The Future of Advanced Medical Development at Nagoya University Hospital Efforts of the "Center for Advanced Medicine and Clinical Research," One of the Creative Centers for Novel Medical Technology

The key word is "bridge-building"-For the future of medical care in Japan

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From basic to clinical, to industrial products – The Center for Advanced Medicine and Clinical Research

Japan's basic technology in drug discovery and medical device creation is world class, but we lack the coordinating power to skillfully channel basic technology into final products, and for this reason Japan's health care industry lags behind other medically developed countries. In order to break through this situation, Japan's national government has deployed the "Translational Research Network Program"*1 under the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the "Clinical Trials Core Hospital Development Projects"*2 under the Ministry of Health, Labour and Welfare (MHLW). The "Innovation of Creative Center for Novel Medical Technology,"*3 a collaboration between these two ministries, was also initiated to implement the programs in an integrated manner.

But even before Japan's national government instituted these programs, Nagoya University Hospital's Center for Advanced Medicine and Clinical Research (later adopted as one of the government's "Creative Centers") was already taking measures that were consistent with the policies of both the MEXT and the MHLW programs. The Center for Advanced Medicine and Clinical Research is a support organization that unifies the phases of research into an integrated process leading all the way from the discovery of seeds to the establishment of new forms of treatment in actual medical practice. In doing so, it bridges the Department of Advanced Medical Support, which is responsible for phases from basic research to "first in human," where pharmaceuticals are first administered to people. and the Department of Clinical Research Support, which is responsible for the subsequent clinical research and clinical trials. Clinical trials are now being conducted constantly, and they are beginning to bear fruit steadily.

At the same time, the development of pharmaceuticals and medical devices requires not only physicians but also professionals in various other fields. This Center already possesses exceptional human resources, but in order to strengthen its organization further, we would like to devote even more energies to nurturing human resources.

Chubu Regional Consortium for Advanced Medicine, accelerating the practical application of medicine

The Center for Advanced Medicine and Clinical Research also supports the activities of the "Chubu Regional Consortium for Advanced Medicine" to promote advanced medical development on the part of the entire region. The Chubu Regional Consortium is an organization that links 12 Chubu Region universities and medical facilities around the hub of our own university in an effort to rapidly develop new medical technologies and medical devices, and it is active in conducting multicenter clinical studies and other investigations. By utilizing the scale of the consortium, we can facilitate the smooth progress of clinical trials, which will further the development of medicine in the Chubu Region and contribute to global medical care.

Striving to solve problems by drawing close to "people"

Advanced medical development is conducted with an eye to the future, in an effort to build human health and happiness. An example of the problems it tackles is the rise of the super-aged society in Japan. Hints to new medical science that could solve this problem will most likely be found at the scene of actual medical practice, not in research laboratories.

I myself am proactive about going to the front lines of medicine to lend an ear to various people and collect information. The seeds found in grassroots activities eventually grow into major efforts that will lead to the cultivation of new medical treatments. That is why my approach to problem solving is to adopt a broad view and broad strategies in a spirit of challenge. Today, once again, I will search for solutions to medical issues while drawing close to "people" as I walk through actual treatment facilities.

*1 MEXT Translational Research Network Program

A program that aims to strengthen seed development capacity and establish permanent bases while creating a network of translational research support bases to connect promising fruits of basic research to clinical applications. Nagoya University was adopted into the program in 2012.

*2 MHLW Clinical Trials Core Hospital Development Projects

A project that promotes clinical research at the global level and investigator-led clinical trials on intractable diseases, etc. as a core hospital in a network endeavoring to produce novel Japan-born pharmaceuticals and medical devices. Nagoya University was adopted into the project in 2012.

*3 MEXT / MHLW Innovation of Creative Center for Novel Medical Technology

Brings together the aforementioned MEXT and MHLW measures under a single umbrella to construct a system for giving practical application to the epoch-making basic research that emerges from academia, while improving the system for implementing and supporting high-quality clinical research and clinical trials at the global level. Nagoya University is one of 15 Creative Centers throughout Japan.

Organization Outline

Established in 2010. This organization provides support for all processes from the discovery of seeds to the establishment of medical treatments covered by health insurance. The Department of Advanced Medical Support and Department of Clinical Research Support work together to discover and develop exceptional seeds at the same time that they bring to the world the fruits of high-quality clinical research conducted in Nagoya and the Chubu Region.



Chubu Regional Consortium for Advanced Medicine



12 participating organizations

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Major achievements in FY2014

- Establishment of the Joint Ethics Review Committee
- Development of a multi-center mutual monitoring system (multi-center SOP)
- Real-time distribution of clinical research seminars to the participating institutions → Establishment of a system of mandatory clinical study certification
- Operation of a seeds-needs matching system and business negotiation with the Promotion Council for Medical Device Industry (Nagoya Chamber of Commerce & Industry)
- \bullet Seeds information collection and management system \rightarrow Initiation of a disease registry
- Establishment of the Multi-Center Intellectual Property Liaison Council → Sharing of intellectual property information and standardization of evaluation criteria
- Wg of clinical study experts centered around biostatisticians → Resistation, assignment, EDC: SOP / manual: seminar / JJT

PROFILE

MIZUNO, Masaaki

Born in 1959. Completed doctoral course in Nagoya University Graduate School of Medicine. Doctor of Medicine. Clinical Professor at Nagoya University Hospital and Assistant Director of the Center for Advanced Medicine and Clinical Research. Nagoya University Presidential Assistant (for Industry-Academia-Government Collaboration). His fields of specialization are molecular biology and neurosurgery.

