

The final diagnosis

Medical product pioneer takes honours for breakthrough DNA testing kit

■ GRAND AWARD GENETEL PHARMACEUTICALS

GENETEL Pharmaceuticals has been voted as the grand award winner of the technological achievement category for its commitment to pioneering new technologies in medical science.

Established in 2000 with seed money from the City University of Hong Kong, Genetel focuses on the commercialisation of DNA technologies and seeks to produce innovative diagnostic kits and therapeutic drugs for early diagnosis, prevention and treatment of common diseases.

Michael Yang Meng-su, co-founder and executive director of Genetel, said: "We are very pleased to be the first Hong Kong incubated biotechnology company to win a grand award in the Hong Kong Awards for Industries. This is a significant recognition of our technological achievements."

Strong research and development capability with the support of the university was the key strength that had bolstered the business advance of Genetel over the years, he said.

"We are beginning to reap returns from what we have sown. Our products are of great value and we are aiming at the global market. With the ageing population worldwide, demand for medical care will grow continuously. We will continue to build our business on a solid foundation with the focus on advanced technology," Professor Yang said.

One of its major breakthroughs is the application of DNA chips in the company's SNIPER technology, which has proven to be an effective diagnostic tool for the early detection and treatment of cervical cancer.

Professor Yang, who is also a professor of the university's Department of Biology and Chemistry and a director of Applied Research Centre for Genomics Technology, said cervical cancer was the second most common cancer among women after breast cancer.

Early detection of cervical cancer was vital because, if treated in the primary stages, a full recovery was possible, he said.

According to Professor Yang, cervical cancer is caused by human papillomavirus (HPV) infection that can



Genetel founder Michael Yang says the kit can save lives worldwide. Photo: Felix Wong

CERTIFICATE OF MERIT

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- Hong Kong RFID
- iCON Business Systems
- Perception Digital
- Skyworth TV Holdings
- TeleEye Holdings

be screened and detected at an early stage by using DNA diagnostic technology and biochips.

"The HPV virus has many subtypes. Current data suggests 13 HPV subtypes can lead to malignant tumours," he said.

"Women can easily catch the viruses. The DNA diagnostic technology we developed can be applied for an early screening and then the biochips are used to do genotyping to find out whether the HPV virus within the body is high risk for cervical cancer."

The product was clinically tested with more than 1,700 samples in mainland hospitals, which produced encouraging results. The accuracy rate for the DNA screening is up to 99 per cent, much better than the range of 55 to 70 per cent for traditional cell tests.

Given the encouraging results from the initial trials at the mainland hospitals, China's State Food and Drug



its, writes *Kenneth Ko*

Administration granted a fast-track status and accelerated the official approval process for Genetel's SNIPER kit. The product was approved for sale in the mainland last May, the first product in China to use DNA diagnostic technology for screening cervical cancer.

"The number of cases of cervical cancer is growing by 3 to 5 per cent per annum in the mainland. The fatality rate is very high there, 10 times that of the US and other developed countries," Professor Yang said.

"With early detection by our technology we can make precautionary treatment to prevent cervical cancer. The relatively affordable cost of the product will allow more developing countries to use it and thus save more lives."

Genetel is now planning to expand the marketing coverage of the product worldwide, including the European market and Hong Kong.

Professor Yang said the commercialisation of DNA technologies involved substantial commitment in time and effort from research and development to clinical tests, production and sales and marketing.

The company spent two to three years in research and development of the SNIPER technology and another year for clinical tests in mainland hospitals. In the next two years, he said Genetel would release more innovative products, which would enable its business to reach a new level. The company also planned to recruit more talent, particularly those in the finance and sales and marketing sectors, to enhance operations.

The company is developing effective drugs to treat common cancers. A research project in bio-sensor technology that can detect early cancerous elements in the blood is under way in partnership with a multinational company.

Earlier, Genetel received sponsorship from the Shenzhen municipal government to establish a key laboratory and conduct a project on developing anti-cancer drugs.

The Shenzhen Key Laboratory of Biochip Technology for Drug Research will be set up this year to produce new drugs based on the biochip technology. The company aims to develop an anti-cancer drug that overcomes drug resistance with fewer side effects.

城大附屬公司奪香港工商業獎 科技成就大獎

城大附屬公司港龍生物科技有限公司，憑子宮頸癌早期檢測技術，獲頒2006年度香港工商業獎科技成就大獎，是當時唯一獲得此大獎的高等院校附屬機構，亦是首家獲得此大獎的生物科技公司。

發了SNIPER™-HPV子宮頸癌DNA檢測系列產品。該產品能在細胞未發生癌變前，檢測出已感染致癌的「人類乳頭瘤病毒(HPV)」的基因，有助於及早治療子宮頸癌。

由港龍生物科技有限公司執行董事、城大生物及化學系楊夢甦教授領導的研究隊伍，利用生物晶片(biochip)和基因技術研

Media coverage 媒體報導：

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