Fukushima Global Medical Science Center
Fukushima Medical University
Supporting Fukushima’s Recovery from the Disaster through Medical Services

Fukushima Global Medical Science Center (FGMSC)

Supporting the revitalization of Fukushima from the medical and health perspectives as we aim for a future the world can share.

Kiyoshi Saito, M.D., Director of FGSMS

The Fukushima Global Medical Science Center is one of the main pillars in the work undertaken to revitalize Fukushima and forms an integral part of the Fukushima Prefecture Revitalization Plan. Our role is to regenerate and revitalize our regional society from the medical perspective and to demonstrate these revival efforts to the entire world.

The Center has three goals: to watch over the health of the citizens of Fukushima Prefecture, to promote advanced research and the revitalization of industry, and to provide advanced medical care. We are achieving this with an organization consisting of five centers, two divisions and the Futaba Emergency Medical Assistance program (acting as the Futaba General Medical Assistance Center of the Fukushima Medical University Hospital). The Radiation Medical Science Center for the Fukushima Health Management Survey and the Health Promotion Center run long-term programs to watch over the health of the residents of Fukushima Prefecture after the 2011 Tohoku earthquake and tsunami and the Fukushima Daiichi nuclear disaster, and aim at promoting the health of Fukushima Prefecture residents and extending their healthy life expectancy. The Medical-Industrial Translational Research Center and the Advanced Clinical Research Center collect and analyze various types of specimens and clinical information, develop new diagnostic and therapeutic agents, and promote the development of the medical industry for the revitalization of the region. The Advanced Clinical Division (the Mirai Building of the Fukushima Medical University Hospital) and the Thyroid and Endocrine Center use advanced medical equipment to diagnose diseases at an early stage, providing advanced, highly specialized treatment thanks to cooperation between the different fields. The Education and Human Resource Development Division supports the different centers and divisions and develops the medical personnel of the future.

We feel it is our mission to relay to the entire world and to future generations what we have learned from the natural disasters and nuclear accident in 2011. At the Fukushima Global Medical Science Center, we are constantly striving to be a leading force in these efforts.
Devoting ourselves to the wellbeing of Fukushima’s people, we gather wisdom in the service of our prefecture’s revitalization.

Kenji Kamiya, M.D.,
Director of Radiation Medical Science Center for the Fukushima Health Management Survey

The Fukushima Health Management Survey was launched in the aftermath of the Fukushima Daiichi Nuclear Power Plant accident with the aim to monitor the physical and mental health of the residents of Fukushima, and to improve their future health by promoting disease prevention, early diagnosis, and early treatment. This survey is carried out by FMU under the consignment contract with Fukushima Prefecture, with the cooperation of domestic and foreign research centers, administrative bodies, international agencies, and academic societies.

After the nuclear power plant accident, there arose a great concern about the health effects of radiation—especially its impact on children’s thyroid glands—as well as the deterioration in other fundamental aspects of healthy living, such as physical activities, diet, and sleep. Mental health issues were also prevalent. Through the survey, we try to gain a detailed understanding of people’s health status in order to provide thoughtful care and further promote wellbeing for all.

It is also our duty to disseminate survey results domestically and internationally as an intellectual legacy to humankind. This ongoing effort is intended for the betterment of current and future generations.

In the course of our survey, we collaborate with prefectural and municipal authorities, whose service to residents is indispensable. Together, we have an unshakable resolve to rebuild and revitalize Fukushima through benevolent service to the people, with help from professionals inside and outside Fukushima who join us with wishes for recovery in their hearts.
Advanced Clinical Research Center

We’d like to contribute to early treatment and new drug development by making the most of cyclotron and PET/MRI.

Our center, which went into full operation in June 2016, is armed with state-of-the-art medical facilities capable of early diagnosis of cancers, brain and heart diseases using diagnostic imaging. Our center also became Japan’s first medical institution to be equipped with a medium-size cyclotron that enables us to create new drugs necessary for advanced treatment. Furthermore, we have created one of Japan’s best environments that clears international standards for safety and quality control of pharmaceuticals. By collaborating with pharmaceutical companies, we are expected to contribute to the creation of innovative drugs. Our PET/MRI, introduced for the first time in Japan, is highly effective for early detection of diseases due to images so clear that it can accurately identify the affected part and can also investigate body functions.

Now complete with an integrated environment capable of pharmaceutical production through to clinical studies and trials, in addition to medical treatment, we are highly motivated to promote research and development of innovative drugs. We’d like to foster human resources competent enough for these tasks.

Diagnostic equipment of the highest precision has been introduced. Our state-of-the-art medical capabilities enable early treatment.

Advanced Clinical Research Center conducts diagnostic imaging using state-of-the-art facilities and makes early diagnosis of various diseases, thereby ensuring the people of Fukushima can live safely and free of worry.

Ensuring people’s long-term safety and freedom from worry by establishing and operating bases of early detection backed by the most advanced medical equipment.

**Early detection is made possible by cutting-edge technologies**

Introduction of positron emission tomography (PET) and magnetic resonance imaging (MRI) equipment of the highest specifications for the first time in Japan.

![PET/MRI](image)

**Development of a therapeutic radioactive pharmaceutical**

The first 30MeV cyclotron introduced in medical facilities.

![Medium-size cyclotron](image)

**Advanced Clinical Division**

The division establishes bases of medical treatment complete with state-of-the-art medical facilities and competent organization to protect people’s health on a medium- and long-term basis.

A nine-bed ward for internal radiotherapy (RI therapy) is provided on the 4th floor of the building of the Medical Center for Fukushima “Life and Future”. This facility allows a level of 3.7–37 GBq internal radiotherapy. Should people be exposed to radiation due to nuclear power-related accidents, the patients will be treated at the RI ward.

− A recommendation at the March 31, 2014, meeting of the Science Council of Japan states that bases of internal radiotherapy, capable of radiation emergency medicine, be established.

Medical Center for Fukushima ‘Life & Future’ Building (Mirai Bldg)

Supporting the revitalization of Fukushima through the promotion of health
As an unsung hero behind endeavors for the enhancement of healthcare quality, we’d like to uncover businesses’ needs.

Shinya Watanabe, M.D., Director of Medical-Industrial Translational Research Center

The predecessor of our center’s activities is a project initiated in 1999 by the Ministry of Economy, Trade and Industry. Inheriting the analysis method of the project, our center comprises six divisions in support of pharmaceutical and related development, and three project support teams. Their foremost objective is to create new industries and employment opportunities by bridging medical and industrial circles and promoting collaboration between them.

Currently, we aim to establish our center as an industry by providing (for a fee) businesses with our original data and research results or using our proprietary technologies and know-how to accept research projects outsourced from businesses. For this purpose, it is important for us to be able to create offerings that are attractive enough for potential customers. No matter how superb our offerings may be, it is meaningless if we fail to provide them to those who really need them. If we succeed in establishing our intellectual properties as a brand by flexibly answering needs from businesses, it will become a great power for us. We have the ability to supply the highest possible materials needed for drug discovery.

In the years ahead, we would like to establish a setup that allows businesses to make good use of our products and services, which will lead to the enhancement of medical care quality.

TR Center aims to create new industries and employment in Fukushima by establishing the Fukushima brand in the process of supporting pharmaceutical-related industries. ⇒ For the revitalization of Fukushima

TR Center’s Guiding Principles

TR Center was established to promote the “Support Base Promotional Project for Pharmaceutical-Related Industries in Fukushima” which is one of the projects initiated by Fukushima Medical University for the recovery of Fukushima. By bridging medical and industrial circles, the TR Center will provide multi-faceted support for the development of new remedies, diagnostic and test agents for cancer and other diseases. Through these efforts, we hope to contribute to creating new industries, attracting businesses and creating employment opportunities in Fukushima Prefecture, in addition to improving health preservation and the quality of cancer treatment and diagnosis for Fukushima Prefecture residents.
We would like to contribute to extending health life expectancy and reducing health disparities.

Hiromasa Ohira, M.D., Director of the Health Promotion Center

Our center is expected to serve as a think-tank, playing the roles for preventive medicine and health promotion in line with Fukushima Prefecture’s motto “Let’s make the people and communities of Fukushima come alive with smiles” as advocated in its “Health Fukushima 21 (the second term)”. Specifically, our activities are as follows. First, we scientifically analyze and evaluate the data of medical expense, health-checkup, and long-term care, and facilitate registration of cardiovascular disease events in order to prevent lifestyle related diseases. Second, based on analysis results and evaluation and analysis, we plan effective health promotion activities and support related projects carried out by municipalities. Third, we support human resources development programs. We implement workshops to benefit those who are on the front-line of health promotion such as public health nurses. At the same time, we work closely with the prefecture to retain public health and social medicine physicians and support to build their professional capacity. Through all these activities, we would like to prevent life threatening diseases and extend healthy life-expectancy for residents.

Fukushima Prefecture Social Health and Welfare Department

1. Evidence-based analysis and evaluation
2. Support of effective health promotion and disease prevention measures
3. Support of human resources development

Fukushima Medical University

The Health Promotion Center

Think-tank roles for disease prevention and health promotion

Municipalities and related organizations in Fukushima

Collaboration

Commission

Analyses results and evaluation
Propose measures of health promotion

Departments
Hospital
Radiation Medical Science Center

Fukushima Prefecture Social Health and Welfare Department

The second term of Fukushima Pref. Health Promotion Movement in the twenty first century (Health Fukushima 21 (the second term))
Fukushima Health and Longevity Promotion Project

Thyroid and Endocrine Center

Serving as the contact point for the three clinical departments, we would like to provide patients with optimal medical treatment.

Susumu Yokoya, M.D., Director of Thyroid and Endocrine Center

At our hospital up until recently, diagnosis and treatment of endocrine diseases have been handled separately by internal medicine, surgery and urology. Now, however, our center serves as a one-stop contact point representing the three departments. This interdisciplinary system enables us to provide patients with comprehensive medical care. With professionals gathering from various departments, the most suitable treatment for an individual patient can be proposed. We can also accept patients who have undergone a prefecture-sponsored thyroid ultrasound examination and have been judged as being in need of treatment. Having access to the latest equipment installed in the Advanced Clinical Research Center, our staff can offer the exact treatment needed.
Advanced Clinical Division

Our division offers advanced medical care as a medical stronghold protecting the health of the people of Fukushima.

Our division works for early detection and cure of diseases taking advantage of our most advanced medical technologies and facilities. Our organization rests on three pillars that enable us to offer state-of-the-art medical care, as follows:

1. The creation of an environment for protecting mothers and children – one in which mothers can give birth to and raise children free of worry.
   - Development of Maternal and Perinatal Center
   - Establishment of Children’s Medical Center
   - Setting up of Pediatric Intensive Care Unit (PICU)

2. Establishment of emergency and critical care center that can effectively deal with nuclear accidents and other disasters.
   In addition to the strengthening of functions as a key disaster medical care center, we intend to establish a core facility to be known as a Disaster Medicine/Emergency and Critical Care Center which will also be armed with advanced radiation medical support functions to deal with radiation accidents and disasters.

3. The development of RI therapy and medical environments.
   - One of Japan's largest bases for internal radiotherapy (RI therapy)
   - Enhancement of the Hematology Ward, Clinical Cancer Center, Ambulatory Chemotherapy Center and Radiology Department
   - Setting up of a ward for female patients

By fulfilling new missions (addressing damage by natural and nuclear disasters) and becoming a trusted base of medical care, education and research, we aim to realize a society that the people of Fukushima will find more livable and free of worry.

Education and Human Resource Development Division

We are fostering human resources dedicated to supporting the lifelong health of the people in Fukushima.

In order to sustain our activities over a long period of time, this division is fostering competent human resources to continue the work of our center, and next-generation medical professionals who can contribute to community-level medical care as well as those for natural disasters and emergency radiation exposure.

New departments in clinical medicine
- Radiation Health Management (Opened on Oct. 1, 2011)
- Thyroid Endocrinology (Opened on Mar. 1, 2013)
- Disaster Psychiatry (Opened on Oct. 1, 2013)
- Radiation Oncology (Opened on Aug. 1, 2014)
- Medical Oncology (Opened on Sep. 1, 2014)
- Radiation Disaster Medicine (Opened on Oct. 1, 2014)

New departments in social medicine
- Epidemiology (Opened on Aug. 1, 2013)
- Health Risk Communication (Opened on Jan. 1, 2015)

New departments in basic medical science
- Radiation Life Sciences (Opened on Nov. 1, 2011)
- Radiation Physics and Chemistry (Opened on Aug. 1, 2013)

Medical support for Futaba area

The Futaba General Medical Assistance Center was established at the Fukushima Medical University in April 2016 (Heisei 28).

This Center protects the health of residents returning to the Futaba area as well as nuclear plant employees and workers engaged in restoration projects. It supports the rehabilitation of the Futaba area by reducing concerns regarding medical treatment and promoting the return of former residents to the area.

- Support to the Futaba Medical Center
- Medical assistance for residents and others in the Futaba area
- Support for the operation of a multi-purpose medical helicopter
Fukushima Global Medical Science Center Floor Arrangement

Disaster Medicine/Medical Industry Bldg. ★8-story/1 basement structure

- Advanced Clinical Research Center
- Medical-Industrial Translational Research Center (TR Center)
- Education & Human Resource Development Division

Environmental Dynamic Analysis Center Bldg. ★2-story structure

- Advanced Clinical Research Center

Medical Center for Fukushima “Life & Future” Bldg. (Mirai Bldg.) ★7-story/1 basement structure

- Advanced Clinical Division (No. of beds: approx. 250)
- Radiation Medical Science Center for the Fukushima Health Management Survey

ACCESS

By Car: Approx. 13 min. after exiting the Tohoku Expressway at Fukushima-nishi I.C., or approx. 8 min. from the Fukushima-Matsukawa Smart I.C. (ETC-equipped vehicle only)

By Bus: Get on a bus at No. 5 or No. 6 stands in front of the JR Fukushima Sta. (East Exit), and get off at the “Idai-byoin” or “Ikadaigaku-mae” stop. Approx. 36 min. required.

Fukushima Global Medical Science Center
1 Hikarigaoka, Fukushima City, Fukushima 960-1295, JAPAN
http://www.fmu.ac.jp/fgmsc

Contact: Fukushima Medical University
Reconstruction Promotion Division
Phone +81-24-547-1674 Fax +81-24-547-1666