



**China Human Vaccine Industry Report,  
2011-2012**

**May 2012**

## 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 NBS (National Bureau of Statistics of China), China Customs and annual reports of listed companies etc.

## Abstract

After decades of development, China has become one of the major producer and consumers of human vaccine around the world. In 2011, human vaccine manufacturers numbered 38 in China and the lot release quantity of human vaccine footed up to roughly 770 million person-portions, with market size reaching around RMB 1 billion. Moreover, being restricted by the barriers such as vaccine industry policy, technology and capital, it is not easy for companies to set foot in this field and the industry has been with high profitability as a whole. From 2007 to 2011, the gross margin of vaccine business of major manufacturers basically maintained above 60%, and some enterprises such as Walvax Biotechnology and Liaoning Chengda even enjoyed the gross margin of as high as 90% or so.

### Gross Margin of Major Human Vaccine Manufacturers in China, 2007-2011

Company	2007	2008	2009	2010	2011
Hualan Biological	--	67.28%	84.82%	86.94%	76.58%
Tiantan Biological	64.8%	70.1%	69.2%	58.6%	64.7%
Liaoning Chengda	90.76%	90.20%	86.88%	88.10%	87.70%
Zhifei Biological	57.89%	63.60%	68.79%	62.80%	58.89%
Walvax Biotechnology	94.20%	92%	87.61%	90.88%	91.16%
Sinovac Biotech	80.61%	78.63%	76.17%	49.94%	62.83%
Note: it refers to the gross margin of vaccine business (including self-management and agency).					

Source: Company Annals; ResearchInChina' China Human Vaccine Industry Report, 2011-2012'

Although Japanese Encephalitis Vaccine, Hepatitis A Vaccine and Influenza Vaccine have been exported to other countries, they are mainly consumed in China. However, China's vaccine supervisory system was approved by the WHO in March 2011, which may eventually open the door for Chinese vaccines to be distributed globally. In 2011, Tiantan Biological signed a cooperation agreement on oral polio vaccine (OPV) with Bill & Melinda Gates Foundation, according to which, the company will annually supply 160 million OPV doses for United Nations International Children's Emergency Fund (UNICEF) at the negotiated price after its Yizhuang-based Vaccine Workshop is built and has its vaccines "pre-qualified" by the WHO.

The report not only highlights the domestic and international operating environment, overall situation and market supply & demand of Chinese human vaccine industry, and market segments and prospects of 10 vaccines, but also analyzes the competition pattern, as well as operation, advantages and new product R&D dynamics of 11 human vaccine manufacturers.

Affected by the economic level, the national vaccination policy and the public awareness of epidemic prevention, the real vaccination is still mainly concentrated in EPI vaccine. The ratio between the lot release quantity of EPI and Extra EPI vaccine was 3:1 in 2010 which was raised to 4:1 in 2011, similar to that in 2009.

Additionally, EPI vaccine market in China is almost monopolized by state-run enterprises represented by CNBG Tiantan Biological and Biological Products Institutes in Changchu, Chengdu, Wuhan, Shanghai and Lanzhou, and Institute of Medical Biology Chinese Academy of Medical Sciences. In 2011, the state-owned companies accounted for 86.4% market share (by lot release quantity), and even occupied more than 99% market share in OPV segment.

Along with the gradual easing of access to vaccine market, the private firms enjoy the rising share in Extra EPI vaccine market. In 2011, in terms of lot release quantity, private enterprises made up as high as 52% market share and occupied 98.9% share in human Rabies Vaccine market. Meanwhile, the foreign companies maintain 15-20% market share (by lot release) by virtue of their technologies and product advantages. Stimulated by the robust demand for vaccines from Chinese market, five vaccine giants including GSK, Pfizer, Sanofi Pasteur, Merk and Novartis aggressively expand their business in China.

In January 2011, Merk acquired 100% equities of Beijing Skywing Bio-Tech, a player in the vaccine upstream sector. In March 2011, Novartis' acquisition on 85% stake of Zhejiang Tianyuan was approved. In June 2011, GSK projected £ 24 million for 51% shares of GlaxoSmithKline-Neptunus. At the end of 2011, the joint venture between GSK and Walvax Biotechnology---GSK-Walvax Influenza Vaccine (Split Virion) Project was in the civil construction phase.

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