

# **2021 Australia Genetic Diseases, Cancer, Forensic, Paternity Molecular Diagnostics Market Assessment-Competitive Shares and Strategies, Volume and Sales Segment Forecasts, Latest Technologies and Instrumentation Pipeline, Opportunities for Suppliers**

<https://marketpublishers.com/r/21C37763EBA0EN.html>

Date: January 2021

Pages: 0

Price: US\$ 1,850.00 (Single User License)

ID: 21C37763EBA0EN

## **Abstracts**

The report is available by section, market segment, and can be customized to your specific information needs and budget.

This new report is designed to help current suppliers and potential market entrants identify and evaluate emerging opportunities for molecular diagnostic technologies and products for diagnosing genetic diseases, cancer, as well as forensic and paternity/HLA testing during the next five years.

### **Report Presents**

Market shares of leading suppliers

Business and technological trends in major markets

Five-year test volume and sales forecasts

Feature comparison of major analyzers

Strategic profiles of leading market players and start-up firms developing innovative products

Specific product and business opportunities for instrument and consumable

suppliers.

## Opportunities and Strategic Recommendations

Specific new product development opportunities with potentially significant market appeal during the next five years.

Design criteria for new products.

Alternative market penetration strategies.

Potential market entry barriers and risks.

Business planning issues and concerns.

## Market Segmentation Analysis

Five-year test volume and sales forecasts for major applications, including:

Forensic Testing

Cancer

Paternity Testing/HLA Typing

Genetic Diseases

Others

## Product/Technology Review

Comparison of major molecular diagnostic analyzers.

Extensive review of molecular diagnostic technologies, test formats, detection methodologies, trends in testing automation and target/signal amplification methods.

Worldwide listings of companies developing new molecular diagnostic technologies and products.

## Competitive Assessments

Extensive strategic assessments of major suppliers and emerging market entrants, including their sales, product portfolios, marketing tactics, collaborative arrangements and new technologies/products in R&D.

## Rationale

Genetic Diseases, Cancer, Forensic and Paternity testing markets are among the most rapidly growing segments of the in vitro diagnostics industry. The next five years will witness significant developments in reagent systems and automation, as well as introduction of a wide range of new products that will require innovative marketing approaches. The rate of market penetration into routine clinical laboratories, however, will depend on the introduction of cost-effective and automated systems with amplification methods. In order to successfully capitalize on the opportunities presented by these markets, many companies are already exploiting new molecular technologies as corporate strategic assets, managed in support of business and marketing strategies. Integrating new technology planning with business and corporate strategies will be one of the most challenging tasks for diagnostic companies during the next five years.

## Contents

### **I. INTRODUCTION**

### **II. MAJOR PRODUCT DEVELOPMENT OPPORTUNITIES**

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

### **III. DESIGN CRITERIA FOR DECENTRALIZED TESTING PRODUCTS**

### **IV. ALTERNATIVE MARKET PENETRATION STRATEGIES**

- A. Internal Development
- B. Collaborative Arrangements
- C. University Contracts
- D. Distribution Strategies for Decentralized Testing Markets

### **V. 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

### **VI. WORLDWIDE MARKET AND TECHNOLOGY REVIEW**

- 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 Technologies

1. Basic Principles
2. Probe Preparation
3. The DNA Probe Test
4. Test Formats
5. Labeling Techniques
6. Amplification Methods

## C. Detection Technologies

1. Radioactive Methods
2. Non-Isotopic Methods

## D. Instrumentation

Review of latest analyzers from Abbott, Beckman Coulter/Danaher, Becton Dickinson, bioMerieux, Bio-Rad, Cepheid, Hologic, Qiagen, Roche, Siemens Healthineers, and other suppliers.

## E. Biochips: Genosensors, Microarrays, Labs-on-the-Chip

- Liquid Transportation and Mixing
- Separation
- Reaction
- Detection

## F. Pharmacogenomics

## G. Major Applications

1. 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

## 2. 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

### 3. Forensic Testing

- a. Overview
- b. Multilocus and Single Locus Probes
- c. DNA Profile Data Banks
- d. Judicial Implementation
- e. Major Crime Categories
- f. Factors Contributing to the DNA Probe Market Expansion
  - Technology Availability
  - Use of Hair as Evidence
- g. Wildlife Forensics

### 4. Paternity Testing/HLA Typing

### 5. 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

## **VII. MARKET ANALYSES: MOLECULAR DIAGNOSTIC ANALYZERS AND REAGENT MARKET SHARES AND FORECASTS FOR 100 TESTS--VOLUME AND SALES FORECASTS**

## **VIII. COMPETITIVE ASSESSMENTS**

The report provides strategic assessments of over 40 leading molecular diagnostics market players and start-up companies with innovative technologies and products, including:

Abbott, Agilent Technologies, Beckman Coulter/Danaher, Becton Dickinson, bioMerieux, Bio-Rad, Cepheid, DiaSorin, Eiken Chemical, Enzo, Fujirebio, Grifols, Hologic, Illumina, LabCorp/Sequenom, Leica Biosystems, Myriad Genetics, Ortho-Clinical Diagnostics, Qiagen, Quest Diagnostics, Quidel, Roche, Shimadzu, Siemens Healthineers, Sierra Molecular, Takara Bio, Tecan Group, Thermo Fisher, Wako and others.

## **IX. APPENDIX: MAJOR UNIVERSITIES AND RESEARCH CENTERS DEVELOPING INNOVATIVE MOLECULAR DIAGNOSTIC TECHNOLOGIES AND PRODUCT**



## I would like to order

Product name: 2021 Australia Genetic Diseases, Cancer, Forensic, Paternity Molecular Diagnostics  
Market Assessment-Competitive Shares and Strategies, Volume and Sales Segment  
Forecasts, Latest Technologies and Instrumentation Pipeline, Opportunities for Suppliers

Product link: <https://marketpublishers.com/r/21C37763EBA0EN.html>

Price: US\$ 1,850.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click  
button on product page <https://marketpublishers.com/r/21C37763EBA0EN.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