

**Global and China DNA Sequencing Industry  
Research Report, 2014-2017**

**Oct. 2014**

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications.

Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

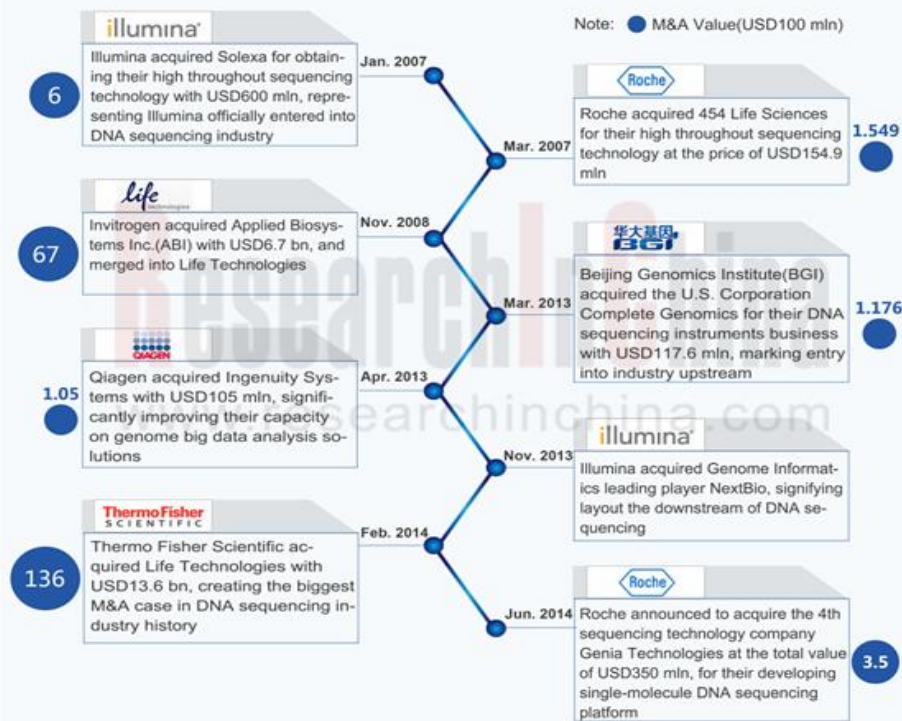
## Abstract

DNA sequencing is the process of reading nucleotide bases in a specific DNA molecule, that is to say determining the arrangement mode of adenine, thymine, cytosine, and guanine. It can be applied in a broad range of fields, including medicine, biology, geology, and agriculture.

With the advancement of DNA sequencing technology and dramatic decline in sequencing costs, DNA sequencing is increasingly showing its market potential in noninvasive detection, disease diagnosis, and personalized treatment. In 2013, the market size of global DNA sequencing (including equipment and consumables, service and workflow, etc.) approximated USD4.6 billion, up around 26% from the previous year. It is projected that by 2017 this figure will reach USD10.096 billion, exceeding USD10 billion for the first time.

Ever since 1975, DNA sequencing technology has been through four generations, but the fourth-generation technology—Nanopore sequencing is still under development. Due to technologies and costs, the second-generation high-throughput sequencers are the mainstream sequencing platform around the world, with its total number occupying over 95% of next-generation DNA sequencers worldwide.

Global Major M&A Cases in DNA Sequencing Industry, 2007-2014



Source: Global and China DNA Sequencing Industry Research Report,2014-2017 ;ResearchInChina

The upstream sectors of DNA sequencing industry are extremely robust, with the global market dominated by the second-generation DNA sequencing enterprises including Illumina, Thermo Fisher Scientific (through Life Technologies), Roche and the third-generation sequencing enterprises such as Pacific Biosciences. A review of these giants' development history shows that mergers and acquisitions are the main driving forces behind the great market power. In February 2014, Thermo Fisher Scientific acquired Life Technologies for USD13.6 billion, making it the industry giant second only to Illumina.

In China, the upstream sectors of DNA sequencing industry are virtually monopolized by foreign giants. BGI is the leader in China's DNA sequencing service, and its second-generation DNA sequencers top the global chart in number. However, two of its sequencers—HiSeq 2000 and Ion Proton were entirely from Illumina and Life Technologies. In March 2013, BGI acquired Complete Genomics, a sign that BGI formally ventured into the upstream sectors of DNA sequencing industry. In June 2014, BGI's two products—BGISEQ-1000 and BGISEQ-100 became the first second-generation DNA sequencers registered in China.

It is expected, however, that within the next five years the weak position of Chinese enterprises in upstream sectors will remain unchanged except for the epic M&A.

Global and China DNA Sequencing Industry Research Report, 2014-2017 mainly focuses on the followings:

- ⇒ Features, cost, etc. of DNA sequencing technology;
- ⇒ Major M&As, genetic database, market size and structure, etc. of global DNA sequencing industry;
- ⇒ Development, industry policies, market structure and prospects, etc. of DNA sequencing industry in China;
- ⇒ Operation, DNA sequencing business, etc. of 12 enterprises at home and abroad.

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- 1.2 Industry Chain
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