

- DNA sequencers
- cryoscopes
- spectrophotometers
- temperature controllers
- chromatographic instruments
- flowmeters
- pH meters
- reverse osmosis water purification systems
- baths and circulators
- cryogenics equipment
- electrophoresis laboratory equipment
- lyophilizers
- incubators
- bioreactors
- densitometers

### **Consulting, Training and Other Professional Services**

The trend towards partnerships between public and private entities in biotechnology research is creating opportunities for consulting, training and related professional services. Typically, the public-sector partner contributes facilities and technicians while a private-sector sponsor contributes financing and technical support. Consulting services are often needed to focus the research on practical commercial applications.

Canada holds the third largest share of the Mexican market for professional and training services after the United States and Japan. Canadian suppliers enjoy a particularly good reputation in food processing and water treatment applications. Even though foreign consultants have become more expensive in peso terms, the market is still growing, because of a shortage of domestic expertise. Specific areas of demand include:

- fermenting engineering
- enzyme engineering
- tissue culture techniques
- genetic engineering

According to United States Department of Commerce estimates,

demand for biotechnology services from foreign researchers will total about US \$3 million per year over the next five years.

## **THE REGULATORY ENVIRONMENT**

Mexico's biotechnology sector is still fairly young, and it is not clear how the regulatory environment will evolve. Most of the regulations affecting biotechnology are general provisions that apply to industry and commerce in general. Mexico has yet to establish specific legal mechanisms to regulate biotechnology and protect the intellectual property involved.

### **SECRETARIAT OF HEALTH**

The Mexican ministry in charge of all health-related issues is the *Secretaría de Salud (SS)*, Secretariat of Health, also known as *Salubridad*. Biotechnology-based pharmaceuticals and diagnostic products, as well as some food products, must be registered with the SS prior to importation. Registration requires a certificate of compliance with the health standards of the country of origin, as well as the usual international trade documentation.

### **SECRETARIAT OF THE ENVIRONMENT, NATURAL RESOURCES AND FISHERIES**

The administration of environmental issues has been reorganized several times in recent years. The latest revision created the *Secretaría del Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)*, Secretariat of the Environment, Natural Resources and the Fisheries, which oversees the principal environmental agencies. The *Instituto Nacional de Ecología (INECO)*, National Institute of Ecology, establishes environmental norms and regulations. The *Procuraduría Federal para la Protección del Ambiente (PROFEPA)*,

Federal Office for Environmental Protection, enforces the regulations. Other environmental agencies that operate under the auspices of SEMARNAP are the *Comisión Nacional del Agua (CNA)*, National Water Commission and the *Instituto Mexicano de Tecnología del Agua (IMTA)*, Mexican Institute of Water Technology.

## **INTELLECTUAL PROPERTY RIGHTS**

Mexico's intellectual property rights laws have been strengthened to adhere to international standards. Mexico is a member of the major international intellectual property rights organizations, including the Paris Convention for the Protection of Industrial Property, the World Intellectual Property Organization (WIPO) and the General Agreement on Tariffs and Trade (GATT). Mexican law protects against piracy of patents, copyrights and trademarks, and protection is being extended to many intangible products, processes and services. Critics are calling for the complete revision of the Federal Copyright Law of Mexico, and observers predict that the Zedillo administration will propose changes in the near future. One proposal would replace the dual list of products that can and cannot be patented with a single list of products that cannot be patented.

Canadian exporters enjoy increased protection through the North American Free Trade Agreement (NAFTA). Article 1717 requires that Mexico enforce intellectual property laws and apply criminal sanctions that are sufficient to deter piracy. Unfortunately, neither the NAFTA nor Mexican laws specifically protect biotechnology inventions, and many biological products cannot yet be patented in Mexico.