

## Market Profile for Biotechnology in the Taiwan Market

### 1.0 MARKET STRUCTURE<sup>1</sup>

#### 1.1 Size

There are considered to be three key sub-sectors of the biotechnology industry in Taiwan, namely the emerging biotechnology sub-sector, the pharmaceutical sub-sector, and the medical devices sub-sector.

In 2006, Taiwan was estimated to have 268 **emerging biotech** companies, including bio-pharmaceuticals (28 percent); food-bio (21 percent); agri-bio (14 percent); bio-services (14 percent); medical examinations (10 percent); specialty chemicals (eight percent); and bio environmental (five percent). Total revenue is approximately US\$1.5 billion, up some 12 percent on 2005.

The performance of the **pharmaceutical** sub-sector has been very stable over recent years. In contrast with other markets, and because of Taiwan's ethnic Chinese background, the Chinese medicine industry has always been included in the pharmaceutical industry in Taiwan. It is very common in Taiwan to see manufacturers of Western pharmaceuticals also producing Chinese medicinal ingredients and formulations. Similarly, many new biotech start-ups are conducting research on medical uses of traditional Chinese medicines/herbs.

**Medical devices** are in high growth mode and performed exceptionally well, recording export revenue of around US\$2.3 billion in 2006.

#### 1.2 Growth Rate

The following have contributed to the growth of the biotechnology industry in Taiwan:

- a) a large workforce in the life sciences and high-tech sectors
- b) a strong medical research base
- c) world-class research institutions
- d) an entrepreneurial 'can-do' business culture
- e) government commitment to investing in biotechnology development
- f) strong international business links, including with mainland China
- g) a stable and liberal business environment.

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## 2.0 COMPETITIVE ENVIRONMENT

### 2.1 Major Players in the Market

After local companies, the US is the strongest player in the industry and alliances with American companies are strong and increasing. International alliances are seen as central to the growth strategies of many Taiwan biotech companies. Examples of foreign strategic allies that Taiwan companies are working with include GenzymeGeneral (US), Synpac (UK), Tanox (US), ATI (US), Sunol (US), Alegnix (US), SNBTS (UK), GloboMax (US), Parexel (Netherlands), Abbott (US), Amarillo Bioscience (US), Prolias (US), Celera Genomics (US), Analytica Therapeutics Inc (US), Kissei Pharmaceutical (Japan), Progen (Australia), Phoenix (US), and Genentech (US).

### 2.2 Marketing Strategies

Alliances aside, an increasing number of Taiwan biotech companies seek specialist foreign expertise when setting up or troubleshooting. New Zealand's biotechnology industries have the scope to raise their profiles in Taiwan and develop opportunity-based relationships. For biological ingredients, exporters are recommended to work with active importers/distributors in developing the market. Since the import process can be fairly complicated and time consuming, most biotechnology ingredient users prefer working with local parties to source inputs.

### 2.3 Distribution Channels

Biological ingredients are commonly ordered through catalogues supplied by foreign manufacturers to local agents. Finished pharmaceuticals tend to be distributed by the companies' own sales representatives, importers, or by independent distributors to users, eg hospitals, clinics and pharmacies, etc.

## 3.0 REGULATORY OVERVIEW

### 3.1 Duties/Taxes

Import duty is payable on all biotechnology products imported from New Zealand. Please check with New Zealand Trade and Enterprise for the current duty rates for individual products.

The Taiwan Customs tariff is also available at:  
<http://web.customs.gov.tw/rate/rate/eseach.asp>

### **3.2 Regulatory and Licensing Restrictions or Difficulties**

Imports of all biotechnology products require an import licence. Please contact New Zealand Trade and Enterprise for advice on conditions applying to individual products.

## **4.0 RECOMMENDED STRATEGIES**

### **4.1 Possible Points of Differentiation for New Zealand Companies**

New Zealand has expertise in many sectors targeted for future development, such as floriculture, aquaculture, animal vaccines, transgenics, biopesticides, post harvest handling and storage technology; gene therapy for prevention, diagnosis and treatment; environmental protection, protein purification, and diagnostics. Therefore, there is significant scope for strategic alliances and collaborative research between New Zealand and Taiwan biotechnology enterprises. Third market opportunities are also possible through international alliances.

There is no biological ingredient manufacturing industry in Taiwan. Hence, there are strong market prospects for biological ingredient suppliers from New Zealand, particularly if these products match the quality of American and European competitors and are attractively priced.

The levels of local production of immunosuppressant drugs, anti-cancer drugs, drugs for kidney disorders, drugs for disorders of the liver and pancreas are low, despite the fact that the ailments treated by these drugs are very common in Taiwan. This is an opportunity for New Zealand companies that have raw materials, intermediates or research and development expertise in these areas. There are also significant prospects for suppliers of diagnostic reagents, plasma, sera, anti-sera, bovine albumin, antigens, culture media, animal and human vaccines, enzymes, pharmaceutical grade salt, milk proteins and hormones.

### **4.2 Tactical Recommendations on Market Entry**

The BioTaiwan trade exhibition and conference held in July every year is worth visiting for obtaining market knowledge and for meeting with potential partners in Taiwan.

A direct introduction from New Zealand Trade and Enterprise is a more targeted approach to market entry that is available any time. New Zealand Trade and Enterprise would be pleased to advise clients on appropriate strategies for specific products.

### **4.3 Recommendations on Long Term Strategic Issues for Exporters to Consider**

Taiwan has a strong venture and development capital industry and an interest in diversifying international investments in growth businesses. Internal and international linkages between

investment capital and biotechnology market opportunities are very strong. New Zealand biotechnology companies should see Taiwan not just as a single dynamic market in itself, but as a potential partner providing international market and research and development opportunities, and the capital to back them up.

Taiwan is also a conduit into mainland China markets for New Zealand biotechnology companies. As China becomes more economically developed, it is anticipated the spending on health remedies and wellness by Chinese consumers will increase, creating a huge demand for biomedical and medical products. Taiwan's proximity to mainland China and the language, ethnic and business connections between the two make Taiwan the ideal location as a stepping stone to mainland China health and medical markets.

A well developed scientific and medical infrastructure, large pool of bio sciences talent and under-developed clinical trial standards in China have promoted the growth of Taiwan as the key clinical study site in Asia. In recent years, there have been mergers/acquisitions of Taiwan contract research organisations (CROs) by multinational CROs which have been exploring Asian sites for clinical studies. New Zealand companies are encouraged to take advantage of the services that Taiwan CROs are able to provide in the Asian markets.

## 5.0 MARKET RESOURCES AND CONTACTS

Taiwan Bio Industry Organization - [www.biotaiwan.com.tw/index.htm](http://www.biotaiwan.com.tw/index.htm)

Bio Taiwan trade show - [www.bioclub.com.tw/en/](http://www.bioclub.com.tw/en/)

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