Circulating Tumor Cell (CTC) Diagnostics - Global Strategic Business Report

Description: This report analyzes the worldwide markets for Circulating Tumor Cell (CTC) Diagnostics in US$. The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, and Rest of World.

Annual estimates and forecasts are provided for the period 2015 through 2022. Also, a six-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research.

Company profiles are primarily based on public domain information including company URLs. The report profiles 48 companies including many key and niche players such as -

- ApoCell, Inc.
- Biocep Ltd.
- Biocept, Inc.
- Biofluidica Microtechnologies LLC
- Celltraffix Inc.

Contents:

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS
Study Reliability and Reporting Limitations
Disclaimers
Data Interpretation & Reporting Level
Quantitative Techniques & Analytics
Product Definitions and Scope of Study

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW
Market Outlook
Clinical Relevance of CTCs
CTC Detection
Real-Time 'Liquid Biopsy' Scores Over Surgical Biopsy
Major Challenges in CTC Diagnostics
Need for CTC Enrichment and Popular Methods
CTC Enrichment Techniques
Select Available CTC Detection Technologies
Select CTC Isolation Systems
A Brief Comparison
CTC Identification
Various Approaches
CTC Identification Approaches
List of mRNA Markers for RT-PCR-based Detection of CTCs by Tumor Type
CellSearch System™
The First FDA Approved Automated Enrichment/Isolation Technique
Rising Incidence of Cancer
An Opportunity Indicator
Table 1: Worldwide Incidence of Cancer (2013, 2020 & 2030): Number of New Cases Diagnosed (includes corresponding Graph/Chart)
Table 2: New Cancer Cases in the World by Affected Site (2012) (In Thousands) (includes corresponding Graph/Chart)
Cancer Prone Sites based on Age

2. MARKET TRENDS AND DRIVERS
Liquid Biopsy
the New Buzzword in Healthcare
Select Companies Active in Cancer Liquid Biopsy
CTCs for Personalized Cancer Treatment
Microfluidic Chip-based Technologies
A Promising Avenue for Cancer Diagnosis
CTC Microdevices Hog the Limelight
Table 3: Select CTC Microdevices and Their Characteristics
Increasing Research Reveal Further Complexities to CTC Composition and Behavior
EpCAM Glycoprotein
Insufficient for CTC Detection
New Isolation Techniques Show Promise in Detecting EpCAM- Negative CTCs
Physical Property-based Enrichment Technologies Lose Fizz
Evidence in Favor CTC Heterogeneity Gains Strength
CTC Clusters Raise Research Interest
Detection of EMTs Gains Precedence in the Backdrop of Recent Research Findings
Limitations of CTC Technology for Point-of- Care Testing
CTC Technologies Offer an Edge over Imaging Tests for Breast Cancer Prognosis
Limited Biomarkers Utilized in CTC Diagnostics
A Threat to Market Growth?
Select Research Findings in Recent Years
Microfluidic Device with Micro-Hall Sensors Detect CTCs with Higher Sensitivity and Specificity
NBiomics Makes its Contribution to CTC Diagnosis
Researchers at University of Michigan Develop Revolutionary Capture CTCs Method
Dean Flow Fractionation to Overcome Limitations Associated with Conventional Biomarker Analysis
Gold Nanoparticles Help in the Detection of CTCs

3. MEDICAL DIAGNOSTICS MARKET - A CONCEPTUAL OVERVIEW
Clinical Diagnostics
Table 4: Leading Players in the Global In Vitro Diagnostics (IVD) Market (2013)
Market Share Breakdown by Value Sales for Roche Diagnostics, Abbott Laboratories, Siemens, J&J, Beckman Coulter, bioMerieux, and Others (includes corresponding Graph/Chart)
Table 5: Global In-Vitro Diagnostics (IVD) Market (2013): Percentage Breakdown for Value Sales by Segment for Point of Care, Immunity Tests, Clinical Chemistry, Nucleic Acid Tests, Histology/Cytology, Microbiology, Haematology and Others (includes corresponding Graph/Chart)
Molecular Diagnostics
Growth Drivers
Molecular Diagnostics for Lymphoid Malignancies
Market Trends & Issues
Global Molecular Diagnostics on a High Growth Curve
Automation Driving Global Market
Molecular Diagnostics: Marking Convergence of Numerous Technologies
Aging Population, Disease Incidence
Fundamental Drivers of Growth
Pharmaceutical Firms Carving their Niche in the Molecular Diagnostics Market
Limited Reimbursements by Third Party Payers
A Stumbling Block
Molecular Diagnostics and Intellectual Property
Business Opportunities in the Offing
Medical Training and Practice Challenges
Hurdles All the Way for Companies Eyeing Molecular Diagnostics
Integration of Molecular Diagnostics into Therapeutics
Molecular Diagnostics
Moving from Centralization to Decentralization

4. CIRCULATING TUMOR CELL (CTC) DIAGNOSTICS - ENRICHMENT, IDENTIFICATION AND CHARACTERIZATION METHODS
Introduction
Enrichment
Filtration (iSET)
Density Gradient
Immuno-magnetic Cell Enrichment
Advantages of Different CTC Enrichment Procedures
AdnaTest
Identification
1. PCR-Based Analysis
Reverse Transcriptase Polymerase Chain Reaction (RT-PCR)
RT-qPCR

2. Cytometric Methods
Fiber-Optic Array Scanning Technology (FAST)
Laser Scanning Cytometry (LSC)
Flow Cytometry
CellSearch
Maintrac®
CTC-Chip
Enzyme-linked Epithelial Immunospot Assay (ELISPOT)
Fluorescence In Situ Hybridization (FISH)
Vita-Assay®
TelomeScan™
CytoTrack
Some Other Methods for Detection of CTCs
Characterization
Chemo-Sensitivity Testing of CTCs

5. PRODUCT LAUNCHES AND INTRODUCTIONS
Vortex Biosciences Launches VTX-1 Liquid Biopsy System
Vortex Biosciences Secures CE Mark and FDA Class I Registration for VTX-1 Liquid Biopsy System
Fluxion Biosciences Roll Out New CTC Recovery Kits
Biocept Launches c-MET Amplification Detection Test
Biocept Launches ROS1 Test for Identifying Suitable Therapeutic Targets for NSCLC

6. RECENT INDUSTRY ACTIVITY
Menarini-Silicon Inks Agreement to Take Over CELLSEARCH® CTC Assets
Cancer Genetics and ApoCell Team Up for Cancer Profiling and Therapy Selection
Genomic Health Signs Commercial Agreement with Epic Sciences for AR-V7 Liquid Biopsy Test
BGI Joins Hands with Clearbridge BioMedics to Market CTC Products in China
Abnova Secures License to CSV Monoclonal Antibody for CTC Detection
Sorrento Secures License to CytoLumina's NanoVelcro CTC Profiling Assay
Janssen Announces Utility of CELLSEARCH® System in PD-L1 Expression Detection on CTCs
Qiagen Acquires AdnaGen's CTC Enrichment Technology
Tokai Inks Deal with Qiagen for Licensing CTC Enrichment Technology
ScreenCell Enters Collaborative Study for Evaluating CTC Enrichment Capability of ScreenCell Products

7. FOCUS ON SELECT PLAYERS
ApoCell, Inc. (US)
Biocеп Ltd. (Israel)
Biocept, Inc. (US)
Biofluidica Microtechnologies LLC (US)
Celltraffix Inc. (US)
Clearbridge Biomedics (Singapore)
Creatv Microtech, Inc. (US)
Cynvenio Biosystems, Inc. (US)
Epic Biosciences Inc. (US)
Fluxion Biosciences, Inc. (US)
Ikonisys, Inc. (US)
IVDiagnostics, Inc. (US)
Janssen Diagnostics LLC (US)
QIAGEN Hannover GmbH (Germany)
RARECELLS SAS (Italy)
ScreenCell (France)
STEMCELL Technologies, Inc. (Canada)

8. GLOBAL MARKET PERSPECTIVE
Table 6: World Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 7: World Historic Review for Circulating Tumor Cell (CTC) Diagnostics by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), and Rest of World Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 8: World 14-Year Perspective for Circulating Tumor Cell (CTC) Diagnostics by Geographic Region Percentage Breakdown of Annual Revenues for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), and Rest of World Markets for Years 2009, 2016 & 2022 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES
   A. Market Analysis
      US Diagnostics Market: An Overview
      CTC Diagnostics in the US
      Set for a Strong Growth
      Approved CTC Tests in the US
      A Brief Comparison
      Cancer Incidence in the US
      Research Breakthroughs in the US CTC Market
      Product Launches
      Strategic Corporate Developments
      Select Players
   B. Market Analytics
      Table 9: New Cancer Cases by Gender and Affected Site in the US (2017E) (includes corresponding Graph/Chart)
      Table 10: Cancer Related Deaths by Gender in the US (2017E) (includes corresponding Graph/Chart)
      Table 11: The US Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
      Table 12: The US Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

2. CANADA
   A. Market Analysis
      Current and Future Analysis
      Canadian Cancer Statistics
      Table 13: New Cancer Cases in Canada (2016): Percentage Breakdown of Cancer Incidence by Gender and Affected Site (includes corresponding Graph/Chart)
      Table 14: New Cancer Cases in Canada by Province (2016) (includes corresponding Graph/Chart)
      Table 15: Cancer Incidence in Canada by Age Group and Gender: Age Standardized Incidence Rate per 100,000 People (2015) (includes corresponding Graph/Chart)
      Stemcell Technologies, Inc.
      A Key Player
   B. Market Analytics
      Table 16: Canadian Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
      Table 17: Canadian Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

3. JAPAN
   Market Analysis
   Table 18: Japanese Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
   Table 19: Japanese Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4. EUROPE
   A. Market Analysis
      Current & Future Analysis
      Insight into Molecular Diagnostics Markets in Europe
      Cancer Trends
Table 20: Cancer Incidence in Europe by Site: 2012 (in Thousands) (includes corresponding Graph/Chart)

Table 21: European Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics by Geographic Region
France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)

Table 22: European Historic Review for Circulating Tumor Cell (CTC) Diagnostics by Geographic Region
France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 23: European 14-Year Perspective for Circulating Tumor Cell (CTC) Diagnostics by Geographic Region
Percentage Breakdown of Annual Revenues for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 2009, 2016 & 2022 (includes corresponding Graph/Chart)

4a. FRANCE
A. Market Analysis
Current & Future Analysis
ScreenCell
A Key Player
B. Market Analytics
Table 24: French Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 25: French Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4b. GERMANY
A. Market Analysis
Current & Future Analysis
An Overview of Molecular Diagnostics Market
Strategic Corporate Development
Key Player
B. Market Analytics
Table 26: German Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 27: German Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4c. ITALY
A. Market Analysis
Current & Future Analysis
Rarecells Sas
A Key Player
B. Market Analytics
Table 28: Italian Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 29: Italian Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4d. THE UNITED KINGDOM
Market Analysis
Table 30: The UK Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 31: The UK Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4e. SPAIN
Market Analysis
Table 32: Spanish Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 33: Spanish Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4f. RUSSIA
Market Analysis
Table 34: Russian Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 35: Russian Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4g. REST OF EUROPE
Market Analysis
Table 36: Rest of Europe Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 37: Rest of Europe Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC
A. Market Analysis
Current & Future Analysis
Cancer Trends in Asia-Pacific
Table 38: Cancer Incidence in Asia-Oceania by Site: 2011 (in Thousands) (includes corresponding Graph/Chart)
Indian Molecular Diagnostics Market
China
Chinese Cancer Statistics
Table 39: New Cancer Cases in China by Gender and Affected Site: 2015 (In Thousands) (includes corresponding Graph/Chart)
Table 40: Cancer Related Mortality in China by Gender and Affected Site: 2015 (In Thousands) (includes corresponding Graph/Chart)
Strategic Corporate Development
Key Player
B. Market Analytics
Table 41: Asia-Pacific Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 42: Asia-Pacific Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

6. REST OF WORLD
A. Market Analysis
Current & Future Analysis
Key Player
B. Market Analytics
Table 43: Rest of World Recent Past, Current & Future Analysis for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2015 Through 2022 (includes corresponding Graph/Chart)
Table 44: Rest of World Historic Review for Circulating Tumor Cell (CTC) Diagnostics Market Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE
Total Companies Profiled: 48
- The United States (31)
- Canada (3)
- Europe (10)
- France (1)
- Germany (6)
- The United Kingdom (2)
- Italy (1)
- Asia-Pacific (Excluding Japan) (3)
- Middle East (1)

Ordering:

Order Online - http://www.researchandmarkets.com/reports/2832326/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

Product Name: Circulating Tumor Cell (CTC) Diagnostics - Global Strategic Business Report
Web Address: http://www.researchandmarkets.com/reports/2832326/
Office Code: SCWPSBSX

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Single User</th>
<th>1 - 5 Users</th>
<th>1 - 10 Users</th>
<th>1 - 15 Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF)</td>
<td>USD 4950</td>
<td>USD 6930</td>
<td>USD 9405</td>
<td>USD 11880</td>
</tr>
</tbody>
</table>

* The price quoted above is only valid for 30 days. Please submit your order within that time frame to avail of this price as all prices are subject to change.

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof [ ]
First Name: ___________________________ Last Name: ___________________________
Email Address: * ___________________________
Job Title: ___________________________
Organisation: ___________________________
Address: ___________________________
City: ___________________________
Postal / Zip Code: ___________________________
Country: ___________________________
Phone Number: ___________________________
Fax Number: ___________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card:  
You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check:  
Please post the check, accompanied by this form, to:
Research and Markets,  
Guinness Center,  
Taylors Lane,  
Dublin 8,  
Ireland.

☐ Pay by wire transfer:  
Please transfer funds to:
Account number 833 130 83  
Sort code 98-53-30  
Swift code ULSBIE2D  
IBAN number IE78ULSB98533083313083  
Bank Address Ulster Bank,  
27-35 Main Street,  
Blackrock,  
Co. Dublin,  
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: _______________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:  
(646) 607-1907 or (646) 964-6609 - From USA  
+353-1-481-1716 or +353-1-653-1571 - From Rest of World