

## New drug against liver cancer

**L**iver cancer, also known as Hepatocellular Carcinoma or HCC is one of the five most common human cancers in the world and the second leading cause of cancer death in Hong Kong. A joint research team formed among our Department of Applied Biology and Chemical Technology, HKU's Centre for the Study of Liver Disease and a commercial partner, has broken new ground in developing a drug to fight against liver cancer.

The new drug is developed based on the mechanism of arginine depletion which is believed to be effective in inhibiting tumor growth in HCC without affecting the normal cells. Earlier, PolyU researchers have successfully produced a human recombinant arginase that has a prolonged half-life in the circulation to allow therapeutic use. Experimental research was then carried out and pre-clinical studies were conducted on mice and monkeys. Findings showed that the drug was useful in depleting circulating arginine without any observed side effects.

This is the first drug developed in Hong Kong that has come to the stage of clinical trial. A phased trial on the safety and efficacy of the drug will soon be conducted on patients.

Up to date, PolyU has received close to \$8 million of external funding for conducting the research and has entered into a commercial agreement for royalty payment. ❖



*PolyU researchers join hands with HKU and industry to develop a new drug against liver cancer.*



*With significant contribution to fibre science, Dr Fan was presented with the Distinguished Achievement Award 2003 by the US Fibre Society.*

## Nature publishes findings about body attractiveness

**D**r Fan Jintu, Associate Professor of the Institute of Textiles and Clothing, has recently shed light on the scientific study of body attractiveness. His work was published in the authoritative journal *Nature*.

By dividing the body volume in cubic metres with the square of body height, Dr Fan has developed a new indicator, known as Volume-Height Index or VHI, for the measurement of body attractiveness.

In the study, Dr Fan and his research team used lasers to produce 3D scanned images of some 94 male subjects, including 69 Chinese and 25 Caucasians, and measured their VHIs. Volunteers were then asked to rate the attractiveness of the body images on a scale of one to nine, and compared these ratings with other indicators such as waist-to-hip ratio or Body Mass Index (BMI). The study concluded that VHI was best at predicting how attractive a body would be perceived. ❖

# 理大表揚傑出中國學人

**本**校日前舉行典禮，表揚在「二零零四年度傑出中國訪問學人計劃」中膺選的六位內地知名學者。中華人民共和國外交部駐香港特別行政區特派員楊文昌先生亦應邀與理大副校長高贊明教授聯袂主持典禮。

**安芷生院士**是國內著名的第四紀地質學家。他先後獲國家自然科學獎和其他省部級獎，並獲李四光地質科學獎、何梁何利獎及匈牙利 Lajos Loczy 獎章。安院士也是中國科學院西安分院院長、陝西省科學院院長，兼任國際第四紀聯合會副主席及國際地圈生物計劃副主席。

**汪應洛院士**是國內管理科學與工程領域的知名專家和開拓者。其科研成果曾獲國家及省部級科技進步獎和國家及省部級教學成果獎。汪院士也是國際工業工程協會常務理事、美國《電腦及工業工程報》國際編委，《管理工程學報》與《工業工程》編委會主任。

**金國藩院士**是國內光學信息處理的奠基人、著名的光學儀器專家。其科研成果曾獲全國科技大會獎、國家教委科技進步獎及中國工程科技獎等。鑒於金院士在光學儀器方面所作的貢獻，他獲國際光學工程學會和美國光學學會選為院士。

**俞夢孫院士**是航空醫學及生物醫學工程專家、國內航空醫學工程創始人。他四十多年來積極推進生物醫學工程與航空醫學的結合，取得多項重大科研成果。俞院士的事蹟已載入中國軍事醫學史；曾獲全國科學大會獎、國家科技進步獎、國家發明獎及何梁何利獎。

**馬志明院士**是國內著名數學家。他長期致力於狄氏型與馬氏過程對應關係方面的研究，並在費曼積分、薛定鐸方程的概率解等方面取得多項重要研究成果。由於他在數學領域的貢獻，馬志明院士曾獲得 Max-Planck 研究獎、中國科學院自然科學獎、國家自然科學獎、陳省身數學獎、求實傑出青年學者獎、何梁何利基金科學與技術進步獎等。

**陳凱先院士**是國內著名藥物化學家，也是電腦輔助藥物設計研究領域的專家，致力推動國內藥物設計研究的發展。其研究成果曾多次獲獎，如上海市十大科技精



傑出中國訪問學人：(左起) 安芷生院士、汪應洛院士、金國藩院士、楊文昌先生、高贊明教授、俞夢孫院士、馬志明院士、陳凱先院士

英獎、何梁何利科技進步獎和「863」計劃個人突出貢獻獎。他也是中國科學院新藥研究專家委員會主任。

理大傑出中國訪問學人計劃膺選的學者分別由校內不同的學系提名。他們在訪港期間，與理大教職員交流學術研究心得，並主持公開講座及研討會。



傑出學人參觀理大校園設施，與有關學系進行交流。

## *Distinguished Chinese scholars honoured*

Six renowned scholars from the Chinese mainland were honoured by the University at a special presentation ceremony of the "Distinguished Chinese Visiting Scholars Scheme 2004". The ceremony was officiated at by Mr Yang Wenchang, Commissioner of the Ministry of Foreign Affairs of the PRC in the HKSAR, and Prof. Ko Jan-ming, PolyU Vice President. The distinguished scholars, who were nominated by the University's academic departments, presented a series of public lectures and seminars on their areas of expertise during their stay in Hong Kong.

## Research advancement in Ortho-k



Optometry experts have recently completed a two-year study on Orthokeratology (Ortho-k) and found that the technique of reshaping the cornea with the use of specially made contact lenses can effectively reduce and slow down myopic progression among school children.

The study was conducted among 70 young myopic children aged between seven and 12, half of them wearing ordinary spectacles and another half wearing Ortho-k lenses. Headed by Dr Pauline Cho, Associate Professor of PolyU's Centre for Myopia Research, the research team found that after wearing overnight Ortho-k lenses for two years, the average change in eyeball's axial length – a key indicator of myopic progression, was significantly smaller among children wearing Ortho-k lenses than those wearing spectacles.

The research findings have been presented at two major conferences, namely, the 10th International Conference on Myopia held in Cambridge, the UK, and the Global Orthokeratology Symposium in Toronto, Canada. The paper has also been accepted for publication in the authoritative journal *Current Eye Research*. ❖

## World's first shape memory fabric

Headed by Dr Hu Jinlian, Associate Professor of the Institute of Textiles and Clothing, the University research team has recently given birth to the world's first cellulose-made shape memory fabric.

The unique fabric is finished with a special kind of polymer that can readily recover original shapes. This incomparable feature distinguishes the shape memory garments from other wrinkle-free garments by achieving crease retention, flat appearance and bagging recovery when washed in hot water, making the fabrics not only ideal materials for textiles and garment industry, but also applicable in medical devices, toys and facial masks. A number of patents have been registered for this innovation.

PolyU established the Shape Memory Textile Centre with an \$8 million grant from the Government's Innovation and Technology Fund in June 2003. ❖



*Dr Hu Jinlian explains the unique features of the shape memory fabric.*



*Dr Yang Hongxing says studies on the pilot hybrid solar-wind power projects have been done.*

## Spearheading study on renewable energy

The University's environmental experts are expediting the use of solar energy and wind energy in Hong Kong through the establishment of a Renewable Energy Research Group.

Headed by Dr Yang Hongxing, Associate Professor of the Department of Building Services Engineering, the research group has not only pioneered the use of solar photovoltaic power in Hong Kong, but also conducted extensive studies on the feasibility, system design and site measurements of the potential application of wind energy in the territory's outlying areas and in the Greater Pearl River Delta region.

Renewable energy research laboratories have been established in the University and pilot hybrid solar-wind power projects have been carried out for China Mobile's communication stations in Guangdong. The Group has also set up hybrid solar-wind power generation systems near Shanwei and Huizhou to spearhead research in the area. ❖

# Conferences and Seminars



## First DBA Distinguished Alumni Lecture

To mark the launch of the DBA Distinguished Alumni Lecture Series organized by the Graduate School of Business, President and CEO of China Mobile Communications Corporation Dr Wang Jianzhou delivered a seminar on “Development of Telecom Industry in China” on campus in December. With extensive knowledge and 26 years of management experience in the telecommunications industry, Dr Wang completed PolyU’s DBA programme in 2004.

## Seminar on diabetes and heart disease

At the invitation of the School of Nursing, internationally renowned nutrition expert Dr Jeffrey Bland gave a talk on Type 2 diabetes and heart disease. Dr Bland is Senior Investigator of the American Association of Clinical Studies, Publisher of *Focus on Vitality* as well as Director of the Institute of Food and Nutrition in the US. During the seminar, he talked about the link between Type 2 diabetes, heart disease, metabolic disorder, obesity and dietary and lifestyle changes over the past 15 years, and suggested a therapeutic dietary approach to the prevention and treatment of these health problems.

## Symposium on cleaner combustion

The Department of Mechanical Engineering and the Institute of Engineering Thermophysics of the Chinese Academy of Sciences jointly hosted the 7th Asia-Pacific International Symposium on Combustion and Energy Utilization on campus last December. Themed “Cleaner Combustion for a Green Environment”, the Symposium aimed to identify emerging issues and research opportunities in combustion technology and energy utilization, and the corresponding environmental problems. The opening ceremony was officiated at by Dr Sarah Liao, Secretary for the Environment, Transport and Works; Mr Li Xinmin, Deputy Director (Air), State Environmental Protection Department; and Prof. Poon Chung-kwong, PolyU President.



## First gaming seminar in Asia

Hosted by the School of Hotel and Tourism Management, the first Seminar on Gaming Management in Asia Pacific was held with an aim to enhance the professional standard and image of the gaming industry in Asia. Designed for middle to senior level practitioners in the gaming industry, policy makers and tourism planners, the Seminar provided a platform to exchange views on how to capitalize on the rising opportunities driven by the opening up of the Macau market and investment by the Las Vegas operators, as well as different jurisdictions on legalizing casinos.



## Fourth Pan-Pacific Conference on Rehabilitation

Organized by the Department of Rehabilitation Sciences in partnership with Hong Kong Physiotherapy Association and Hong Kong Occupational Therapy Association, the Fourth Pan-Pacific Conference on Rehabilitation was held on campus last September. Themed “Art and Science of Enablement”, the three-day Conference covered a range of topics including “physical fitness and health”, “enabling the elderly”, “enhancement in child development”, “healthy workplace and alternative therapy”. The opening ceremony was officiated at by Dr E.K.Yeoh, the then Secretary for Health, Welfare and Food, and Prof. Philip Yeung, PolyU Vice President (Academic Development).

