

Competing in the US Molecular Diagnostics Market

https://marketpublishers.com/r/C265D951AF2EN.html

Date: February 2013

Pages: 880

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

ID: C265D951AF2EN

Abstracts

This new 880-page report from Venture Planning Group contains 37 tables, and 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 five years.

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

Five-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 an 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 Meningitisis

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

Hemochomatosis

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 latrogenesis
 - 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 Gonorrhea 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: Competing in the US Molecular Diagnostics Market
Product link: https://marketpublishers.com/r/C265D951AF2EN.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

First name: Last name:

Email:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/C265D951AF2EN.html

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

Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

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

& Conditions at https://marketpublishers.com/docs/terms.html

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms