECENTRALIZED TESTING PRODUCTS

ALTERNATIVE MARKET PENETRATION STRATEGIES

- A. Internal Development
- B. Collaborative Arrangements
- C. University Contracts
- D. Distribution Strategies For Decentralized Testing Markets
 - 1. Marketing Approaches
 - 2. Product Complexity
 - 3. Customer Preference
 - 4. Established Suppliers
 - 5. Emerging Suppliers
 - 6. Major Types Of Distributors
 - 7. Market Segmentation

POTENTIAL MARKET ENTRY BARRIERS AND RISKS

- A. Market Maturity
- B. Cost Containment
- C. Competition
- D. Technological Edge And Limitations
- E. Patent Protection
- F. Regulatory Constraints
- G. Decentralized Testing Market Challenges

COMPETITIVE PROFILES

Abbott
Affymetrix
Agilent
Applied Gene Technologies
Arca
Beckman Coulter/Danaher
Becton Dickinson
Biokit
BioMerieux
Bio-Rad
Biotest
Caliper
Cepheid
Decode

Diadexus
Eiken
Enzo
Exact Sciences
Fujirebio
Gen-Probe
Hologic
Illumina
Innogenetics/Solvay
Kreatech
Li-Cor Biosciences
Life Technologies
Monogram Biosciences
Myriad Genetics
Nanogen/Elitech
Novartis
Orchid CellMark
Ortho-Clinical Diagnostics
Proteome Sciences
Qiagen
Roche
Scienion
Sequenom
Shimadzu
Siemens
Sierra Molecular
Takara Bio
Tecan Group

APPENDIXES

Appendix I: Major Universities and Research Centers Developing Molecular Diagnostic Technology
Appendix II: Glossary of Terms
Appendix III: Currency Exchange Rates

List Of Tables

LIST OF TABLES

Major Companies Developing or Marketing AIDS Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Adenovirus Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Campylobacter Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Chlamydia Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing CMV Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing EBV Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Gonorrhoea Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Hepatitis Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Herpes Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Legionella Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Lyme Disease Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Mycoplasma Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Papilloma Virus Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Pneumonia Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Salmonella Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Shigella Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Streptococci Molecular Diagnostic And Other Direct Identification Tests

Major Companies Developing or Marketing Toxoplasmosis Molecular Diagnostic And

Other Direct Identification Tests
Major Companies Developing or Marketing Tuberculosis Molecular Diagnostic And
Other Direct Identification Tests
Oncogenes Potential Application in Cancer Diagnosis Major Companies Developing or
Marketing Cancer Molecular Diagnostic Tests
Major Companies Developing or Marketing Molecular Diagnostic Test For Genetic
Diseases
Summary Table U.S.A., Molecular Diagnostics Test Volume And Sales Forecast by
Major Application
U.S.A., Laboratories Performing DNA Sequencing by Market Segment
U.S.A., Molecular Diagnostics Market, Potential Laboratory Universe by Market
Segment
U.S.A., Molecular Diagnostics Test Volume Forecast By Major Application
U.S.A., Major Infectious Disease Molecular Diagnostics Test Volume Forecast
U.S.A., Infectious Disease Screening NAT Volume by Test Forecast
U.S.A., Molecular Diagnostics Market Forecast By Major Application
U.S.A., Infectious Disease Screening Nat Reagent Market Forecast by Test
U.S.A., Molecular Diagnostics Market by Major Supplier
U.S.A., HIV/Hepatitis C NAT Market Reagent Sales By Major Supplier
U.S.A., West Nile Virus NAT Market Reagent Sales By Major Supplier

I would like to order

Product name: 2013 Analysis of the US Molecular Diagnostics Market: Emerging Opportunities, Supplier Shares, Country Forecasts, Innovative Technologies, and Competitive Landscape

Product link: <https://marketpublishers.com/r/2CB7735FD2CEN.html>

Price: US\$ 7,600.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/2CB7735FD2CEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

