

Circulating Tumor Cells and Cancer Stem Cells Technologies: Market Research Report

https://marketpublishers.com/r/C62E23E7420EN.html

Date: January 2014

Pages: 213

Price: US\$ 4,950.00 (Single User License)

ID: C62E23E7420EN

Abstracts

This report analyzes the worldwide markets for Circulating Tumor Cells and Cancer Stem Cells Technologies in US\$ Million. 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 2013 through 2020. Also, a seven-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 66 companies including many key and niche players such as -

Alchemia Limited

Amgen Inc.

Exelixis, Inc.

Formula Pharmaceuticals

GlaxoSmithKline Plc



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. CIRCULATING TUMOR CELLS (CTCS) - GLOBAL MARKET OVERVIEW

CTC Detection – Real-Time 'Liquid Biopsy' Scores Over Surgical Biopsy Challenges in CTC Diagnostics

Need for CTC Enrichment and Popular Methods

CTC Enrichment Techniques

CTC Identification – Various Approaches

CTC IDENTIFICATION APPROACHES

A List of mRNA Markers for RT-PCR-based Detection of CTCs by Tumor Type CellSearch System- The Only FDA Approved Automated Enrichment/Isolation Technique

Market Outlook

Rising Incidence of Cancer – An Opportunity Indicator

Table 1. World Cancer Incidence by Geographic Region and Gender (2012): Number of New Cancer Cases Reported in Thousands for Asia-Oceania, Europe, North America, Latin America & the Caribbean, and Africa (includes corresponding Graph/Chart)

Table 2. World Cancer Mortality by Geographic Region and Gender (2012): Number of Cancer-Related Deaths in Thousands for Asia-Oceania, Europe, North America, Latin America & the Caribbean, and Africa (includes corresponding Graph/Chart)

Table 3. New Cancer Cases in the World by Affected Site: 2012 (in Thousands) (includes corresponding Graph/Chart)



Table 4. Global Incidence of Common Cancers in Men (2012): Number of New Cases Reported in Thousands for Lung & Bronchus, Prostate, Colorectal and Liver Cancers (includes corresponding Graph/Chart)

Table 5. Global Incidence of Common Cancers in Women (2012): Number of New Cases Reported in Thousands for Breast, Colorectal, Lung & Bronchus and Liver Cancers (includes corresponding Graph/Chart)

Table 6. Global Cancer Mortality in Men for Select Cancers (2012): Number of Deaths in Thousands for Lung & Bronchus, Liver, Colorectal and Prostate Cancers (includes corresponding Graph/Chart)

Table 7. Global Cancer Mortality in Women for Select Cancers (2012): Number of Deaths in Thousands for Breast, Lung & Bronchus, Colorectal and Liver (includes corresponding Graph/Chart)

Cancer Prone Sites based on Age

2. MARKET TRENDS AND DRIVERS

CTCs for Personalized Cancer Treatment

Microfluidic Chip-based Technologies – A Promising Avenue for Cancer Diagnosis

CTC Microdevices Hog the Limelight

Table 8. Select CTC Microdevices and Their Characteristics

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?

3. CANCER STEM CELLS - GLOBAL MARKET OVERVIEW

CSC-Focused Innovations in Cancer Therapeutics
Select Pathways or Molecular Targets for CSC Candidates
Pipeline Analysis of Select Cancer Stem Cells Therapeutics (2014)
Select Targeted Toxins against CSC Markers: 2013
Various Methods Used for Isolation of Cancer Stem Cells
Antibody-mediated Therapies

Circulating Tumor Cells and Cancer Stem Cells Technologies: Market Research Report



4. CTC AND CSC RESEARCH FINDINGS & BREAKTHROUGHS

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

Diabetes Drug Metformin May Prove Effective against Pancreatic Cancer Stem Cells Novel Chemical Inhibitors that Target Cancer Stem Cells

5. MEDICAL DIAGNOSTICS MARKET – A CONCEPTUAL OVERVIEW

Clinical Diagnostics

Table 9. 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 10. 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

6. 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

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

7. CANCER STEM CELLS (CSCS) - BIOLOGY, ISOLATION, CSC SURFACE



MARKERS, AND SIGNALING PATHWAYS

Introduction

Differences between Normal Stem Cells and Cancer Stem Cells

Milestones in Stem Cell and Cancer Stem Cell Research

Origin

Hierarchical versus Stochastic Models of Tumour Cell Heterogeneity

Isolation of Cancer Stem Cells

Characteristics of Cancer Stem Cells

Resistance to Chemotherapy

Resistance to Radiation

Invasion or Metastatic Activity

CSC Markers

EpCAM (Epithelial Cell Adhesion Molecule)

CD133 (prominin 1)

ALDH

CD90 (THY1)

CD44 (PGP1)

CD24 (HSA)

Surface Markers Used for the Identification of CSCs Cancer Stem Cell (CSC) Markers by Disease Metastatic Cancer Stem Cells

Table 11. Cancer Stem Cells in Solid Tumors

Pathways Involved in the Maintenance of CSCs p53 Pathway Activation of Receptor Tyrosine Kinase Pathway Notch Pathway Retinoblastoma Pathway Wnt and Sonic Hedgehog Pathways

BMI-1



Research Indicates Diabetes Drug Metformin Effective against Pancreatic Cancer Stem

Research Leads to Development of Novel Chemical Inhibitors that Target Cancer Stem Cells

8. PRODUCT LAUNCHES AND INTRODUCTIONS

EU Authorisation for ANGLE's Parsortix Cancer Diagnostic Device ANGLE Launches Parsortix Device into the Research Market Promab Introduces New Range of Cancer Stem Cells Solutions Clearbridge BioMedics Unveils ClearCell® FX Cancer Cell Enrichment System Fluxion Introduces New IsoFlux System CTC Technology Cynvenio Launches LiquidBiopsy Lab Service Biocept Launches OncoCEE-BR ApoCell to Launch ApoStream

9. RECENT INDUSTRY ACTIVITY

Stem Cell Therapeutics and University of York Ink Option Agreement Veridex Undergoes Name Change to Janssen Diagnostics Janssen Diagnostics and Arno Therapeutics Ink Collaboration Agreement Veridex Enters into Agreement with LabCorp Stemline Therapeutics Obtains Orphan Drug Designation for SL-401 ANGLE Announces Test Results of Parsortix Non-Invasive Cancer Diagnostic Product University Health Network Signs Definitive License Agreement with Stem Cell Therapeutics

Verastem Inks Agreement with LabCorp®

Verastem Receives Orphan Drug Designation for Defactinib from US FDA Lonza Partners with Eclipse

Verastem Signs Agreement with Pfizer to Acquire Exclusive In-License Rights for VS-6063

ScreenCell Inks Global Distribution Agreement with Affymetrix

Dainippon Sumitomo Pharma to Take Over Boston Biomedical

Bionomics Takes Over Eclipse Therapeutics

BioView Signs Commercial Collaboration Agreement with ScreenCell

Coare Enters into a Services and Co-Marketing Alliance with ChemDiv

Eisai Signs Research Agreement with Verastem

Fluxion Biosciences Inks Collaboration Agreement with Rubicon Genomics



Transgenomic Enters into Partnership with MD Anderson Cancer Center
Transgenomic Collaborates with NYU Langone Medical Center
Veridex Receives China SFDA Approval for CellSearch® CTC Test for Breast Cancer
ScreenCell Signs Global Collaboration and Distribution Agreement with Transgenomic
OncoMed Pharmaceuticals Extends Collaboration with Bayer Healthcare for New
Cancer Drug

Veridex Partners with Massachusetts General Hospital for CTC Technology

10. FOCUS ON SELECT MAJOR PLAYERS IN CTC DIAGNOSTICS

Adnagen GmbH (Germany)

ApoCell, Inc (US)

Biocep LTD (Israel)

Biocept, Inc. (US)

Biofluidica Microtechnologies LLC (US)

Celltrafix Inc. (US)

Clearbridge Biomedics (Singapore)

Creaty Microtech, Inc (US)

Cynvenio Biosystems, Inc. (US)

Ikonisys, Inc. (US)

IVDiagnostics, Inc. (US)

Janssen Diagnostics LLC (US)

Epic Biosciences Inc (US)

RARECELLS SAS (Italy)

SCREENCELL (France)

Stemcell Technologies, Inc. (Canada)

11. SELECT MARKET PARTICIPANTS IN THE CANCER STEM CELLS (CSCS) SPACE

Alchemia Limited (Australia)

Amgen Inc. (US)

Exelixis, Inc. (US)

Formula Pharmaceuticals (US)

GlaxoSmithKline Plc. (UK)

Geron Corp. (US)

Infinity Pharmaceuticals (US)

Kalobios Pharmaceuticals Inc. (US)

Novartis AG (Switzerland)



OncoMed Pharmaceuticals, Inc. (US)
Pfizer, Inc. (US)
Roche Diagnostics (Switzerland)
Verastem, Inc. (US)

12. GLOBAL MARKET PERSPECTIVE

Table 12. World Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) 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 2013 Through 2020 (includes corresponding Graph/Chart)

Table 13. World Historic Review for Circulating Tumor Cells (CTCs) 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 2006 through 2012 (includes corresponding Graph/Chart)

Table 14. World 15-Year Perspective for Circulating Tumor Cells (CTCs) 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 2006, 2014 & 2020 (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
Cancer Incidence in the US

Table 15. New Cancer Cases in the US by Gender and Affected Site: 2012

Table 16. New Cancer Cases in Males in US by Leading Site: 2012 (includes corresponding Graph/Chart)



Table 17. New Cancer Cases in Females in US by Leading Site: 2012 (includes corresponding Graph/Chart)

Research Breakthroughs in the US CTC Market
Product Launches
Strategic Corporate Development
Select Key Players in CTC Market
Select Key Players in CSC Market
B. Market Analytics

Table 18. The US Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 19. The US Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

2. CANADA

A. Market Analysis
Cancer Incidence in Canada

Table 20. New Cancer Cases in Canada by Gender and Affected Site: 2012 (includes corresponding Graph/Chart)

Table 21. New Cancer Cases in Canada by Province: 2012 (includes corresponding Graph/Chart)

Table 22. New Cancer Cases in Canada by Age Group: 2012 (includes corresponding Graph/Chart)

Strategic Corporate Development Stemcell Technologies, Inc. – A Key Player B. Market Analytics



Table 23. Canadian Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 24. Canadian Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

3. JAPAN

A. Market AnalysisStrategic Corporate DevelopmentB. Market Analytics

Table 25. Japanese Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 26. Japanese Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4. EUROPE

A. Market Analysis
Insight into Molecular Diagnostics Markets in Europe

Table 27. European IVD Market for Select Countries (2010) - Market Value in US\$ Million for Spain, UK, Germany, Italy, France, Poland, Netherlands, Belgium, Denmark, Portugal, Austria, Sweden, Bulgaria and Lithuania (includes corresponding Graph/Chart)

Debt Crisis in Europe Affects Healthcare Industry Healthcare System.... in a State of Transition? Cancer Trends



Table 28. Cancer Incidence in Europe by Site: 2012 (in Thousands) (includes corresponding Graph/Chart)

ANGLE's Parsortix Cancer Diagnostic Device Obtains EU Approval B. Market Analytics

Table 29. European Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) 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 2013 Through 2020 (includes corresponding Graph/Chart)

Table 30. European Historic Review for Circulating Tumor Cells (CTCs) 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 2006 through 2012 (includes corresponding Graph/Chart)

Table 31. European 15-Year Perspective for Circulating Tumor Cells (CTCs) Diagnostics by Geographic Region - Percentage Breakdown of Annual Revenues for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 2006, 2014 & 2020 (includes corresponding Graph/Chart)

4A. FRANCE

A. Market AnalysisScreencell – A Key PlayerB. Market Analytics

Table 32. French Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 33. French Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4B. GERMANY



A. Market AnalysisAn Overview of Molecular DiagnosticsKey PlayerB. Market Analytics

Table 34. German Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 35. German Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4C. ITALY

A. Market AnalysisRarecells Sas – A Key PlayerB. Market Analytics

Table 36. Italian Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 37. Italian Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4D. THE UNITED KINGDOM

A. Market Analysis

Product Launch

Strategic Corporate Developments

GlaxoSmithKline Plc. – A Key Company Focusing on CSC Therapeutics

B. Market Analytics

Table 38. The UK Recent Past, Current & Future Analysis for Circulating Tumor Cells



(CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 39. The UK Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4E. SPAIN

Market Analysis

Table 40. Spanish Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 41. Spanish Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4F. RUSSIA

Market Analysis

Table 42. Russian Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 43. Russian Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

4G. REST OF EUROPE

A. Market AnalysisSelect Players in CSC MarketsB. Market Analytics



Table 44. Rest of Europe Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 45. Rest of Europe Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC

A. Market Analysis

Cancer Trends in Asia-Pacific

Table 46. Cancer Incidence in Asia-Oceania by Site: 2011 (in Thousands) (includes corresponding Graph/Chart)

India

China

CellSearch Obtains Approval for Metastatic Breast Cancer Detection in China Product Launch

Strategic Corporate Developments

Key Players

B. Market Analytics

Table 47. Asia-Pacific Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 48. Asia-Pacific Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

6. REST OF WORLD

A. Market Analysis Key Player



B. Market Analytics

Table 49. Rest of World Recent Past, Current & Future Analysis for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2013 Through 2020 (includes corresponding Graph/Chart)

Table 50. Rest of World Historic Review for Circulating Tumor Cells (CTCs) Diagnostics Analyzed with Annual Revenue Figures in US\$ Million for Years 2006 through 2012 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE

Total Companies Profiled: 66 (including Divisions/Subsidiaries - 67)

The United States (46)

Canada (3)

Japan (2)

Europe (9)

France (3)

Germany (2)

The United Kingdom (1)

Rest of Europe (3)

Asia-Pacific (Excluding Japan) (4)

Middle East (3)



I would like to order

Product name: Circulating Tumor Cells and Cancer Stem Cells Technologies: Market Research Report

Product link: https://marketpublishers.com/r/C62E23E7420EN.html

Price: US\$ 4,950.00 (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/C62E23E7420EN.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	
	Custumer 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