

## About RI Technologies

RI Technologies is a premier source of market research on the Biotechnology & Healthcare sector. We emphasize on factual insights and forecasts with maximum global coverage. RI Technologies is constantly monitoring the biotechnology & Healthcare industry, tracking market trends, and forecasting industry based on specialized analysis. The life sciences sector is an ever growing marketplace with emerging technologies in areas of discovery, design and development.

### Research – As Good as the Methodology is!

- Gauging Competitive Intelligence
- Identifying Key Growth Areas and Opportunities
- Understanding Geographic Relevance to Product
- Knowing Regional Market Sizes and Growth Opportunities and Restraints
- Keeping Tab on Emerging Technologies
- Equity Analysis
- Tapping New Markets

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## II. REPORT SYNOPSIS

### FOREWORD

High Throughput Screening (HTS) is the process by which thousands of compounds that possess the potential of emerging as a new drug are tested using automated machines. The main objective of carrying out HTS is to remove the inactive compounds at the initial stage and accumulate the active compounds called hits. These hits are then put through various tests to obtain the leads. The process of HTS when employed on half a million compounds, for example, would provide 300 - 400 hits and this in turn would create 3 to 4 Leads.

Strategic partnerships between pharmaceutical and biotechnology companies are the order of the day, and the trend is increasing globally. Another significant trend is the alliances between Pharma and Biotech companies and information technology companies such as Microsoft, IBM, Oracle, Sun, and Infosys, etc. The computer platforms generated by such companies help in managing and analyzing the huge amounts of data produced through High Throughput Screening (HTS) and other computational techniques. Effective R&D strategy involves efficient data management and implementation plans. The new technologies promise improved efficacy, decreased toxicity in patients, and reduced time frames and expenditures.

Changing business paradigms brought in by globalization and liberalization are making pharmaceutical companies change strategies for sustenance and growth. Many companies are venturing into HTS studies instead of going for alliances, to become self sufficient and reduce costs. The R&D wings are increasingly becoming target oriented to face the numerous challenges posed in the drug discovery and development industry.

This report analyses the following technologies, products and services of HTS at the global as well as regional levels. **Synopsis** chapter of the report gives the summary of total HTS market by technology and by product segment for each geographic region - North America, Europe, Asia-Pacific and Rest of World.

#### Technology and Product Segmentation

Global HTS market is segmented by technology into Ultra High Throughput Screening, High Content Screening, Bioinformatics and Lab-on-a-Chip/Microfluidics segments; and by products into HTS Services, HTS Tools, Other HTS Products and/or Services.

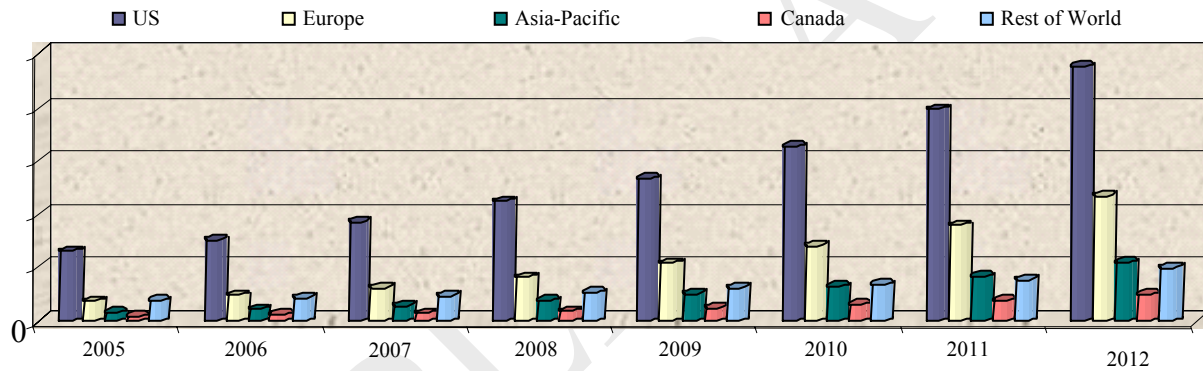
#### Exhibit: Segmentation of Global HTS Market By Technology (Ultra High Throughput Screening, High Content Screening, Bioinformatics and Lab-on-a-Chip/Microfluidics) and Product Segments (HTS Services, HTS Tools, Other HTS Products and/or Services)

Technology	Product Segments
➤ Ultra High Throughput Screening	➤ HTS Services
➤ High Content Screening	➤ HTS Tools
➤ Bioinformatics	➤ Other HTS Products and/or Services*
➤ Lab-on-a-Chip/Microfluidics	

\*Other HTS products and/or services include pipettors, vials, liquid chromatography/mass spectrometry, re-screening services and other HTS disposable products

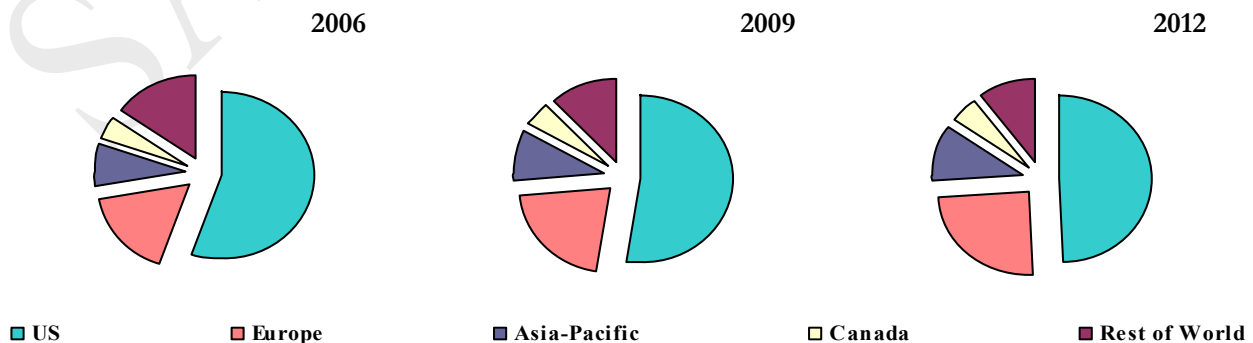
**Exhibit: uHTS (2005-2012) – Global Market Analysis (Current & Future) by Geographic Region for United States, Europe, Asia-Pacific, Canada and Rest of World in US\$ Million**

Region/ Year	US	Europe	Asia-Pacific	Canada	Rest of World	Total
2005	XXX	XXX	XXX	XXX	XXX	XXX
2006	XXX	XXX	XXX	XXX	XXX	XXX
2007	XXX	XXX	XXX	XXX	XXX	XXX
2008	XXX	XXX	XXX	XXX	XXX	XXX
2009	XXX	XXX	XXX	XXX	XXX	XXX
2010	XXX	XXX	XXX	XXX	XXX	XXX
2011	XXX	XXX	XXX	XXX	XXX	XXX
2012	XXX	XXX	XXX	XXX	XXX	XXX
%CAGR	XXX	XXX	XXX	XXX	XXX	XXX



**Exhibit: uHTS (2006, 2009 and 2012) – Percentage Breakdown of Global Market Value by Geographic Region for United States, Europe, Asia-Pacific, Canada and Rest of World**

Region/ Year	US	Europe	Asia-Pacific	Canada	Rest of World	Total
2006	XXX	XXX	XXX	XXX	XXX	XXX
2009	XXX	XXX	XXX	XXX	XXX	XXX
2012	XXX	XXX	XXX	XXX	XXX	XXX

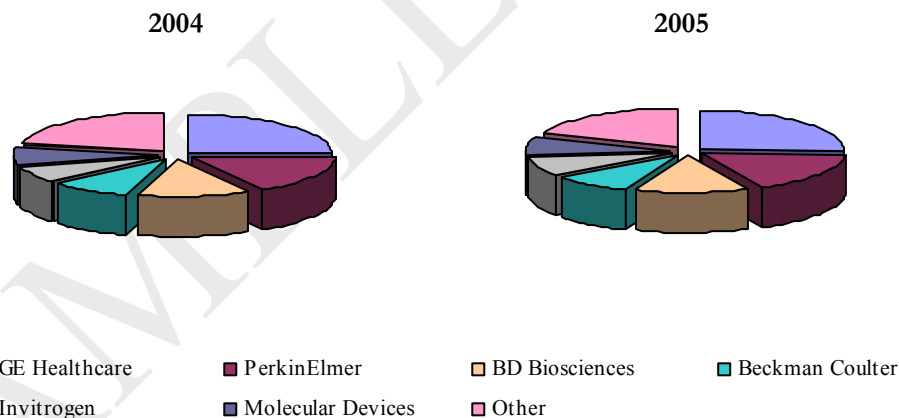


## Major Global Players in Cell Based Assays Market

GE Healthcare is the global leader in Cell Based Assays market accounting for a share of over **XXX** % in 2005. PerkinElmer and BD Biosciences follow GE with **XXX** % and **XXX** % respectively in the same year. With the acquisitions of Molecular Probes, Genicon Sciences and PanVera in 2003, Invitrogen was the fastest growing company in terms of market share with **XXX** % in 2005 from an estimated **XXX** % in 2004.

**Exhibit: Global Market for Cell Based Assays (2004 & 2005): Percentage Breakdown of Market Shares for GE Healthcare, PerkinElmer, BD Biosciences, Beckman Coulter, Invitrogen, Molecular Devices and Other**

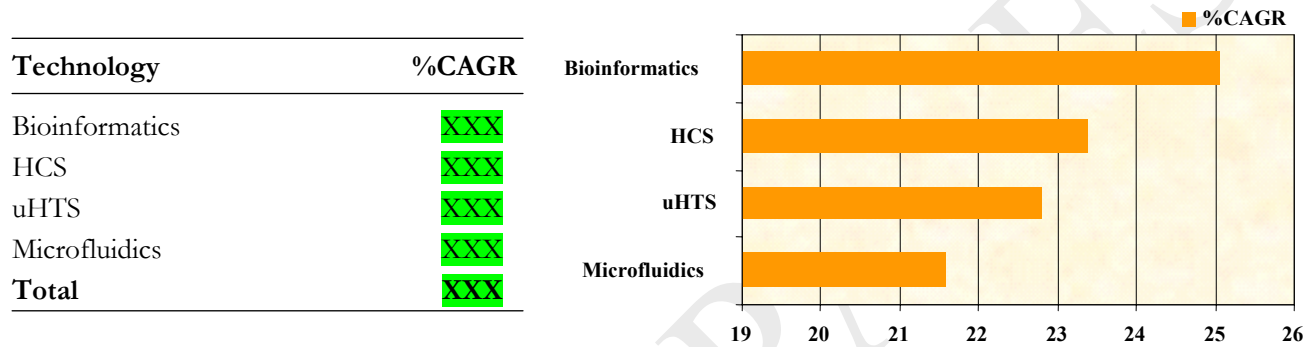
Company	2004	2005
GE Healthcare	<b>XXX</b>	<b>XXX</b>
PerkinElmer	<b>XXX</b>	<b>XXX</b>
BD Biosciences	<b>XXX</b>	<b>XXX</b>
Beckman Coulter	<b>XXX</b>	<b>XXX</b>
Invitrogen	<b>XXX</b>	<b>XXX</b>
Molecular Devices	<b>XXX</b>	<b>XXX</b>
Other	<b>XXX</b>	<b>XXX</b>
<b>Total</b>	<b>XXX</b>	<b>XXX</b>



## Growth Trends – Global HTS Technologies

The latest technology, Lab-on-a-Chip/Microfluidics is projected to be the fastest growing HTS technology during the analysis period 2005-2012 with a CAGR of **XXX** %. Bioinformatics and High Content Screening have the highest and second highest CAGR of **XXX** % and **XXX**% respectively.

**Exhibit: Global Market for High Throughput Screening: HTS Technologies (Bioinformatics, HCS, uHTS, Microfluidics) Ranked by Projected CAGR for 2005 through 2012**



## IV. MARKET DYNAMICS

### Global Market Analysis

The market for HTS, globally, was estimated at US\$ XXX billion in 2006. The market is further projected to reach US\$ XXX billion by 2012, registering a Compounded Annual Growth Rate (CAGR) of XXX% during the analysis period 2005-2012.

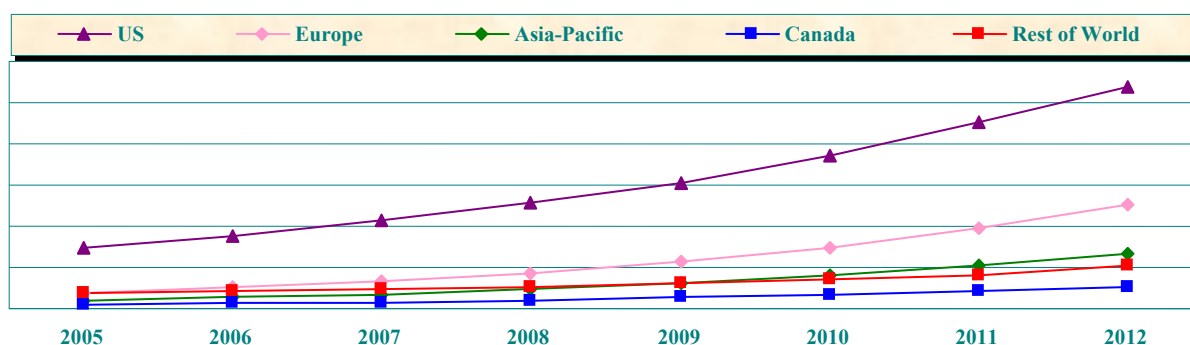
The United States was estimated as the largest market for HTS in 2006 with a share of XXX % valued at US\$ XXX billion and is projected to reach US\$ XXX billion by 2012 to retain its position with a share of XXX %.

Europe is projected to be the second largest and second fastest growing market during the same analysis period, while Asia-Pacific is projected to be the fastest growing market. In 2006, the market for HTS in Europe and Asia-Pacific is estimated at US\$ XXX billion and US\$ XXX million respectively.

Rest of World (consisting of Latin America, Africa and Middle East) region's market was estimated at US\$ XXX billion in 2006.

**Exhibit: High Throughput Screening (2005-2012) – Global Market Analysis (Current & Future) by Geographic Region for United States, Europe, Asia-Pacific, Canada and Rest of World in US\$ Million**

Region/ Year	US	Europe	Asia-Pacific	Canada	Rest of World	Total
2005	XXX	XXX	XXX	XXX	XXX	XXX
2006	XXX	XXX	XXX	XXX	XXX	XXX
2007	XXX	XXX	XXX	XXX	XXX	XXX
2008	XXX	XXX	XXX	XXX	XXX	XXX
2009	XXX	XXX	XXX	XXX	XXX	XXX
2010	XXX	XXX	XXX	XXX	XXX	XXX
2011	XXX	XXX	XXX	XXX	XXX	XXX
2012	XXX	XXX	XXX	XXX	XXX	XXX
%CAGR	XXX	XXX	XXX	XXX	XXX	XXX



**Exhibit: High Throughput Screening (2006, 2009 and 2012) – Percentage Breakdown of Global Market Value by Geographic Region for United States, Europe, Asia-Pacific, Canada and Rest of World**

Region/ Year	US	Europe	Asia-Pacific	Canada	Rest of World	Total
2006	XXX	XXX	XXX	XXX	XXX	XXX
2009	XXX	XXX	XXX	XXX	XXX	XXX
2012	XXX	XXX	XXX	XXX	XXX	XXX

