From Kobe to the rest of the world

Heralding a new era in healthcare through trans-sector alliances

The Foundation for Biomedical Research and Innovation at Kobe (FBRI) is the pivotal organization that supports the Kobe Biomedical Innovation Cluster (KBIC), a model cluster in Japan and Asia. The FBRI promotes and facilitates collaboration and integration among the industrial, governmental, academic, and medical sectors to propose, from Kobe to the rest of the world, innovative solutions to issues of health and longevity.

We are also required to offer solutions to the great question of how to build a bright future in the face of the unprecedented challenge that Japan is undergoing ahead of the rest of humanity: rapid population aging and birth rate decline.

At the FBRI, we hope to continue to effectively fulfill our role of proposing, from Kobe to the rest of the world, solutions to problems along the way to realizing a society in which all members can enjoy good health and longevity, growing as a center of intelligence where human resources, information, knowledge and wisdom meet, and building bridges for trans-sector collaboration.

Your continued warm support and cooperation would be greatly appreciated.

Tasuku Honjo, M.D., Ph.D.
President
Foundation for Biomedical Research and Innovation at Kobe
At the heart of the Kobe Biomedical Innovation Cluster
leading Japan’s future

The Kobe Biomedical Innovation Cluster (KBIC) started as a project to reconstruct Kobe’s economy, which had been devastated by the Great Hanshin-Awaji Earthquake, as well as to protect and nurture local residents’ lives and contribute to the international community. More than twenty years have passed since the launch of KBIC in 1998. During this period, the FBRI, established in March 2000 as the main organization supporting the KBIC, has vigorously pursued biomedical cluster formation in Kobe through advanced clinical research and other efforts toward the construction of next-generation healthcare systems.

The KBIC has indeed developed into a remarkable healthcare cluster representative of Japan, concentrating about 370 companies, organizations, and research institutions, as well as a number of highly specialized hospitals. The FBRI is expected to continue making equally significant progress, promoting joint projects and other forms of collaboration among corporate, scientific, academic, and medical institutions located at the KBIC, leading to the development of innovative medical technologies and the creation of innovations beneficial to Kobe’s economy.

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The Foundation for Biomedical Research and Innovation at Kobe (FBRI), established in March 2000 through funding by Kobe City and Hyogo Prefecture, is the pivotal organization that supports the development of a center of biomedical industry and research in Kobe (“Kobe Biomedical Innovation Cluster” or “KBIC”).

The FBRI is charged with general coordinating functions to promote and facilitate collaboration and integration among industrial, governmental, academic, and medical sectors; to support R&D leading to advances in healthcare and their clinical application; and to work toward the construction of next-generation healthcare systems. Through these activities, the FBRI expects to contribute to the creation of innovative healthcare technologies and the formation and accumulation of healthcare-related industries in Kobe. The FBRI’s ultimate goals are to revitalize Kobe’s economy, enhance local residents’ wellbeing and contribute to the international community.

President: Tasuku Honjo, M.D., Ph.D.
Established: March 17, 2000
Basic assets: 1237.28 million yen (as of March 31, 2020)

Organizational chart

Foundation for Biomedical Research and Innovation at Kobe

- President/ Representative Director and Executive Director/ Executive Director/ Managing Director/ Director
- Management Planning Department
- Audit Office
- Institute of Biomedical Research and Innovation (IBRI)
- Translational Research Center for Medical Innovation (TRI)
  - Division for Regenerative Medical Product Development
- Research & Development Center for Cell Therapy (RDC)
- Center for Cluster Development and Coordination (CCD)

From a devastating earthquake to a brighter future
Kobe Biomedical Innovation Cluster

On January 17, 1995, the Great Hanshin-Awaji Earthquake struck Kobe. The severely damaged Kobe pledged to not simply reconstruct itself in economic terms but to do so by becoming a place where life is cherished above all. The city thus launched a project to develop a prime hub of healthcare research and related services.

The Kobe Biomedical Innovation Cluster (KBIC) has since been developing on Port Island, gathering together R&D centers focusing on state-of-the-art medical technologies and businesses in healthcare-related fields, which are considered 21st-century growth sectors. Here, vigorous efforts continue to construct new healthcare systems that integrate basic research, clinical applications, and industrialization.

Objectives

- Translational research
- Support for industrialization
- Human resource development

Core functions

- Creation of employment and revitalization of Kobe’s economy
- Promotion of citizens’ health and welfare
- Contribute to the improvement of medical standards in Asian countries
From a devastating earthquake to a brighter future

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- Promotion of citizens’ health and welfare
- Contribute to the improvement of medical standards in Asian countries
Rebalancing the immune system, reviving the healthy life

Dysregulation of the immune system triggers a wide variety of diseases. The objective of our research is to develop a novel therapeutic approach to inflammation-related diseases by controlling the intensity of immune activity to appropriate levels. The human body has physiological feedback mechanisms that downregulate proinflammatory activity. These immunoregulatory mechanisms, known as immune checkpoints, are promising targets of therapeutic intervention. Pharmacological stimulation of immune checkpoints will be able to attenuate excessive immune activity, thereby alleviating various proinflammatory disorders. We also aim to discover diagnostic markers, which indicate early inflammatory changes. Early recognition of the patient’s potential risk for eventual proinflammatory pathogenesis should be useful in determining clinical approaches.
Elucidating the mechanism of aging for healthier and longer life expectancy

Aging, the common and greatest risk factor of all age-related diseases, is closely related to cancer, heart disease, senile dementia, cerebrovascular disease, and other life-threatening diseases. This means that elucidating the mechanism of aging and developing a method to control aging are crucial to overcoming age-related diseases. We developed mouse models of aging, which are widely used around the world, to elucidate the mechanism for the onset of age-related diseases. We also identified sirtuins, known as anti-aging genes, to examine how they delay aging and prolong life. Interestingly, our recent research findings indicate that delaying human aging and extending life expectancy is not quite a pipedream. Focusing on the analysis of sirtuins and the Klotho gene, named after the Greek goddess Klotho who spun the thread of life, we are working on methodologies to clarify the mechanism for the onset of age-related diseases and thus suppress aging, with the goal of overcoming aging and age-related diseases.

Department of Brain and Neurodegenerative Disease Research

Professor: Minako Hoshi

Toward a precise understanding of human brains; research that can help you maintain your physical and emotional health and live life to the fullest, at any age

Your brain determines the essence of "what you are," that is, how you would like to live your life right now and in the future, based on memory and learning up to now. Patients suffering from neurodegenerative disorders such as Alzheimer's disease gradually lose their memory and learning ability as neurons degenerate in their brains. We are clarifying at the molecular level precisely why and how neurons die. Based on this understanding, we sincerely hope to apply our research findings to prevent the death of neurons so that everyone can fully live their life in good health, maintaining the ability to self-recognize, and make decisions for themselves throughout their life.

Department of Regenerative Medicine Research

Professor: Akihiko Taguchi

R&D of a novel therapy for regeneration of brain functions

It had been believed that neuronal regeneration cannot occur after injury. The major causes of being bedridden are stroke and dementia, and there is no effective therapy for regeneration of brain functions at present.

We have demonstrated that neuronal regeneration after stroke can be achieved by therapeutic angiogenesis using hematopoietic stem cells. Our clinical trial of autologous hematopoietic stem cell transplantation for stroke patients showed favorable trends in acceleration of functional recovery. Furthermore, we have recently figured out the mechanism of how hematopoietic stem cells activate angiogenesis in ischemic tissue. Based on these findings, R&D projects of novel therapy for stroke and dementia are ongoing.

Department of Hematology-Oncology

Group Leader: Daichi Inoue  (Professor: Toshio Kitamura)

Creating a society where people are not susceptible to cancer and can have hope even after being diagnosed with cancer

As the population ages, one in two people will be diagnosed with cancer in their lifetimes. The objective of the Department of Hematology-Oncology, which was established in 2019, is to identify unknown mechanisms underlying cancers in terms of genome, epigenome, transcription, splicing, proteins and others and, in cooperation with other research institutes in Japan and abroad as well as with industry, academia, and government, to apply our research results to cancer treatment. Our particular focus is on acute myeloid leukemia, myelodysplastic syndrome, and other malignant diseases with poor prognosis. We attempt to understand cancer from various perspectives beyond conventional wisdom in oncology to open a door to new science and thereby contribute to medical care.
Tri's ultimate goal is to control all diseases. To this goal, we offer powerful support to the development of new medical technologies to realize their practical application in Japan and spread them all around the world. A number of technologies whose development we have supported since TRI’s foundation, such as those in regenerative medicine and tissue engineering, and new medical equipment and devices have been granted pharmaceutical approvals one after another, gradually reaching and new medical equipment and devices have been granted approvals one after another, gradually reaching patients. These innovations have considerably improved the prospect of overcoming diseases for which no treatment existed before. We are determined to continue and reinforce our efforts to realize a society of active, healthy and happy centenarians.
Development of clinical and scientific infrastructure

TRI was originally established in 2003 as the first academic data center and statistical analysis center jointly by Kobe City and the Ministry of Education, Culture, Sports, Science and Technology (MEXT). It has accepted research consultations from all researchers and has provided consistent support from research planning and data analysis to the preparation of scientific papers for clinical development and evidence generation. In April 2018, under its new name, “Translational Research Center for Medical Innovation,” it was reorganized around two pillars: the Division of Medical Innovation, which supports the development of new healthcare solutions for patients, including regenerative medicine; and the Division of Health Data Science, which supports the assurance of data integrity in clinical research. TRI vigorously works for medical innovation from a global perspective, geared toward the ultimate goal of overcoming intractable human diseases.

Promoting medical innovation

From 2007 through 2017, TRI promoted infrastructure consolidation and research & development (R&D) support of academia through medical innovation programs initiated by MEXT, the Ministry of Health, Labour and Welfare, and the Japan Agency for Medical Research and Development (AMED). Since 2018, TRI has been participating in projects led by the Japan Science and Technology Agency (JST), advising scientists of basic research which is the upstream of R&D toward practical application, organizing interdisciplinary encounters of researchers, and implementing other activities that support the development of research results and technologies.

TRI is open at all times to requests for consultation on R&D of various kinds from researchers both in Japan and abroad. This is one way in which TRI provides its powerful support for medical development.

In the area of regenerative medicine, which TRI has been actively supporting on a continuous basis, TRI’s assistance has led to the development of new healthcare solutions benefitting patients: the world’s first regenerative treatment for spinal cord injury, approved in 2018; and Japan’s first regenerative treatment for tympanic membrane perforation, approved in 2019. More achievements as shown in the illustration are expected within the next few years. TRI is committed to providing effective R&D support to bring innovative treatments to patients at the earliest possible time.

Establishing “Learning Health Care System”

In this new era of utilizing enormous amount of data (Real World Data) collected via electronic health records (EHR) and digital health devices, TRI is working to establish a new Learning Health Care System mechanism that combines research and clinical practice. To this end, TRI has already developed its original electronic data capture (EDC) system “eClinical Base.” With the view of new drug development and medical technology innovation, TRI will address to create the new mechanism on its accumulated experience by actively utilizing artificial intelligence (AI) that enables medical innovation on a global scale.

* The “TRI” and “TRI and Next One” logos are registered trademarks of the Foundation for Biomedical Research and Innovation at Kobe.
Ensuring cell safety

Among all the safety tests for cells differentiated from pluripotent stem cells such as iPS and ES cells, the most important one is the tumorigenicity testing. At the RDC, we carefully determine what should be done in safety tests, design test contents and conduct tests accordingly in projects commissioned by the national government and other parties. These test results are used as important data in the implementation of clinical products. We are working on the formulation of guidelines that ensure safety based on test results. We are also carrying out joint R&D projects with other research institutions and companies toward the goal of standardizing quality inspection methods and new cell culture methods needed to reduce the manufacturing cost of cell therapeutic products while maintaining their safety. We draw on the techniques and knowhow acquired through such projects in carrying out cell inspection and assessment commissioned by research institutions, universities, and companies. It is hoped that these research activities will lead to the establishment of safe and standardized cell therapy methodology.

Manufacturing cell products, managing and operating cell product-manufacturing facilities

The manufacturing of cell products for clinical studies commissioned to the RDC is conducted at facilities and in procedures that conform to PIC/S-GMP*. The RDC also owns, operates and manages cell processing center (CPC) facilities. The RDC is planning to develop its CPC system to be highly operational as a commissioned manufacturer of commercial cell products in the future. We also provide consulting services to accelerate the clinical application of cell therapy, drawing on our experience and expertise accumulated through CPC management and operation.

For safe, reliable, and accessible cell therapy

Toward clinical application of cell therapy, the RDC pursues three principal activities. Firstly, in its commissioned cell product manufacturing, the RDC not only carries out research and development but also manages and operates its own cell product-manufacturing facilities. This enables the RDC to be engaged directly in the detection of important problems in cell manufacturing and the discovery of concrete solutions.

Secondly, the RDC conducts research and development relating to cell safety test methods and assessment criteria. Since standardized methods or criteria are yet to be established, the RDC has been drafting guidelines for eventual standardization. In this process, we realized the importance of identifying culture conditions that minimize the risk of genetic mutation, thus adding cell culture methods to our list of research themes.

Thirdly, the RDC has been working in collaboration with private businesses to develop next-generation automatic cell culture systems, which would secure the safety and quality of manufactured cell products while maintaining and increasing productivity. We believe that our activities in cell product manufacturing and research and development regarding cell quality and safety have enabled us to identify problems to be solved toward the clinical application of cell therapy and take steps toward finding solutions.

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Development of a next-generation automatic cell culture system

To make cell therapy generally accessible, cell product manufacturing must be established as a sustainable industry. At present, most cell products can only be manufactured manually by human operators in large-scale CPCs equipped with clean rooms, which is a major manufacturing cost factor. Moreover, the current product safety inspection protocol requires destructive testing of sampled final products, posing problems for safety and productivity.

To eliminate these problems, the RDC has been working to develop a next-generation automatic cell culture system capable of assuring the quality of all products in each production lot through non-destructive testing. Based on the concept of intelligent cell processing (ICP), the RDC is pursuing this project with various partners, each specializing in a particular area, such as IT, inspection and analysis, and the development of manufacturing process control systems.
Promoting open innovation through trans-sector interaction and collaboration

The CCD explores and searches for seeds for R&D at universities, research centers, and companies, and needs in the field of healthcare, for eventual practical application or commercialization of promising seeds. The CCD also promotes the creation of new innovations through trans-sector interaction and collaboration.

The CCD operates an open innovation program in which joint research projects making use of the KBIC’s R&D infrastructure comprising research centers and facilities are proposed to domestic and international pharmaceutical companies and other potential partners. The CCD also organizes various networking events, including “Kobe Regenerative Medicine Study Meetings” for the industrialization of regenerative medical technologies through collaboration between related companies and researchers, thereby promoting interactions among KBIC-based companies and researchers in the hope that they will lead to new innovations.

Promoting the KBIC’s international activities

The CCD supports the KBIC’s international activities, such as interaction with major bio-clusters outside Japan, attendance at or participation in international exhibitions and symposiums, to publicize the KBIC and build networks on a global basis. The CCD also engages in global information exchange concerning research seeds and needs and industrial trends in medical equipment, drug discovery and biotechnology to promote matchmaking between KBIC member companies/researchers to realize international joint research/development projects.

To expand the presence of KBIC globally, the CCD engages in vigorous promotional activities, co-hosting events with overseas clusters and disseminating information by updating the KBIC web news and publishing the E-newsletter overseas.

Assisting small and medium-sized local businesses and KBIC-based companies in their projects

The CCD is staffed with dedicated coordinators specializing in medical devices, drug discovery, and other specific fields. They assist companies and researchers in various aspects of the process toward practical application and commercialization of R&D seeds. The KBIC Liaison Office, opened in April 2018, serves as a one-stop point of contact that responds to a broad range of support needs. The support services offered cover, among others, seed exploration, matching, and consultation regarding R&D and commercialization, as well as strategic planning at the PMDA Cooperation Center for Regulatory Science Strategy Consultation.

To support in silico drug discovery using the supercomputer, the CCD is developing the drug discovery application “K4,” which is easily operable and capable of high-precision simulation. The CCD also supports the commercialization of R&D seeds with the help of Healthcare Development Supporters, members of the general public who voluntarily cooperate for the development of healthcare products and services. The CCD is also active in nurturing startups for their future global expansion. This involves discovering and assisting startups mainly in seed to early stages, building a startup ecosystem.

Environmental improvement and strategic information dissemination

The CCD pursues continued environmental improvement at the KBIC in consideration of the needs and wishes of its constituent research centers, universities, and businesses so that they can engage in their activities in an environment worthy of a research cluster of international standard. The CCD also supports the stakeholders’ initiatives within the KBIC that improve their R&D activities or operational environment.

The CCD is pursuing information dissemination activities vigorously, including the management of the KBIC website, the use of social networks, the distribution of email newsletters, and the organization of events. These activities are expected to effectively disseminate information on the KBIC and its past activities and achievements, making them widely known within and outside Japan.

KBIC’s “concierge” Advising and nurturing for future healthcare

The Center for Cluster Development and Coordination (CCD) was established in 2005 to accelerate KBIC’s development by providing assistance to KBIC-based companies and small and medium-sized local companies in their business projects, promoting collaboration between the KBIC and overseas clusters, and facilitating the trans-sector partnership.

The CCD coordinates collaboration and integration among various companies, universities, research centers, and medical institutions that constitute the KBIC for synergetic effects from their concentration. Under its seamless support system, the CCD also promotes the KBIC’s international activities.
Promoting open innovation through trans-sector interaction and collaboration

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Manufacturing cell-based therapeutic products for regenerative medicine

Implementing and supporting regenerative medical product manufacturing and quality control

The Division for Regenerative Medical Product Development manufactures regenerative medical products and carries out related quality control for clinical studies. The Division also provides support for associated manufacturing and quality control and carries out R&D for practical application of new regenerative medical products.

Activity

Manufacturing a cell-based therapeutic product for corneal regeneration

The cornea on the surface of the eye is covered by the corneal epithelium. When the cornea is degenerated or damaged, the eye surface can become opaque or overlaid, seriously compromising vision. This condition is extremely difficult to treat. Prof. Shigeru Kinoshita, Prof. Chie Sotozono, and their colleagues at the Kyoto Prefectural University of Medicine have developed a cell-based therapeutic product, an epithelial sheet (epithelial sheet developed from oral mucosa) for clinical application. This product is highly effective in repairing the damaged eye surface that is otherwise difficult to treat.

The epithelial sheet is manufactured from cells collected from patient oral tissues and cultured on an amniotic membrane as a matrix. Already transplanted to many patients as part of clinical studies or in cases of advanced medical treatment, epithelial sheets have been proven to be safe and effective. To make this treatment generally accessible in hospitals, clinical studies have been conducted toward the goal of commercializing it.

Having undertaken the whole process of manufacturing and quality control (inspection) of this cell product, the Division is continuing the project so as to have the product approved and made widely available.

Activity

Manufacturing a cell-based therapeutic product for cartilage regeneration

Knee joint cartilage has a very limited capacity for self-repair. Once injured, it cannot be repaired or regenerated in most cases. A cell-based therapeutic product for cartilage regeneration has been developed in Germany. Its manufacturing process involves culturing the patient’s cartilage cells in collagen gel serving as a scaffold for cell culture. Transplanted, the product is expected to repair damaged cartilage, thus removing the accompanying pain and restoring the functionality of the knee.

In Europe, this product has already been transplanted in many patients for cartilage regeneration. Its safety and efficacy have already been confirmed. Initial clinical study (an investigator-initiated trial) is already done in Japan. To make this treatment technology available in hospitals in Japan, it is imperative that a sponsor-led clinical trial be conducted so that the product can be commercialized within Japan.

The Division has already manufactured this product and conducted its quality control (inspection) within the framework of the investigator-initiated clinical trial. The Division intends to continue the production for the future sponsor-led clinical trial.
KBIC
Kobe Biomedical Innovation Cluster

Kobe, a beautiful port city between the sea and mountains, is located in the southern part of Hyogo Prefecture. The Kobe Biomedical Innovation Cluster (KBIC) on Port Island is conveniently situated, accessible by Port Liner in only six minutes from Kobe Airport and 12 minutes from Sannomiya in central Kobe. Sannomiya is served by several railway networks and the municipal subway system. KBIC has easy connections to major cities across Japan via Kobe Airport, and in the rest of the world via nearby Kansai International Airport.

FBRI’s principal activity centers
Institute of Biomedical Research and Innovation (IBRI)

KIMEC Building (KIMEC)

Creative Lab for Innovation in Kobe (CLIK)

Translational Research Informatics Center (TRI)
Kobe Hybrid Business Center (KHBC)

International Medical Device Alliance (IMDA)

- FBRI manages and operates rental laboratories, offices, and seminar/conference rooms that meet diverse needs.
Record of Continuous Results

In October 2018, the KBIC celebrated the 20th anniversary of the beginning of the discussion on the Kobe Medical Industry Development Project. Up to the present, about 370 healthcare-related organizations and businesses have been established on Port Island. Drawing on this concentration, which facilitates translational collaboration and integration, the KBIC aims at creating totally innovative medical technologies, equipment and pharmaceutical drugs.
2014
- The world’s first transplant using the patient’s own iPS cells (target disease: Age-Related wet Macular Degeneration) was conducted.
- Kobe was selected as the site of the post-K computer.
- Kobe Biomedical Innovation Cluster was designated as Kansai Innovation Comprehensive Global Strategic Special Zone.
- International Medical Plaza opened.

2013
- Kobe Minimally Invasive Cancer Center opened.
- Nishi Memorial Port Island Rehabilitation Hospital opened.
- Child Chemo House opened.

2010
- RIKEN Advanced Institute for Computational Science (present RIKEN Center for Computational Science, K Computer) opened.

2012
- Joint use of the K Computer commenced.
- Foundation for Biomedical Research and Innovation was reorganized as a public-interest corporation.

2011
- The number of healthcare-related businesses and organizations located on Port Island reached 200.
- Kobe Biomedical Innovation Cluster was designated as Kansai Innovation Comprehensive Global Strategic Special Zone.
- Kobe City Medical Center General Hospital was relocated to a site adjacent to IBRI.
- Computational Science Center Building (Computational Science Research Support Center) opened.
- Graduate school of simulation studies, University of Hyogo was established.
- Integrated Research Center of Kobe University was established.
- International Medical Device Alliance (IMDA) opened.
- Kobe Hybrid Business Center (KHBC) opened.

2018
- The Foundation’s official name was changed.
- RIKEN Center for Biosystems Dynamics Research (BDR) and RIKEN Center for Computational Science (RICCS) were established.
- 20th anniversary of the Kobe Medical Industry Development Project
- Basic agreement signed by and between RIKEN and the City of Kobe

2016
- Hyogo Prefectural Kobe Children’s Hospital was relocated and opened.
- "Kobe Life Science Promotion Vision" was revised (revised and enlarged).

2019
- The successor to the supercomputer “K” was officially named “Fugaku.”
- Preparatory work commenced for the establishment of Hanjo Kobe Research Center for Biomedical Innovation (HBI).

2020
- Director of Kobe Medical Industry Development Project Discussion
- KBIC Milestones

Group was established (chaired by Dr. Hiroo Imura, then Director of Innovative medical technologies, equipment and pharmaceutical drugs.

Translational collaboration and integration, the KBIC aims at creating totally

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In October 2018, the KBIC celebrated the 20th anniversary of the beginning of

Kobe Medical Industry Development Project Study Group

Kobe Medical Industry Development Project Study

CDB

RIKEN Center for Developmental Biology

Kobe Incubation Office (KIO) opened.

Kobe International Business Center (KIBC) was completed.

Institute of Biomedical Research and Innovation (IBRI) Laboratory commenced full-scale operation.

Translational Research Informatics Center (TRI) opened.

IBRI Hospital opened.

Institute of Biomedical Research Activities (BMA) Business Incubation Center opened.

Center (BT Center)/Kobe University Human Resource Development

Institute of Biomedical Research and Innovation (IBRI) Program opened.

"Kobe Life Science Promotion Vision" was presented.

Innovative Research in Science University (Faculty of Frontiers of Science; K Computer) opened.

RIKEN Center for Computational Science (present computational science research support center) opened.

Kobe City Medical Center General Hospital was relocated to a site adjacent to IBRI.

Kobe Biomedical Innovation Cluster was designated as Kansai Innovation Comprehensive Global Strategic Special Zone.

International Medical Plaza opened.

Kobe Eye Center opened.

Hyogo Ion Beam Medical Center Kobe Proton Center opened.

The world’s first transplant using donor iPS cells (target disease: Age-Related wet Macular Degeneration) was conducted.

IBRI Hospital was merged into Kobe City Medical Center General Hospital.

Kobe Center for Medical Innovation (KCMII) opened.

International Clinical Cancer Research Center of Kobe University opened.

Kobe Eye Center opened.

Hyogo Ion Beam Medical Center Kobe Proton Center opened.

"Kobe Life Science Promotion Vision" was revised (revised and enlarged).

The number of healthcare-related businesses and organizations located on Port Island reached 300.

"Compass to Healthy Life" Research Complex program, managed by the Ministry of Education, Culture, Sports, Science and Technology, commenced.

RIKEN Integrated Innovation Building (IIB) opened.

Integrated Research Center of Kobe University, Annex Building, opened.

300 healthcare-related businesses and organizations
FBRI’s Fourth Management Plan

The FBRI’s Fourth Management Plan was produced in a report entitled “New R&D Strategy,” penned mainly by FBRI President Dr. Tasuku Honjo. This report itself was formulated in response to some important recent changes, such as the integration of the Institute of Biomedical Research and Innovation (IBRI) Hospital into Kobe City Medical Center General Hospital and the development of the Kobe Biomedical Innovation Cluster into a full-fledged town housing about 370 healthcare-related businesses and organizations.

This Management Plan, under which the FBRI’s official name has been changed, cites as the FBRI’s objectives promotion of the application of innovative medical technologies and the establishment of comprehensive coordinating capabilities to realize collaboration and integration among the industrial, governmental, academic, and medical sectors. In working toward these objectives, the FBRI is mainly led by four centers working closely with one another: the Institute of Biomedical Research and Innovation (IBRI) in charge of research, the Translational Research Center for Medical Innovation (TRI) and the Research and Development Center for Cell Therapy (RDC) in charge of promoting practical application, and the Center for Cluster Development and Coordination (CCD) for coordination and business development.

We are convinced that our endeavors thus organized will allow us to propose novel Kobe-originating medical technologies that can meet hitherto unmet needs at the earliest possible time, while attracting more businesses and research organizations to Port Island, thereby further invigorating the Kobe Biomedical Innovation Cluster.

The Fourth Management Plan is viewable at https://www.fbri-kobe.org/about/plan.php (Japanese only)

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