







Japan External Trade Organization
Invest Japan Division, Invest Japan Department
Ark Mori Building, 6F, 12-32, Akasaka 1-chome,
Minato-ku, Tokyo 107-6006, Japan
Tel: +81-3-3582-5571 Fax: +81-3-3505-1990

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Healthcare



Overview: Medical Care and Welfare

A Market that is Expanding as the Population Ages

As Japan's population ages more rapidly than that of any other developed country, the medical care and welfare markets in Japan are expected to expand significantly in the future. In response to the public's increased awareness of health issues and the government's implementation of supportive policies, the market is showing signs of developing new fields that include preventive medicine and nursing care services with emphasis on the prevention of age-related diseases.

Emergence of New Business Opportunities

The ever changing and expanding medical care and welfare market in Japan has contributed to developing many new business opportunities; for example, in generics, over-the-counter drugs(OTCs), and health management services. In addition, novel drugs and medical devices, including biopharmaceuticals and nanomedicines, are under development. Companies from other industries are also entering the market, leading to dynamic business activities.

Government Supports Medical Care and Welfare as a Key Sector

The Japanese medical care and welfare industry, which promises the expansion of domestic demand as a result of the aging society, is expected to serve as an engine for the entire economy of the nation. The government regards the industry as one of the strategic areas, and has been implementing various deregulation and other incentive policies.

Regional Opportunities

Manufacturers of drugs and medical devices are strategically taking advantage of regional benefits in marketing their products to manage their businesses effectively. Local governments have also been engaged in improving the business environment to invite foreign companies.

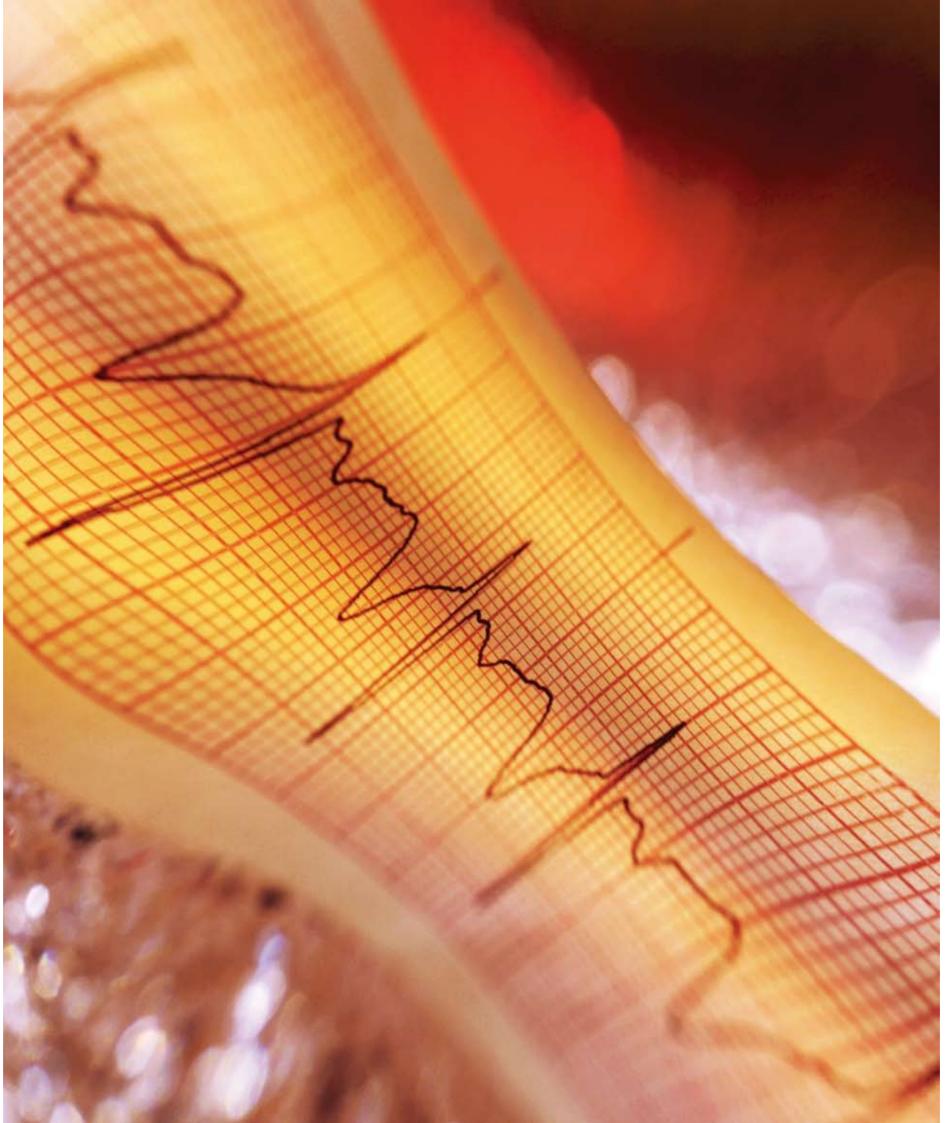
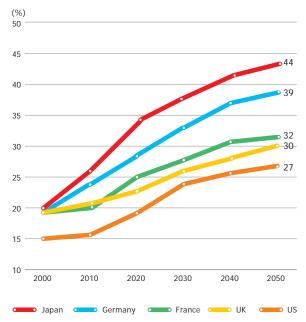


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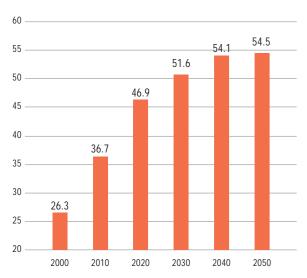
Market Overview

Percentage of population aged 65 or older



Source:"World Population Prospects:The 2010 Revision Population Database,"

Japan's number of people \geq 65 years of age $_{\text{(million people)}}$



Source: "World Population Prospects: The 2010 Revision Population Database," United Nation

Longer Life Spans Contributing to the Growth of the Medical Care and Welfare Market

Japan finds itself moving into an aging society, something that no other country in the world has yet experienced. A survey from the Ministry of Internal Affairs and Communications indicates that the number of elderly people 65 years of age and older has reached an all-time record of about 29.4 million as of September 2010, accounting for a large 23.1% of the entire population. According to data from the U.N. World Population Prospects, it is expected that one-third or more of the entire population will be elderly by 2050. The advent of an aging society will contribute to significant growth of the medical care and welfare market.

Growing Health Market

The people of Japan are highly aware of their health, enjoying the world's highest life expectancy. In 2003, the government enacted the Health Promotion Act to place more emphasis on its support for health promotion. The law requires local governments to provide the public with guidance on nutrition and health maintenance. In 2008, a specific health check up was introduced for the purpose of preventing lifestyle-related diseases, raising public awareness of health to much higher levels. In response to this growing awareness, the health market is expanding significantly and there is now a big, active market for not only healthcare- and welfare-related companies but also companies from other industries such as food and fitness.

Health power strategy initiated by the Government

According to the New Growth Strategy issued by the Cabinet in 2010, by 2020, the medical care market is expected to grow to 59 trillion yen as an achievable target, the welfare service market is expected to grow to 19 trillion yen and 2 million new jobs are expected to be created.

Well-organized Medical and Long-term Care Insurance Systems

Japan's universal health insurance system, which was established in 1961, provides all citizens with access to medical services. In contrast to other developed countries, a "freedom of choice" system of treatment has been established, enabling individuals to choose their own medical service or practitioner, resulting in a highly equitable healthcare system.

In 2000, the new long-term care insurance system was adopted. While under the previous nursing care system, the government agency decided which service was to be provided. The new system allows users to select the service they want to receive. The new system also encourages private companies and NPOs to enter the business, resulting in the emergence of a nursing care market on a vast scale.

Under the Japanese universal health care system, the insured is only required to pay about 30% of the medical expenses incurred and about 10% of the nursing care expenses incurred. Thus all Japanese people can receive the necessary medical and nursing care services.

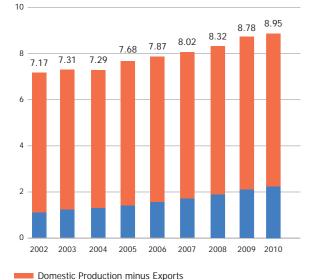


Key Sectors

Change in the domestic market size



Imports



Source: "2010 Annual Report on the Survey of Pharmaceutical Industry Productions," Ministry of Health, Labour and Welfare

2010 production values by therapeutic areas

Rank	Therapeutic areas	Production value (100 million yen)	As Percentage of total production values (%)
1	Cardiovascular drugs	14,017	20.7
2	CNS drugs	7,685	11.3
3	Other metabolic drugs	6,350	9.4
4	GI drugs	5,820	8.6
5	Blood/body fluid products	4,467	6.6

Note: "Other metabolic drugs" includes; Agents for liver disease, Antidotes, Agents for habitual intoxication, Agents for treatment of gout, Enzyme preparations, Enzyme preparations, Antidiabetic agents, and Combined preparations for metabolic disease etc.

Source: "2010 Annual Report on the Survey of Pharmaceutical Industry Productions," Ministry of Health, Labour and Welfare

1. Pharmaceuticals Market

The domestic market size is about 9 trillion yen, ranking second in the world after the U.S. In terms of production values by therapeutic area, "cardiovascular drugs", including anti-hypertensives, account for the largest portion at 20.7%, which is attributable to the aging of the population. Central nervous system (CNS) drugs, including psychoneurotic and antipyretic /analgesic /anti-inflammatory agents; "metabolic drugs", including anti-diabetics; and gastrointestinal (GI) drugs, mainly for the treatment of gastrointestinal ulcers, also account for large shares. One of the recent trends in the industry is the increase in the production of psychoneurotics. The high growth is expected to continue because more new anti-cancer drugs are to be approved.

In the therapeutic areas of biotechnology-based antibodies and low-molecular-weight targeted agents, foreign-affiliated companies have been demonstrating outstanding performance. As people become more health-conscious and the government places more emphasis on promoting self-medication, the OTC market, where non-prescription drugs containing the same active pharmaceutical ingredients as those in approved prescription drugs are sold, is expected to grow in the coming years. The revised Pharmaceutical Affairs Law, effective June 2009, allows convenience stores and supermarkets to sell non-prescription drugs other than some high-risk drugs even without a pharmacist on staff if a registered sales person is stationed there, which will diversify distribution channels. In these circumstances, more foreign-affiliated companies that possess patents on many active ingredients of prescription drugs are expected to enter the non-prescription drug market. In the area of orphan drugs, including some vaccines that are less marketable despite high social needs, the government is offering intensified assistance in developing these drugs. There are also high expectations for foreign companies to play an active role in this area, including partnership agreements with Japanese companies.



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sanofi-aventis K.K. Establishment: 2006 Country: France



Sanofi is a global and diversified healthcare leader that discovers, develops and distributes therapeutic solutions focused on patients' needs. With 100,000 employees in 100 countries, the company in 2011 recorded net sales of 33.4 billion Euros and business net income of 8.8 billion Euros worldwide. 8.6% of its sales came from Japan.

MARKET ENTRY

Sanofi-aventis K.K. (The company name will be changed to Sanofi K.K. in October, 2012) was formed in Japan in January 2006 as a result of the integration of Aventis Pharma and Sanofi-Synthelabo. The company has facilitated community-based business and provided therapeutic solutions appropriate to the Japanese market based on its global strenath.

PROSPECTS FOR GROWTH

In 2011, sanofi-aventis in Japan launched its vision to become the most trusted healthcare leader bringing health and happiness to Japan. Committed to offering a diversified portfolio through Japanese people's health journey, from prevention through treatment, the company is transforming itself into a dynamic future model of a healthcare company.

"We would like to continue contribution to Japanese patients through our diversified business platforms from prevention to treatment, which are comprised of our existing key therapeutic areas such as diabetes, oncology, cardiovascular & thrombosis, internal medicine, and vaccines business through Sanofi Pasteur K.K.. In addition to these, rare diseases portfolio provided by Genzyme, which the Sanofi Group acquired in 2011

will further accelerate the company's diversification and patient-centric approach," said Jez Moulding, President and Representative Director, sanofi-aventis K.K..



Orchid Pharma Japan KK (Orchid Japan) Establishment: 2008

Country: India

Orchid Chemicals & Pharmaceuticals Ltd. (Orchid) is a globally recognized, integrated pharmaceutical company with core competencies in the development and manufacturing of Active Pharmaceutical Ingredients (APIs) and Finished Dosage Forms as well as in drug discovery. Orchid employs over 4000 people, of which over 700 are scientists, technologists and other professionals.

MARKET ENTRY

In 2008, Orchid established a wholly owned subsidiary called Orchid Pharma Japan KK (Orchid Japan) to exclusively focus on the Japanese pharmaceutical market. Orchid considers that the Japanese generics market will grow at a rapid pace in the coming years due to an increasing recognition in the

government and healthcare sectors and the need for quality generic medicines. According to Orchid, the generics market in Japan currently estimated at around USD 2.5 billion could double to USD 5 billion in as little as 5 years.

PROSPECTS FOR GROWTH

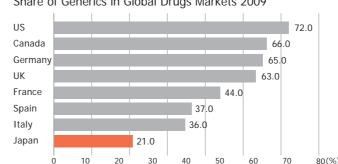
Orchid, with its comprehensive range of antibiotic and life style products, is ideally positioned to meet a broad spectrum of acute and chronic therapy needs of the growing Japanese healthcare market. Orchid expects to be among the leading players in this market

"We expect the Japanese generic market to grow rapidly over the next few years. The incorporation of Orchid Pharma Japan as a wholly owned subsidiary is a reflection of Orchid's commitment to the Japanese market."

Dr. K Raghavendra Rao, Managing Director, Orchid Chemicals & Pharmaceuticals Ltd.

The Growing Generics Market





Note: It is difficult to compare raw data because each country has different specifications for generics Source: Prepared from data available on the Japan Generic Medicines Association's (JGA)

website: data for Japan from JGA research: for others, from IMS Health

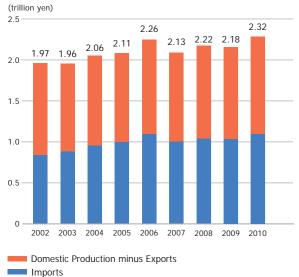
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Generic pharmaceutical companies have come to play an active role in recent years. In Japan, the quantitative share of generics is about 21%, still comparatively lower than in other countries. The spread of the use of generics should help reduce expenses incurred by patients and improve public finances for medical insurance. The government has set a goal to increase the share of generics to 30% or more by 2012, in order to meet the goal, They are promoting the use of generics by revising prescribing and dispensing practices, and providing incentives to pharmacies that frequently prescribe generics.

With these governmental supportive measures, the Japanese generics market is expected to grow and many foreign generic manufacturers have been entering the market to take advantage of the emerging opportunities.

Key Sectors

Change in the domestic market size



Source: "2010 Annual Report on the Survey of Pharmaceutical Industry Productions,"
Ministry of Health, Labour and Welfare

2. Medical Device Market

The domestic market size is about 2.3 trillion yen, ranked third following the U.S. and Germany. According to the Ministry of Health, Labor and Welfare, the market size is expected to reach about three trillion yen by 2015.

In terms of market size by type of products, "Diagnostic imaging system" and "Biological function supplemental devices/substitutes" account for large portions. The market for "Devices for measuring and monitoring biophysical phenomenon," is also growing. The production value of the market for "Devices for surgical procedures" is highest of all medical devices in Japan. As for "Diagnostic imaging system" Japan is highly competitive in this market, with half of all products being exported. The market for therapeutic instruments, on the other hand, largely depends on imports and therefore the presence of imported products is more conspicuous than in other markets.

Progress has been seen in the development of next-generation drug delivery systems (DDS), a system combining drugs and medical devices, and molecular imaging in the field of nanomedicine. As Japan has highly advanced elemental technologies such as electronics, IT technology, and fabric technology, it is expected that novel medical devices will be developed by making full use of these technologies.

Fiscal 2010 amount of production by medical device type

Rank	Classification	Production value (100 million yen)	As Percentage of total production values(%)	Representative examples
1	Devices for surgical procedures	4,277	25.0	Sterile tubes and catheters for blood vessel surgical procedures and sterile blood transfusion sets
2	Diagnostic imaging system	2,743	16.0	Whole body X-ray CT units General-purpose ultrasonic diagnostic imaging devices
3	Biological function supplemental devices/substitutes	2,288	13.4	Hollow string type dialyzers Artificial hip joints
4	Devices for measuring and monitoring biophysical phenomenon	2,091	12.2	Electronic endoscopes Electronic non-invasive sphygmomanometers
5	Dental materials	1,121	6.5	Dental gold-silver-palladium alloys Dental filling materials

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Source: "2010 Annual Report on the Survey of Pharmaceutical Industry Productions," Ministry of Health, Labour and Welfare

3 Case Study

Given Imaging K.K. Establishment: 2002 Country: Israel

Founded in Israel in 1998, Given Imaging Ltd. (Given) has become a global leader in capsule endoscopy with subsidiaries in the U.S., France, Germany, Singapore, Australia, and Japan selling its revolutionary "capsule" technology in more than 70 countries.

MARKET ENTRY

The company upped its attention to Japan by establishing a subsidiary there in 2002 called Given Imaging K.K. In the case of Japan, Given understood early on that trying to address it from another location would be tough. Given believed that succeeding in Japan would require intimate knowledge of customers, sales agents, key opinion leaders in the medical field, regulations, and clinical cases.

PROSPECTS FOR GROWTH

Today, Given is moving to introduce a new non-invasive capsule to explore the large intestine. Moreover, knowledge and information in Japan about small-intestine disorders still lags that of certain other countries. Given stands ready to speed up the diagnosis of internal disorders while fostering the recognition and understanding of capsule endoscopy. As knowledge and information about internal disorders expands, the need for capsule endoscopy is bound to grow in a number of new applications.

"By gaining a firm foothold in Japan and continuing to provide its high-quality medical services which can meet market needs, Given Imaging can bolster its reputation for high quality, safety, and perfection, thereby accelerating its sales worldwide."

Dr. Kazem Samandari, President Asia Pacific/Japan, Given Imaging Ltd.

Source: "Fiscal 2009 Summary of National Income," Ministry of Health, Labour

Ration to national income

National medical expenditure

3. Medical Care Services

The total national medical expenditure in Japan is about 36 trillion yen as of fiscal 2009. To ensure that the public will have access to high quality medical services, the government is taking measures; for example, to train more students to become doctors and improve medical care delivery systems in regional areas

According to a survey by the Ministry of Health, Labor and Welfare, there are over 176 thousand medical institutions in total across the nation, and the number is increasing steadily. In response to the need for more effective management of medical services, corporate activities in the field of medical systems are being intensified with the implementation of IT, including online processing of medical insurance claims, online medical records management, and remote medical care systems.

New businesses in the field of preventive medicine have emerged one after another in response to increased public awareness of the preventability of lifestyle-related diseases, including the provision of healthcare services by connecting medical devices to cell phones and/or networks and sales of health management programming devices.

Topics

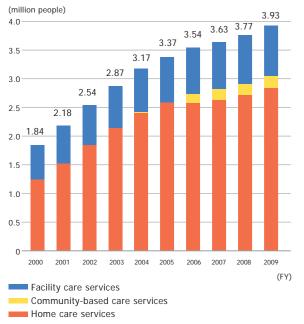
Expansion of Outsourcing in the Medical Care Field

Not only hospitals but also pharmaceutical manufacturers have started using outsourcing services strategically. More new businesses providing support services for developing medical products, including research and development, manufacturing, marketing, helping hospitals and pharmaceutical companies meet the requirements of the revised Pharmaceutical Affairs Law, and reducing research and development costs. Such new businesses may include gene analysis services, contract research organizations (CRO), site management organizations (SMO), contract manufacturing organizations (CMO), information-providing service businesses for medical institutions, and contract sales organizations (CSO).

Particularly in the CRO area, business opportunities for overseas companies with global networks, such as Quintiles Transnational, are increasing owing to the growing need for multinational clinical trials. The CRO market is rapidly expanding because the revised Pharmaceutical Affairs Law requires the conducting of post-marketing surveillance and because CRO services have expanded to cover the medical devices and health food industries.

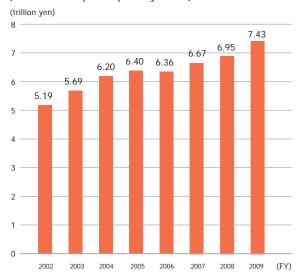
Key Sectors

Number of recipients of services under the long-term care insurance system



Source: "Long-term Care Insurance Report (annual report)," Ministry of Health, Labour and Welfare

Nursing care expenditure (benefits + expense paid by users)



Source:Prepared based on "Long-term Care Insurance Report," Ministry of Health, Labour and Welfare

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4. Welfare Services

The welfare sector includes activities that focus on the needs of elderly and disabled persons.

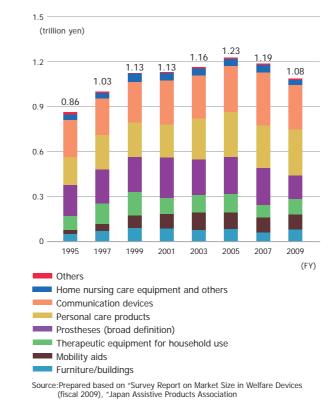
According to a survey by the Ministry of Health, Labor and Welfare, 3.9 million persons received nursing care services every month in fiscal 2009 under the long-term care insurance system, which is more than double the number of recipients in 2000. The combined amount of the benefits provided by the system and the remaining 10% that were paid by recipients themselves in fiscal 2009 was about 7.4 trillion yen. The market as a whole is expanding steadily.

With more emphasis being placed on the prevention of age-related diseases since 2006, the long-term care insurance system is being redesigned. In response to this move, companies in different service industries have entered the market. For example, some fitness companies have started providing fitness programs to adult day-care facilities and Local governments to prevent age-related diseases as well as providing training programs for staff engaged in adult nursing.

In 2006, Services and Support for Persons with Disabilities Act was enacted with the aim of providing uniform services to people with disabilities of all kinds. Before the establishment of this law, welfare services, medical services covered by public expenditures, and other services to help those with disabilities to live independent lives, had been provided based on different laws for different disabilities. Because the new law is designed to be more convenient for users, services under the law are expected to be used more frequently.

As stated above, systems for welfare services have been changed from those that only allow users to receive public services provided by government agencies, to systems that allow users to choose services based on their own needs. In the welfare services sector, therefore, more private companies are expected to enter, leading to the development of new markets.

Change in the domestic market size



5. Welfare Equipment

According to data from the Japan Assistive Products Association, the domestic market size for welfare equipment is about 1.08 trillion yen. In recent years, an increasing trend has been observed in the sales of personal care products (321 billion yen), including diapers and warm-water washing toilet seats.

The Long-Term Care Insurance Act covers fees for renting nursing care devices and expenses for purchasing some devices. The Supporting Independence for People with Disabilities Law covers expenses for purchasing and repairing assistive devices. These laws have increased options available for consumers. In recent years, price-reducing competition has ceased and the demand for high, value-added products is growing, showing a new change in consumer demand.

The use of universal design products, which are designed to increase usability by people of all ages and abilities, has also been promoted. Japan has been displaying innovative ideas and skills to develop products with high usability that meet users' needs. With its unique ideas and skills, the country is expected to develop new products in the expanding welfare market.

Topics Introducing Robots to Nursing Care and Welfare Services

According to a report compiled by the Robot Industry Policy Committee, the number of industrial robots put on the market by Japanese manufacturers accounts for more than 70% of the world total, indicating that Japan has the most outstanding technologies on a global level. There has been a move to apply these cutting-edge robotic technologies to the welfare field, for example, developing new robots and improving existing welfare devices. The use of these robotic technologies is expected to lead to the development of innovative welfare devices.

Development of "Robot Suit HAL®" (Hybrid Assistive Limb®)

Seeking to support, extend and expand human potential, Professor Yoshiyuki Sankai of the University of Tsukuba and CYBERDYNE Inc., a University of Tsukuba venture company, have developed the world's first full-body, Cyborg-type robotic suit. The suit is expected to find applications in a diverse range of fields in the future, including the areas of walking support and welfare for Japan's increasing elderly population, lifestyle support and next-generation rehabilitation for the elderly and the disabled, assistance in heavy work, and disaster rescue. In October 2008, CYBERDYNE Inc. started manufacturing "HALTM for well-being purposes," its first robotic suit for sale, which is for use at nursing care and welfare facilities. The products are leased to nursing care and welfare facilities via sales agencies. In addition, CYBERDYNE Inc. has also started to rental in July 2009. Some private hospitals have already started using them.



Photo: Prof. Sanki University of Tsukuba/CYBERDYNE Inc.

Policy Initiatives

Government Supports Medical Care as a Key sector

Since its declaration in 2008 that more efforts would be placed on improving social security services and the quality of medical care, the government has been implementing measures to resolve lags in the provision of drugs and devices so as to provide the Japanese people with the highest quality drugs and medical devices in the world as promptly as possible. It also provides support programs and implements system reforms consistently from research through to market launch so as to enhance the presence of drugs and medical devices developed in Japan in the global market, with the hope that the pharmaceutical and medical devices industry will serve as an engine for the entire economic growth of Japan.

Specific Reform Programs

• Faster Evaluation with Higher Quality

The government will clarify approval criteria and increase its number of reviewers of new drug applications by twofold and the number for new medical devices by about threefold. Emphasis will also be placed on the improvement of quality and quantity of clinical consultations to make review processes for approval more effective. These efforts will shorten the time required before launching new drugs by 30 months and new medical devices by 19 months.

Topics

Establishment of an Action Program for acceleration of medical devices review process

The Japanese government announced in its "basic policies for economic and financial reform," which present government guidelines for economic and fiscal management, to establish an "action program for the faster evaluation of medical devices" with the aim of attracting more foreign investment. Based on the action program, the government will focus its efforts on the following objectives in the coming five years:

1. Increase in reviewers

The number of reviewers will be increased from a current base of 35 to 104.

2. Introduction of three-track evaluation system

Depending of the level of novelty, medical devices will be classified into three levels to clarify the evaluation process. Each level will be evaluated by a specialized team.

3. Clarification of evaluation criteria

Evaluation standards and guidelines will be established.

In addition, by introducing a pre-application evaluation system for medical devices, the time required for approval of new medical devices will be shortened by 19 months in the coming five years.



Promotion of Multinational Clinical Trials

Aiming to promote the participation of Japan in more multinational clinical trials, the government is accelerating its efforts to establish a system to facilitate the conduct of such trials. The Large Scale Clinical Trial Network of medical facilities has already been formed. The government is also providing training programs for clinical research coordinators (CRCs). Since fiscal 2006, higher priority has been placed on consultations on multinational clinical trials. The government also adopted a new promotional plan under which efforts have been made to establish a system to encourage the best use of the Network and to improve the quality of medical facilities and personnel involved. In 2010, the global clinical trials center was established to serve as the central IRB and conduct highly advanced multinational clinical trials. As listed above, and in addition, the government has launched many new support programs.

Establishment of a "Special Zone for Cutting-edge Medical Development"

In fiscal 2008, the government started the "innovative technology special zone" project, a theme-specific project. The objective of the project is to overcome factors inhibiting the development of innovative technologies. For technologies adopted in the project, special research grants are provided. While the research is ongoing, researchers involved and relevant regulatory agencies discuss emerging issues and concerns. As the first phase of the project, the "special zone for cutting-edge medical development" has been introduced. The government has designated five research fields for this system and has selected 24 research projects in these fields. The five designated research fields are 1. iPS cell application, 2. regenerative medicine, 3. development of innovative medical devices, 4. development of innovative biopharmaceuticals, and 5. research and development of drugs and medical devices used for treatment and diagnosis that are important for public healthcare; serious disease areas such as cancer, cardiovascular diseases, neuropsychiatric diseases, and intractable diseases; orphan disease area and others). It is expected that promising technologies that could contribute significantly to developing drugs and medical devices in Japan will be developed in these research projects.

Regional Opportunities

Manufacturers of drugs and medical devices maintain their headquarters in the large markets of Tokyo or Osaka but have manufacturing plants and research laboratories in regional cities to take advantage of strategic, regional benefits. In addition, many local governments promote the development of medical care and welfare services because regional demand for such services is expected to grow steadily in the future. This section introduces some regions that have attracted particular attention as development centers for drugs and medical devices.

Topics

Japan's Government is implementing a comprehensive special zones scheme to make industry more competitive in the global market and to initiate a policy to develop specific regions. The International Strategic Comprehensive Special Zones were designated in December 2011 to promote industry and functions in the regions. Designated companies are expected to receive favorable treatment in terms of tax and regulations.

International Strategic Comprehensive Special Zones

- 1.Tsukuba international special zone
- Development and application of Boron Neutron Capture Therapy
- 2. Keihin waterfront district life innovation international special zone
- Speed up approval for drugs and medical device through international collaboration in clinical trials
- 3. Kansai innovation international special zone
- Accelerate application process through research and development

Kobe Medical Industry Development Project (Hyogo Prefecture)

Since its port opened to the world in 1868, Kobe has developed as an international port city, and its foreigner-friendly living environment, which include international schools among other attractions, is evidenced by the presence of about 45,000 foreign residents from 126 countries as of June 2011. Attracted by these features, about 200 foreign and foreign-affiliated companies have located their head offices in Kobe.

The Kobe Medical Industry Development Project is being implemented on the artificial island, called Port Island Phase II, offshore from downtown Kobe, with the aims of setting up R&D sites for cutting-edge medical technology and concentrating medical-related companies in the Kansai area through industrial-academic-governmental collaboration.

The medical-related companies clustering here — 216 companies as of February 2012 — span a wide range of specialties, including Olympus, who is engaged in studies of bone regeneration; and Carna Biosciences, who is handling protein kinase.

Nippon Boehringer Ingelheim Establishment: 1961 Country: Germany

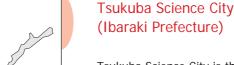
The Boehringer Ingelheim group is one of the world's 20 leading pharmaceutical companies. Headquartered in Ingelheim, Germany, it operates globally with approximately 140 affiliates in around 50 countries and 41,300 employees. On 17 November 2008, Nippon Boehringer Ingelheim Co., Ltd, a Japanese affiliate of Boehringer Ingelheim, announced the opening of the new Kobe Pharma Research Institute (KPRI).

"A broad range of research and development institutes which conduct basic research and clinical trials are gathered in Port Island. This location is an attractive business environment since pharmaceutical companies will profit from highly advanced medical science communities through which researchers have accesses to leading edge technologies and clinical research. We are convinced that the inspirational presence of many superior researchers and medical doctors in such a quality atmosphere leads to continuous and substantial research and development achievements."

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Dr. Yoshiki Nishikawa.

Director of the Kobe Pharma Research Institute Nippon Boehringer Ingelheim



Tsukuba Science City is the largest research and development center in Japan, with national experiment and research facilities relocated from Tokyo and its surrounding areas, and the University of Tsukuba as its core facilities. There are about 300 research institutions and companies, both national and private, and about 12,000 researchers. Takeda Pharmaceutical Company Limited, Astellas Pharma Inc., Eisai Co., Ltd. and other major pharmaceutical manufacturers have their research facilities in Tsukuba City. It takes about one hour to reach downtown Tokyo by car. The urban express railway takes passengers from Tokyo to the central area of Tsukuba City in 45 minutes. Tsukuba City is located about 40 km from Narita International Airport, a gateway to Japan.

Biomedical Systems Establishment: 2008 Country: U.S.

Biomedical Systems, a global provider of centralized diagnostic services for clinical trials, has opened its Asian Headquarters in Tsukuba. This new facility will initially provide logistical and technical support for equipment, operations and also training for studies located in Asia, particularly for Japanese based clinical trial sites.



"As Biomedical Systems is committed to growth

in the Japanese market, we opted for Tsukuba as the location of our first office due to the following facts: ease of access to Tokyo and its surroundings; close to Narita Airport; close to a train station, from where our employees and customers can easily reach our office; offer of a good pool of specialized professionals in areas related to our business; and lower operational costs and living costs in relation to Tokyo."

Marcio Akira Shiratsuchi,

Clinical Trial Coordinator, Biomedical Systems Japan GK

Shizuoka Pharma-Valley Initiatives (Shizuoka Prefecture)

Shizuoka Prefecture has launched its Fuji Pharma Valley Initiatives to form a cluster of medical, healthcare and biotechnology companies at the base of Mt. Fuji. The Pharma Valley Area (the eastern region of Shizuoka) offers a large concentration of medical, biotech and health-related companies. Through industry, academic and government cooperation (as well as medical, nursing and engineering cooperation) centered at the Shizuoka Cancer Center, Shizuoka has created a world-class R&D environment. The interconnection of everything from new drug and treatment development to the wellness industry creates a broad range of business opportunities. Many medical and pharmaceutical companies have their manufacturing plants in the prefecture and the production value of drugs and of medical devices rank first and second nationwide. According to industrial location trend surveys performed by the Ministry of Economy, Trade and Industry, the number of foreign firms with facilities (1,000m2 or larger and more than 50%

financed by foreign capital) in Shizuoka has grown to 26 over the 22-year period from 1989 to 2010, making Shizuoka prefecture the number one destination for foreign firms in Japan.

Production values by prefecture

3.1			
Rank	Drugs	Medical devices	
1	Saitama	Shizuoka	
2	Shizuoka	Tochigi	
3	Osaka	Tokyo	
4	Toyama	Oita	
5	Tokyo	Chiba	

Source:Prepared based on 2010 Dynamic Statistics of the Pharmaceutical Industry Production Annual Report