accordingly, hence disclose susceptible patients to doctors, and early treatment could be made possible.

Associate Prof. Lim said that the device could be modified for studying level of bacterial activity, severity of disease as well as the disease’s progress. The team is also targeting at stroke, a condition that has been ranked as the third most common killer of Singaporeans after cancer and heart diseases, and a major cause of disabilities, with an estimated 9000 case per year.

### Alternative Medicine

#### Xiamen TCM Company Launches New Product

Xiamen Traditional Chinese Medicine Co. Ltd. has recently announced the development of a new product, Xin Huang Pian, a traditional medicine that can relieve pain and inflammations.

“The product is used for the treatment of inflammations involving rheumatoid arthritis, acute jaundice hepatitis, cholecystitis, injury and unknown pyogenic infections,” said Mr. Qiang Shifa, general manager of the company. “It can also clear inflammation and relieve the pain of tumors or inflammations of the esophagus and cardia, relieving the symptoms of pharyngeal obstruction.”

Xin Huang Pian is produced from natural ingredients including Calaulus Bovis, Pulvis Felliis Suis, Pearl Shell Powder, Urena Lobata, Sarcandra Glaber, Radix Pseudoginseng and Amylum.

Founded in 1965, Xiamen Traditional Chinese Medicine Co. Ltd., a Good Manufacturing Practice (GMP) certified company approved by China’s State Drug Administration (SDA), is engaged in the research and development of new types of patented traditional Chinese medicines and healthcare products.

It produces more than 40 kinds of traditional Chinese medicine and healthcare products. The company also sells and promotes its products to Europe, Japan, Southeast Asia, and the US.

### Education

#### Japan

New Biotech University to Boost Japanese Biosciences

A new university that specializes in bioscience and biotechnology will open in April 2003 in Nagahama, Shiga Prefecture, as part of the Japanese government’s efforts to further develop its bio-related industry.

Named the Nagahama Institute of Bioscience and Technology, the tertiary institute will not only train people in advanced biotech knowledge and skills, but also help generate new bio-related businesses.

The Shiga Prefectural Government and the Nagahama Municipal Government, both of which had been seeking ways to revive the local economy, gave their full support to the setting up of the university. The university will be located on a four hectare plot within the 12.5 hectare Bioscience Park, which was developed by the city of Nagahama.

In bioscience and biotechnology, Japan is far behind other industrialized nations in terms of having people with expertise who are also able to apply it to business. The new university will provide education and training with emphasis on research that can be applied in the real business world.

Mr. Tamotsu Yoshida, chairman of the board of trustees of a foundation preparing to set up the school, said, “In the rapidly evolving field of bioscience and biotechnology, Japan is far behind other industrialized nations in terms of having people with expertise who are also able to apply it to business. I hope the new university will help improve the situation.”

Mr. Yoshida said that the university will provide education and training with emphasis on research that can be applied in the real business world. The study of “bio-informatics,” which unites information and bioscience technologies, will also be offered.

The university plans to promote cooperation with overseas universities, including Beijing University and Stanford University.

The success of the school success largely depends on...
whether it can generate new businesses through collaboration with companies. As of now, Takara Bio Inc., which helped create the university, is still the only firm that has announced plans to set up a laboratory in the Bioscience Park.

Demand for places in the university is high, and more than enough applicants are expected to take the upcoming entrance exams for the 200 seats offered.

According to a report compiled in November by the national government’s Biotechnology Strategy Council, Japan’s bio-related market was worth 1.3 trillion yen (US$11 billion) in 2001, compared with 3 trillion yen (US$25 billion) in the US and 2 trillion yen (US$17 billion) in Europe. Meanwhile, the number of Japanese with bachelor’s degrees in biology and pharmacology was less than one-sixth that of Americans holding bachelor’s degrees in biological science.

The council has also noted that the total government budget for bio-related fields stood at 44 million yen (US$350 000) in fiscal 2002, compared with 3.3 trillion yen (US$27.3 billion) the U.S. National Institute of Health will allocate for fiscal 2003.

The council called for doubling the budget in five years, as the bio-industry market is expected to grow to 25 trillion yen (US$208 billion) in 2010 and result in more than 1 million jobs.

Korea

Seoul National University to Set Up Largest Biotech Center in Korea

Seoul National University (SNU) has recently announced plans to establish a US$250.8 million comprehensive biotechnology research center in early 2003. The center is expected to be the largest of its kind in Korea, with over 100 senior researchers and 100 researchers.

The establishment of the center is in line with the nation’s efforts to enhance research productivity as well as to coordinate and increase the exchange of research results in various biotechnology branches, including functional and structural genomics, biomaterials research, bioinformatics and nanobiotechnology.

According to Dr. Lim Chung-bin, the head of the center’s policy board, the center will not only provide the most up-to-date facilities and equipment, it will also provide a conducive environment for the exchange of scientific information of the highest level.

Singapore

New Ph.D. Scholarship to Boost Singapore Economy

In preparation for transforming Singapore’s economy from technology-intensive to knowledge-based, the Agency for Science, Technology and Research (A*STAR) will be introducing a new research orientated Ph.D. scholarship program in conjunction with the National University of Singapore (NUS), commencing from 2003.

Realizing the significance and impact of local talents on the economy on a long-term basis, A*STAR Graduate Academy (AGA) and NUS Graduate School (NGS) have teamed up to launch a new Ph.D. scholarship program termed A*STAR Graduate Scholarship (AGS).

This four-year program has an annual intake of 150 scholars, with an initial intake of 100 for 2003. It will be tenable in Singapore with a two-year overseas post-doctoral fellowship at top academic and research institutes. AGS is open to graduates from local and overseas universities.

The program will place emphasis on physical sciences, biomedical sciences, engineering and other multidisciplinary programs. AGS is also flexible in terms of student’s choice of research projects. Senior NUS faculty staff and principle investigators from A*STAR will supervise AGS scholars in their research work.

Upon completion of the post-doctoral fellowship, returning scholars will be assigned to a three-year “Assured Challenging Employment” (ACE) at A*STAR research institutes, prior to local industrial exposures. This is part of the AGS objectives in preparing highly skilled talents to fit into a fast-paced and dynamic industry.

In 2001, S$16.7 billion (US$9.6 billion) was generated from sales of new products from industries such as electronics, biomedical sciences, chemicals and infocomm. To sustain
this level of growth, a high level of R&D is crucial.

At present, there are 18,577 research scientists and engineers (RSEs) participating in various research projects across private industries, hospitals, universities and public institutes in Singapore, the majority of whom are Bachelor and Master degree holders.

Singapore is a preferred research base in the region for companies such as Eli Lily, Motorola, Sony and Novartis. This has attracted overseas talents, especially Ph.D. holders, to work in Singapore. Their research has resulted in new discovery and new products, boosting the local manufacturing industry.

This translates into more job opportunities and a higher standard of local technology, thereby sustaining the nation’s global competitiveness.

**Study Leave Benefits**

**Queensland Doctors**

Nearly 800 specialist doctors working in public hospitals are entitled to overseas study leave in a deal which cost Queensland taxpayers A$1.5 million (US$0.86 million) in 2001–02.

Under their employment agreement, full-time specialists in public hospitals are entitled to three months study leave for every five years of service.

These specialists undertook 365 trips to North America, Europe, New Zealand and Asia in 2001–02 at an average cost of A$4141 (US$2382), according to Queensland Health’s annual report. The annual report shows about 30 percent of the trips last year were to North America, 29 percent were to Europe and 28 percent were to New Zealand.

Queensland Health Acting Director-general Dr. Steve Buckland said that it was crucial for the doctors to study overseas to update their knowledge and skills.

However, a detailed application leave form has to be submitted for approval by the department. The specialists have to prove that the study is beneficial to their area of specialty. The expense would be limited to A$7000 (US$2300) and fully audited.

When overseas, the specialists will be trained by world leaders in their field and then they bring back those techniques to their hospitals.

Medical Specialists Association of Queensland vice-president Mr. Bruce Burrow said that the study leave program had led to life-saving medical procedures being undertaken in the state.

Dr. Burrow said, “The scheme also helped reward doctors who worked in the public system despite the fact they could be earning more money in private practice. We understand it is public money but Australia is only a relatively small nation so we need to get overseas and see what the rest of the world is doing.”

Under the study leave scheme, the specialists can apply for a trip which involves a conference, seminar, training course or work experience.

**Breast Cancer and Family History Link to be Investigated**

The Australian Federal Government will allocate A$4 million (US$2.3 million) to help medical researchers investigate the link between breast cancer and family history.

The researchers hope to recruit 700 families with a strong history of breast and ovarian cancer for the study and will collect blood specimens and other information from the women.

Family history is believed to be a risk factor for breast cancer, the leading cancer killer of Australian women. The figure from Australian Institute of Health and Welfare showed that Australian women died from breast cancer in 1999.