

# Japanese Molecular Diagnostics Market 2014: Innovations, Trends and Opportunities for Suppliers

https://marketpublishers.com/r/2F49434DDF5EN.html

Date: January 2014

Pages: 860

Price: US\$ 6,800.00 (Single User License)

ID: 2F49434DDF5EN

## **Abstracts**

This new 860-page report from Venture Planning Group contains 36 tables, and presents a comprehensive analysis of the Japanese molecular diagnostics market, including:

Major issues pertaining to the Japanese 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 860 pages and 36 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-my	С
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

#### **JAPAN**



- A. Executive Summary
- B. Business Environment
- C. Market Structure
- 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 Japan, Molecular Diagnostics Test Volume And Sales Forecast by Major Application

Japan, Laboratories Performing DNA Sequencing by Market Segment

Japan, Molecular Diagnostics Market Potential Laboratory Universe by Market Segment

Japan, Molecular Diagnostics Test Volume Forecast By Major Application

Japan, Major Infectious Disease Molecular Diagnostics Test Volume Forecast

Japan, Infectious Disease Screening NAT Volume Forecast

Japan, Molecular Diagnostics Market Forecast By Major Application

Japan, Infectious Disease Screening Nat Reagent Market Forecast by Test

Japan, Molecular Diagnostics Market By Major Supplier

Japan, HIV/Hepatitis NAT Market Reagent Sales by Major Supplier



#### I would like to order

Product name: Japanese Molecular Diagnostics Market 2014: Innovations, Trends and Opportunities for

Suppliers

Product link: https://marketpublishers.com/r/2F49434DDF5EN.html

Price: US\$ 6,800.00 (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:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/2F49434DDF5EN.html">https://marketpublishers.com/r/2F49434DDF5EN.html</a>

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

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

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

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



