

Introduction to the Development of Life Science Industry in Hainan

Hainan Province, is located in the southern end of China. As one of the largest Special Economic Zones in China, Hainan holds unique ecological environment, tropical resources, health culture and efficient infrastructure. Moreover, Hainan is one of the few "longevity islands" and "Healthy Islands" around the world, which shows incomparable advantages and great prospects for development of health industry and other industry. From 2016 to 2020, the pharmaceutical industry and health care industry is going to become the two major industries in Hainan.

A. The Development of pharmaceutical Industries in Hainan

In recent years, with a series of supportive policies of enhancing innovation, supporting technical transformation and the financial reward of pharmaceutical enterprises, the pharmaceutical industry has rapidly developed with the annual growth rate of 13.5% in Hainan. Over the past five years, the pharmaceutical industry in Hainan Province has already become a system with the advanced manufacturing technology and equipment, the strong research and development capabilities, a complete marketing network and a group of the nationally well-known enterprises. In 2016, the gross industrial production value from 66 pharmaceutical enterprises reached 16.502 billion Yuan. The profit tax is 3.402 billion Yuan which is increased of 19.89% comparing to the last year. There are 35 medical enterprises with the production value of more than 100 million Yuan. There are about 21,000 people employed in pharmaceutical industry in Hainan.

In Hainan, there are 169 high-tech enterprises including 56 medicine high-tech enterprises. These companies own 3048 drug approval certificates. Five of these companies has been certificated by European Union and US FDA. The products of QiLu Pharmaceutical Co. ,LTD, Simcere Co., LTD,. Poly Pharmaceutical Co. ,LTD, Shuangcheng Pharmaceutical Co., Ltd., Visum Pharmaceutical Co., LTD have entered the international markets. It has already formed a cluster with Haikou Medicine Valley as the core, which is surrounded with Mei-an Science and Technology New Town, Haikou Bonded Area, Haikou Guilinyang Economic Development Zone and other areas of industrial. It indicates that the industrial agglomeration is significantly increased. It is predicted that the industrial output value achieves of more than 30 billion Yuan in 2020. In the next five years, Hainan Province is going to strengthen innovative capacity of original drugs, generic drugs, new pharmaceutical preparations, Chinese medicines, marine drugs and intelligent medical equipment. Under the guidance of meeting the demands of medicine

consumption, the clinical medical application as well as improvement of healthy of the entire nation, Hainan is going to develop targeted medicine, high selective medicine and the medicine with new working mechanism in the fields such as tumor, cardiovascular and cerebrovascular diseases, mental diseases, women and children diseases and serious infectious diseases. Especially, the foreign medicines with expiring patent and huge market potential is focused. The development of traditional Chinese medicines (TCM) will be promoted in Hainan province to increase the varieties and quantities of TCM. The national strategy of “One-Road and One-Belt” provides a good opportunities for pharmaceutical enterprises and products in Hainan province to develop overseas markets. The pharmaceutical industry of Hainan province has reserved a batch of products with access to the international markets. Actually, Hainan companies have achieved fundamental sales in southeast Asia, South America and Africa. A strong support will be taken place to enhance the research and development of TCM and marine pharmaceuticals. Each cities and counties are developing the preliminary processing of TCM by utilizing their regional resources. It is expected that the production value of finished TCM would account for 17% of the total output value of pharmaceutical industry in 2020.

B. The Development of Health care Industry in Hainan

Health care industry is accounting for more than 11% of the entire province GDP in 2015. There are 2176 healthcare industry organizations in Hainan, which is employing 91254 people. With the 9 unique preferential political policies, Boao Lecheng international medical tourism area are keeping on the good growth . At present, there are 37 projects are signed. Among them, 20 high-end medical rehabilitation projects have constructed with a total investment of 2.21 billion Yuan and a total area of 1,713 Mu.

By 2020, Hainan will initially establish a health care industry system with local characteristic, a number of well-known brands and internationally competitiveness. It is predicted that the added value of medical health industry accounted for 15% of the province's GDP and the scale will reach to 100 billion Yuan. The formation of a number of health care industry cluster is going to be promoted. It is planed that the Boao Lecheng international medical tourism area is the center of the Eastern Health Industry Cluster, Haikou is the center of the Northern Health Industry cluster, Sanya is the center of Southern Medical and Health Industry cluster, and Danzhou is the center of Western Medical Health Industry cluster. The following 7 areas are specially focused on: **A. Boao**

Lecheng international medical tourism area. This is China's first area with international medical tourism services, low-carbon ecological communities and international organizations. **B. Chinese medicine health services.** It is going to develop medical service system of traditional Chinese medicine, create a healthy tourism demonstration area, develop tourism products of traditional Chinese medicine, build Chinese health care services and promote Chinese medicine service trade. **C. Health anti-aging industry.** It is going to develop health care for the aging based on the advantage of Hainan's geographical environment, folk culture, traditional Chinese medicine and other resources. **D. Health insurance industry:** It is going to focus on supporting the commercial insurance institutions to make links with other sites by combining with the Hainan medical tourism industrials to develop specific commercial health insurance products which related to health services management. **F. Basic medical and public health services:** The basic medical and public health service system will be improved. It is promoted to combine the government running medical system and private medical system in order to consolidate basic medical and public health services. **H. Culturing, production and application of the traditional Chinese medicine:** It is going to promote the standardized planting of local herbs, rare herbs, TCM raw materials and the industrialization and application of related products. **I. Internet health care industry:** The intelligent health care is focused. And development of internet medical & health services will be promoted.

(By Hainan Association for Science and Technology)