# Ehime University Graduate School of Medicine and Ehime University Hospital

-Activities of the Ehime University Medical Association -

JMAJ 55(4): 342-344, 2012

Takafumi OKURA,\*1 Jitsuo HIGAKI\*2

#### Overview of Ehime University School of Medicine

In the 1970s when Japan was in the midst of high economic growth, regional disparities in health care services surfaced as a national problem. In order to redress this issue, medical schools were established in prefectures throughout Japan under the government policy that every prefecture should have at least one medical schools. In Ehime Prefecture, the Ehime University School of Medicine (EUSM) was established in 1973, followed by the Ehime University Hospital in 1976. The Ehime University Graduate School of Medicine subsequently opened in 1979.

The EUSM is located in Toon City about 15 km west of Matsuyama, the prefectural capital. Rice fields mostly surrounded the area when founded, but houses being built one after another have made the scenery look more urban. Even so, the EUSM area still remains inconvenient in terms of accessibility. There are public transportation available such as buses and street cars, but cars were generally used to commute to the schools and the hospital. As a result, although the EUSM has large parking areas compared to others, the spaces sometimes run short because employees and patients are recently increasing in number. The parking lots, which were once free of charge, have been changed to a charge system a few years ago.

## Ehime University School of Medicine and Community Health Care

The EUSM graduated its 34th class this year, producing about 3,400 physicians in total. However, the percentage of the graduates who work in Ehime after graduation is 30 to 40% overall, and many graduates return to their hometowns or move to urban areas to work. This resulted in shortage of physicians in current Ehime, increasing the work load of the physicians working in the prefecture. The EUSM was established to address the problem of regional disparities in health care, but after 40 years of establishment the problem still remains. The disparities were once successfully reduced at one point, however, recently it is rather increasing. This is a major problem not only in Ehime but also in many universities and cities in non-metropolitan areas. All non-urban areas throughout Japan are suffering from the shortage of physicians.

To address this problem, the national and local governments established community health care revitalization plans and provided funds to medical institutions to secure a necessary number of physicians and emergency medical services in local areas. With the help of these funds, the EUSM established the Department of Community and Emergency Medicine and the Department of Regeneration of Community Medicine to support health care systems in the southern and western regions of Ehime Prefecture. However, this has not contributed to a fundamental solution to the physician shortage.

\*1 Associate Professor, Department of Integrated Medicine and Informatics, Ehime University Graduate School of Medicine, Ehime, Japan (okura@m.ehime-u.ac.jp).

<sup>\*2</sup> Director of Ehime University Hospital, Ehime, Japan (jhigaki@m.ehime-u.ac.jp).

#### Post-graduate Clinical Training

In Japan, those who graduated from a six-year medical school program and passed the national exam for medical practitioners must first go through a two-year clinical training. Believing that more inpatient cases and surgical experiences will expedite the acquiring of medical skills, many of them prefer to receive training at large hospitals in major cities that are likely to provide abundant medical cases. On the other hand, training at university hospitals is unpopular among residents because university hospitals, which aim to enhance diagnostic and treatment skills of their physicians through careful and comprehensive care for each patient, consequently provide smaller number of cases per resident. These factors are causing the shortage of residents at local university hospitals, including that of Ehime. To cope with this problem, the Ehime University Hospital offers many attractive residency programs to invite more graduates of the EUSM and other medical schools. For example, the Ehime Institute for Minimally Invasive Surgical Training was set up to provide experiences equivalent to actual cases, and is equipped with many simulators enabling residents to acquire medical techniques such as cardiopulmonary resuscitation and cardiac catheter tests and treatments. In recent years, 40 to 50 residents have been accepted to this training program, and the number is expected to further increase.

## Philosophy of the Ehime University School of Medicine

The EUSM's basic philosophy since its foundation is "Education, research and health care, in which physicians learn from patients and contribute back to the patients." The Ehime University Hospital's current missions are to: (1) use advanced medical technology to help people suffering from illness; (2) provide safe and high quality medical care that the patients would satisfy; (3) nurture qualified medical professionals through medical education and post-graduate training; (4) support community health care and be open to the world as well; and (5) secure the lives of local residents with effective and potent health care activities in the event of disasters.

To achieve these missions, the Ehime University Hospital established various facilities to pro-

mote advanced medical technology and improve the skills of its medical staff, namely, the Ehime Institute for Minimally Invasive Surgical Training, Maternity and Perinatal Care Unit, Endoscopy Center, Clinical Therapeutic Trial Center, Stroke and Cardiovascular Disease Center, Center for Minimally Invasive Surgery and Cancer Treatment, Hematopoietic Cell Transplantation Center, Center for Anti-aging and Preventive Medicine, Regenerative Medicine Research Center, Cancer Center, Palliative Care Center, Spinal Center, Center of Chest Medicine and Surgery, and Pediatric Care Center. To promote medical education, the Faculty of Nursing and Health Sciences was established in 1994, followed by the Postgraduate Clinical Training Center in 2004 and the Medical Education Center in 2005.

As a result of these efforts, the numbers of outpatients and inpatients have been increasing every year. The hospital revenue has also increased by approximately 130% compared to five years ago. The average number of outpatients per day in the previous fiscal year was about 12,000, which is quite high considering poor accessibility. The hospital is equipped with 600 beds and has about 10,000 inpatients per year.

#### **Medical Research**

Currently 122 Ehime University Graduate School of Medicine students are seeing patients at the university hospital as its residents while conducting clinical or basic research. Quality of graduate education has greatly improved these years. In 2006, the Regenerative Medicine Research Center was established to promote advanced and innovative basic research in regenerative medicine and to contribute the achievement of medical research back to the community. The Regenerative Medicine Research Center significantly expanded and later became the Ehime Proteo-Medicine Research Center in 2009. Focused on the research that incorporates genome and protein information, the Proteo-Medicine Research Center was established to overcome incurable diseases such as malignant neoplasm, emerging and reemerging infectious diseases, autoimmune diseases, lifestyle-related diseases and neurodegenerative diseases, by effectively and innovatively combining basic research and clinical studies. This Center has already reported many research results. The Translational Research Center was also established to serve as a bridge to smoothly link the results of basic studies to clinical applications.

### Ehime University Medical Association's Efforts

The Ehime University Medical Association (EUMA) was established 35 years ago, in April 1977. Currently, the EUMA has 228 members, and Professor Jitsuo Higaki, director of the Ehime University Hospital, is serving as the president since 2012. The EUMA's basic purpose is to provide physicians with continuing medical education, and the Ehime Prefectural Medical Association also regularly offers lectures and study group meetings for this purpose. The publication and management of the Ehime Medical Journal issued twice a year is the EUMA's main activity, in which research achievements of the researches at the EUSM and the valuable cases observed at the Ehime University Hospital have been reported. The invitations to lectures and study groups held by the Ehime Prefectural Medical Association and Matsuyama City Medical Association are e-mailed to the EUMA members as needed, providing the up-to-date health care information. We hope the EUMA to become more active so that the continuing medical education for all members will be enriched and the number of new members (meaning new residents) will further increase.