

The comprehensive service site that supports location of enterprises from both inside and outside Japan, into "Hyogo-Kobe" through one-stop services.

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## Kobe Port Island selected as an ideal infrastructure for research and development

Kobe Pharma Research Institute, Nippon Boehringer Ingelheim Co., Ltd. made a new start in the "Kobe Life Science Cluster" toward the next generation of medicine manufacturing.

In November last year, a Japanese corporation affiliated to a German major pharmaceutical company, Boehringer Ingelheim, opened a pharmaceutical research institute in Kobe Port Island, where the "Kobe Medical Industry Development Project" is progressing. They are advancing into this area, where cutting-edge medical technologies and related industries are concentrated, after ten years have passed since the start of the Project -- What does this mean and what kind of advantage does it bring to the institute? This question was asked to Director, Dr. Yoshiki Nishikawa.



Nippon Boehringer  
Ingelheim Co., Ltd.

Dr. Yoshiki Nishikawa  
Director  
Kobe Pharma Research Institute



An environment that enables devotion to research thanks to a well-equipped laboratory is an appealing factor.

- Tell us about the background of the establishment of Kobe Pharma Research Institute.

Our company originally had its head office and a research institute in Kawanishi city, but we decided to relocate the research institute when we relocated the head office to Tokyo. A prerequisite for the location was being within 100 km from Kawanishi city, so as not to require personnel transfers. As a result of a year of careful and repeated studies from various aspects regarding transportation, future expansibility, concentration of related businesses, and convenience in exchange and collaboration with overseas, through support by the think-tank, we chose Port Island.

One of the decisive factors was a special-purpose laboratory necessary for research that was located nearby. Due to the build-to-lease scheme, it was very appealing that we could concentrate on research without worrying about maintenance and control of a special-purpose laboratory with our own expense, as we had to do in the past.

-- How are the communications with Tokyo head office and overseas?

To the Tokyo head office, it is possible to even commute by using the Shinkansen from the city of Kobe. We overcome the distance by using e-mail, telephone conference, and TV conference on a daily basis. Also, Kobe Airport on an artificial island off the coast of Port Island gives easy access to cities in Japan and is directly connected to Kansai International Airport by a high-speed vessel, enabling smooth travel to and from various places in the world, including the Head Office in Germany.

The advantage is to be able to use cutting-edge technologies.

-- Tell us about the content of research.

Our Group's research institutes are located in various countries throughout the world, and respective institutes conduct research using their own countries' characteristics. Our research institute focuses on activities mainly in the three fields that are Japan's strengths.

One is new drug development. Japan has highly developed biochemistry and gene engineering, which are related to biomedicine, as well as countless new drug development ideas. We are working to establish methods to incorporate them into our Group's product commercialization system. Next is development of drug formulations. Japan's technological level is very high - for example, even drugs that cannot be easily made into tablets can quickly be made into a form for easy intake. Our research institute thus responds to advanced demands from all over the world. The third is pharmacokinetic study, which refers to researching the effects of drugs and interactions with other drugs in the body. In Japan there are abundant research means in this field, and our research institute's data are the source of our entire Group's pharmaceutical development.

-- What is the advantage of the "Kobe Life Science Cluster"?

The advantage is having the world's top-level technologies nearby and usable as needed. For example, the technology of the RIKEN Center for Molecular Imaging Science, which is adjacent to our institute, enables us to instantly see in vivo behaviors of chemical compounds that might be used to make medicine. Furthermore, we can be supplied with the most advanced technology in biology from the RIKEN Center for Developmental Biology. There are many workshops on developmental biology, and staff can directly learn from the most advanced scientists between work hours.

In addition, there are increasing expectations from the next-generation super compu-

ter, which is scheduled to start operation in fiscal 2012. Its service will enable simulation of instantaneous cellular reaction to drugs by high-speed calculation.

Overcome this severe era with an excellent research environment

-- Tell us about future issues and prospects.

Today, pharmaceutical companies throughout the world are very anxious, because drug patents will expire one after another in a few years. In order to survive, we have to stably supply safe drugs that are both beneficial for patients and are protected by a new patent. In these times, however, drugs have been well developed and there are almost no revolutionary drugs that can be called a blockbuster.

In order to develop good-quality drugs under such circumstances, an infrastructure is important. Today's research is based on accumulated technologies; and so Port Island, where advanced technologies in respective fields are accessible, is optimal as a research base. This place meets our needs to engage in excellent research at an excellent place. We hope that the concept of Kobe Medical Industry Development Project will be continued and medical-related businesses will be further concentrated, so that this wonderful infrastructure will be further enriched.

Kobe Pharma Research Institute, Nippon Boehringer Ingelheim Co., Ltd.

Address: [Port Island Phase II] 6-7-5, Minatojima-minamimachi, Chuo-ku, Kobe city / Site area: 7,000 m<sup>2</sup> / Total floor area: 7,377 m<sup>2</sup> [reinforced six-story building] / No. of employees: about 100

Nippon Boehringer Ingelheim Co., Ltd.

Head Office: ThinkPark Tower, 2-1-1, Osaki, Shinagawa-ku, Tokyo / Establishment: June 30, 1961 / Capital: 7,200 million yen / Operating revenues: 147,615 million yen (2007) / Business contents: Research & development, import, manufacturing, and marketing of pharmaceuticals; import / export and marketing of pharmaceutical active ingredients and intermediates  
No. of employees: 1,634 (as of January 1, 2008)

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## Present and Future of the Kobe Medical Industry Development Area

The Kobe Medical Industry Development Project started as one of the recovery activities from the Great Earthquake. In ten years from the start of the Project, over 130 medical-related companies have advanced to Port Island Phase II, which is the stage for the Project, based on 11 research institutions and facilities that support development of pharmaceuticals, regenerative medicine, and medical equipment. There are also 18 foreign / foreign-affiliated companies, forming Japan's largest-class medical cluster (concentrated base) where industry, universities and government collaborate beyond nationalities. Furthermore, Kobe's cutting-edge medicine is attracting greater attention from both Japan

and abroad for progressing undertakings such as the "Biomedical Cluster Kansai Project," which is pursued through cooperation with Osaka's research on new drug development.

As an undertaking with the next 10 to 20 years in mind, a concentration of advanced specialized hospitals centered on New Kobe City General Hospital, which will be relocated to Port Island Phase II, is planned, and a concentration of excellent clinical doctors / researchers, research institutions and related companies is expected. Furthermore, the world's fastest super computer is scheduled to start full-scale operation in fiscal 2012. New drug development and clinical studies will become

quicker and more efficient through use of simulations, leading to development of new drugs, treatments, and diagnosis technologies. As such, there is great expectation from use of the super computer in the medical industry.

Companies that will advance into Port Island are estimated to number about 200 in fiscal 2010 and about 310 in fiscal 2015. Widely ranging enterprises from global companies to venture businesses are expected to connect the results of research and development to actual business.

