

## Hitachi Group in the Field of Medicine



Minoru Sakairi, Ph. D.

*General Manager*

*Healthcare Business Development Center*

*Research & Development Group*

*Hitachi, Ltd.*

THE population of Japan currently enjoys the highest life expectancy in the world, and that life expectancy is expected to become even higher in the future. According to a report of the Ministry of Health, Labour and Welfare, Japan's senior citizens (65 years old or older) will make up 20% of the general population by 2010. That proportion is expected to exceed 30% by 2035, indicating that our population is aging at a very rapid pace. Structurally, cancer, heart disease, cerebrovascular disease, diabetes and other diseases related to lifestyle are on the rise. Approaching this high-life-expectancy society will mean more than simply striving for a disease-free life; it will also be increasingly important to extend the period of healthy, autonomous life, a period we call the "Healthy Life Expectancy." In particular, it is important to minimize the burden placed on the patient's body by medical treatment, in the same way that disease prevention, early discovery, and early treatment minimize the burden. For that reason, minimally-invasive therapy is desirable to avoid reducing the patient's quality of life. Another issue that will face us is providing medical treatment that suits the lifestyle and meets the needs of each individual patient.

On the other hand, demands concerning the cost of

treatment are becoming more severe year by year. In addition to improvement of treatment quality and measures for safety in therapy, hospitals, clinics and other such medical organizations must also grapple with the need to increase task efficiency. That is to say, it is necessary to collect data on all work done in the hospital, as well as clinical data on patients, and to analyze that data for ways to increase efficiency is one of the current task of medical organizations.

Towards solving those problems, Hitachi Group is redoubling R&D efforts in medical therapy, IT and various biological fields to provide solutions. We believe we are contributing to society by providing equipment, systems and services for the support of medical treatment, a part of the social infrastructure.

In this special issue, we introduce technology that Hitachi has been engaging recently. We begin with a highly advanced medical treatment system that features a minimally-invasive treatment system and advanced diagnostic devices that are gentle on patients, and go on to present the results of R&D on hospital support systems that make good use of IT, medical examination support systems for medical organizations, and other such work that is still in progress.