

## BIOTECHNOLOGY INDUSTRY OVERVIEW

# United Arab Emirates

**PREPARED BY:** DuBiotech  
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## CORE CAPABILITIES

- Laboratory facilities that fit the operation of P1, P2 and P3 labs.
- Regulations in-line with international best standards and practices, coupled with strong IP law.
- Relatively inexpensive highly skilled workforce.

## REGULATORY FRAMEWORK

DuBiotech operates under a streamlined regulatory framework that maintains oversight and control over activities and procedures within the Park while allowing the required freedom for its tenants to operate without a burdensome bureaucracy. DuBiotech has developed the applicable, relevant, and appropriate regulatory framework for the Park that establishes operational criteria and practices based on international standards covering the various regulatory sectors of the life science industries that are to operate at DuBiotech. The regulatory framework provides relevant coverage for each licensing segment: (Therapeutics), (Diagnostics and Analysis), (Agriculture, Forestry, Horticulture, and Food), (Environment), (Specialty Supplies) and (Equipment). In addition, various work areas “activities” within each segment (Research), (Development), (Storage), (Sales and Marketing), (Production), (Manufacturing), and (Service/Support) are addressed under an applicable regulatory framework section that establishes operational criteria and practices covering that work area of the life sciences industries.

## GOVERNMENT PROGRAMS AND POLICIES

- Streamlined regulations and business friendly environment.
- Transparency is ranked in the top 30 worldwide.

## TOP TEN COMPANIES

- Pfizer
- Johnson and Johnson
- Wyeth
- Lilly
- Amgen
- Genzyme
- MerckSerono
- GSK
- Novartis
- Sanofi Aventis.

## ECONOMIC CONTRIBUTION & MARKET CAPITALISATION

As the Biotech industry is still at its infancy, its economic contribution is not well assessed. However, the establishment of DuBiotech by the Dubai government falls in line with its 2015 strategy to create a

knowledge-based sustainable economy with the Biotechnology and Healthcare sectors as major contributors to its growth.

## RESEARCH AND DEVELOPMENT

Regional universities are active in research. UAE University is ranked in the top ten of the Middle East universities in terms of research productivity with special focus on Biomedical and Agricultural research.

## BUSINESS CLIMATE

Dubai is one of the seven emirates that constitute United Arab Emirates (UAE) in the eastern Arabian Peninsula, thus forming a federal framework. Dubai has the largest population and is the second largest emirate by area, after Abu Dhabi, the capital. Revenues from petroleum and natural gas contribute to less than 3% of Dubai's US\$ 46 billion economy (2006). A majority of the emirate's revenues are from the Jebel Ali free zone (JAFZ) and, increasingly, from tourism and other service businesses. Dubai has attracted world-wide attention through its innovative value-added real estate projects.

The government has set up industry-specific free zones throughout the city. Dubai Internet City and Dubai Media City among other entities at TECOM (Dubai Technology, Electronic Commerce and Media Free Zone Authority) are projects that have succeeded in attracting prestigious multinational IT firms such as EMC Corporation, Oracle Corporation, Microsoft, and IBM, and media organisations such as MBC, CNN, Reuters and AP.

The Dubai Financial Market (DFM) was established in March 2000 as a secondary market for trading securities and bonds, both local and foreign. As of Q4 2006, its trading volume stood at about 400 billion shares worth US\$ 95 billion. The DFM had a market capitalization of about US\$ 87 billion.

Dubai has gained an excellent reputation as an international business hub; the following factors have contributed to this success:

- **Strategic Location:** Providing a link between more than 1.5 billion people in the region covering the Gulf, Middle East/Eastern Mediterranean, Central Asia, Africa and the Asian sub-continent; Dubai is served by over 120 shipping lines and linked via 85 airlines to over 130 global destinations;
- **Political And Economic Stability:** Dubai and the UAE are characterized by a very low crime rate and a long history of economic and political stability. Dubai's emerging industries are built on a basis of leading-edge technologies and sound regulatory systems. The government has shown strong commitment to the protection of intellectual property rights. Moody's Investors Service has assigned Dubai an investment grade rating for fixed income investment based on the above mentioned factors;
- **Open And Free Economic System:** Dubai's economy is a free and open system that benefits from an unrestrictive Government control and regulation of private sector activities. There are no foreign exchange controls, trade quotas or barriers and a stable exchange rate exists between the US Dollar and the UAE Dirham (US\$1.00=AED 3.67270). Liberal visa policies permit easy importation of expatriate labor of various skill levels from almost all over the world;
- **World Class Infrastructure and Service Sector:** Dubai invested heavily in transport, telecommunications, energy and industrial infrastructure and has succeeded in building one of the best infrastructure facilities in the world; this has contributed significantly to its ongoing prosperity and attractiveness to international business;
- **Competitive Cost Structure:** International companies setting up in Dubai can obtain significant cost advantages not generally available internationally. The major factors are:
  - No foreign exchange controls,
  - No trade barriers or quotas,
  - Competitive import duties (4% with many exemptions),
  - Competitive labor costs – labor force is multilingual and skilled,
  - Competitive energy costs,
  - Competitive real estate costs,
  - Competitive financing costs and high levels of liquidity,
  - No corporate profit or personal income taxes (except for oil companies and branches of foreign banks);

- High Quality of Life, Excellent Living Conditions: Dubai's hotels, residential and commercial properties, recreational and leisure facilities combined with an excellent infrastructure, low crime, clean environment, tolerance and cultural diversity, cosmopolitan life style, modern public administration, availability of a wide range of consumer goods and services, mild winters and clean, palm fringed beaches have all contributed to an exceptionally high quality of life;
- Extensive Foreign Trade Network & Major Achievements in Export and Re-Export Performance: Dubai boasts an extensive foreign trade network extending to 179 states thus offering the investor an extensive choice of potential global marketing outlets for a diverse portfolio of goods and services. As a member of the UAE federation, Dubai is also part of the world's third-largest export and re-export center after Hong Kong and Singapore;
- Rapidly Developing Manufacturing Sector Producing a Wide Range of High Quality, Competitive Export Products: Major gains have already been made in the profitable manufacture and export of aluminium ingots, fabricated metal products, textiles and ready-made garments, gold and jewellery, prepared foodstuffs, consumer electronics, refined petroleum, chemical and non-metallic mineral products.

## KEY NATIONAL EVENTS

The UAE attracts a relatively large number of international scientific and business conferences, meetings, symposia and workshops. To name a few of the industry- specific events: ArabHealth (the largest in the Middle East and one of the largest worldwide), ArabLab, PABME, MEEDS, International Conference on Drug Discovery and Development.

## OVERVIEW OF INDUSTRY ORGANISATION

Dubai Biotechnology and Research Park (DuBiotech) is the Middle East's first and foremost Science and Business Park dedicated to global Life Science. DuBiotech is a hub fostering collaborations and innovation through its commitment to Life Science research, education and industry nationally and internationally.

DuBiotech, upon completion, will cover 30 million square feet of built-up area. It is strategically positioned in a prime location in Dubai. The 22 million square feet Park is divided into zones that are dedicated to various initiatives and companies of all sizes from across the Life Science value chain with an emphasis on Research and Development and Manufacturing.

DuBiotech services the following Industry Segments and Activities

### Industry Segments:

- Biotechnology
  - Health & Medical
  - Industrial
  - Agricultural
  - Environmental
  - Equine
  - Animal / Marine
- Pharmaceutical
- Nutraceuticals
- Nanotechnology
- Medical Devices
- Bioinformatics
- Forensic Science

### Industry Activities

- R&D including Drug Discovery
- Manufacturing
- Diagnostics
- Sales & Marketing
- Distribution
- Consulting / Service Providers
- Training
- CROs & Clinical Trials
- Financial Institutions