Researchers Unlock Mystery of Schizophrenia
科大破解精神分裂症遺傳基因

A team of HKUST researchers led by Associate Professor of Biochemistry Dr Hannah Hong Xue has achieved a major breakthrough by identifying the fifth gene linked to schizophrenia, facilitating the discovery of effective treatments for the disease.

由科大生物化學系副教授薛紅博士為首的研究小組，最近以確認與精神分裂症有關的第五個基因取得重大突破，為尋求有效治療開拓了廣闊的前景。

For details please see page 3 詳情請看第3頁
I am pleased to report that the government has reaffirmed its confidence in the unique role that HKUST plays in Hong Kong’s tertiary education sector.

This message was conveyed in the University Grants Committee (UGC)’s January publication, “Hong Kong Higher Education: To Make a Difference, To Move with the Times”.

In it, the UGC espouses the concept of Hong Kong’s universities nurturing excellence through role differentiation, a vision that HKUST shares.

Specifically, the report identifies and gives unequivocal support for HKUST’s mission to assist in the economic and social development of Hong Kong by nurturing scientific, technological and entrepreneurial talents, who will lead the transformation of traditional industries and fuel the growth of high-value-added industries for the region.

It also confirms the University’s significant position as one of only three responsible for providing research programs to “a significant number of students in selected subject areas”, as well as charging us to maintain our excellence in providing well-rounded undergraduate education.

I can assure you that the University will continually be committed to fulfilling these important roles. Leveraging on its research excellence built up over the past 12 years, HKUST is in a strong position to take on the responsibility of creating and applying knowledge through research, which is crucial to the development of high-value-added industries and the transformation of traditional industries in Hong Kong.

With a significant number of Research Postgraduate (RPG) students being nurtured at HKUST, what we strive to achieve is a critical mass in cutting-edge areas where we excel. This issue of our Newsletter will remind you that HKUST is already setting the pace in terms of the strength and quality of its research. Dr Hannah Xue’s breakthrough discovery of the fifth gene linked to schizophrenia is just one fine example of this.

We also welcome the UGC’s supportive stance regarding deeper voluntary collaboration among institutions, which is clearly stated in the March UGC report “Hong Kong Higher Education: Integration Matters”. The report also points out that a merger between HKUST and The Chinese University of Hong Kong (CUHK) will not be further explored for the present. In fact, collaborations are already taking place between HKUST, CUHK and The University of Hong Kong in the areas of teaching and research, as you will note from our HapMap story. We are now exploring even more effective strategies to develop synergies and resource sharing, to provide even better educational resources and additional value to Hong Kong’s taxpayers.

The higher education landscape is changing, bringing both opportunities and challenges. I am confident the University will continue its rise to new heights, and carry Hong Kong with it.
Researchers Unlock Mystery of Schizophrenia 科大破解精神分裂遺傳基因

"Not many people realize that there are over 15 million sufferers of schizophrenia in China alone, with 60% of them too incapacitated to work, and another 20% needing constant hospitalization," said Dr Hannah Hong Xue, who recently led her team in discovering a new haplotype - a pattern of DNA sequence variations among individuals that may be associated with predispositions to various diseases - in a gene that is strongly linked with schizophrenia.

Their findings, published in the Molecular Psychiatry journal (December, 2003), are of huge international importance. They give hope to anyone affected by the disease and open up new frontiers in developing an effective cure.

New treatments on the horizon

“Our discovery of the gene, one of five to cause schizophrenia so far identified, opens new paths for the effective treatment of the disease,” Dr Xue explained. “So as we start to improve our understanding of schizophrenia, customized and hopefully affordable drugs can be developed for a patient, tailored to their exact medical needs. Some degree of prevention of schizophrenia will also become a possibility.”

With annual care bills for schizophrenics currently running to US$20 billion a year according to US data, and drugs usually being administered on a trial-and-error basis, schizophrenia is a tough and costly disease to manage.

A Chinese first

Dr Xue’s haplotype was discovered in a test group solely made up of Chinese people, marking the first occasion that a gene associated with a complex disease has been identified in the Chinese population before being discovered in any other ethnicity.

New genome blueprint

Now Dr Xue’s upcoming goals include conducting clinical trials of a drug that will apply her latest research findings for the treatment of schizophrenia. She will also continue her involvement in the international HapMap project, building the next generation of the human genome map (more on page 4).

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HapMap: HKUST and Sister Universities Partner in Worldwide Genomics Project

Well before the Government's recent statement regarding deeper collaboration among Hong Kong's universities, HKUST, The Chinese University of Hong Kong (CUHK) and The University of Hong Kong (HKU) were successfully working together on the International HapMap project.

Prof Jeffrey Wong, Adjunct Professor of Biochemistry and Director of the Applied Genomics Laboratory, leads HKUST's HapMap team, working with Prof Madeline Wu and Dr Hannah Xue. He points out that the ongoing project will have enormous implications for personalized medicine in the coming decades, and for the development of biotechnology in Hong Kong.

Whereas the human genome project identified the common DNA thread of our genetic make-up, HapMap aims to discover individual differences with regard to susceptibility to diseases and responses to drug treatments. This will help doctors diagnose health problems faster and more accurately, and facilitate the design of smart drugs tailor made for a patient's own genes.

More than 20 top universities and research institutions from Canada, China, Japan, Nigeria, the UK and US were brought on board by the not-for-profit HapMap consortium. That three of these participants are from Hong Kong, compared to only two from the UK and seven from the US, speaks volumes about the talent and facilities available here.

Supported with HK$35 million in funding from the University Grants Committee and the Innovation and Technology Commission, the Hong Kong team is working on 2% of the total human genome.

"Through cooperation, we will establish Hong Kong as an important center for genomics R&D. Progress achieved in this linchpin area will help us make a fine contribution to biomedicine in the new century, and put Hong Kong firmly on the biotech map," said Prof Wong.

Role Statement Reaffirms UST's High Impact Areas

HKUST has long advocated refining the missions of Hong Kong's higher education institutions and welcomes the University Grants Committee (UGC)’s recent role statement.

Among its important responsibilities, HKUST considers it a priority to produce quality research and a range of postgraduate programs based on “high impact areas” – identified areas in which it can add significant value either academically, socially or economically.

These areas include:

- Nano science and technology 納米科技
- Environmental science and engineering 環境科學及工程
- Internet technology and e-commerce 互聯網技術及電子商貿
- Logistics 物流
- Molecular neuroscience 分子神經科學

The University's focus on these high impact areas has certainly been a key ingredient of its considerable success. For instance, in the field of nano science and technology, the Far Eastern Economic Review commented that the development of the world's smallest carbon nanotubes "[has] allowed HKUST to justly stake a rare claim for Hong Kong to be a scientific leader..."

The project represents an exceptional opportunity for HKUST, HKU and CUHK, working together, to accrue in-depth experience and student training in cutting-edge genomics research.

“Through cooperation, we will establish Hong Kong as an important center for genomics R&D. Progress achieved in this linchpin area will help us make a fine contribution to biomedicine in the new century, and put Hong Kong firmly on the biotech map,” said Prof Wong.

Related Web page 相關網址:
The International HapMap project
www.hapmap.org

Related Web page 相關網址:
UGC’s “Hong Kong Higher Education: To Make a Difference, To Move with the Times”
http://www.ugc.edu.hk
The second round of the TLQPR (第二輪教學與學習質量過程檢討) was conducted between October 2001 and April 2003. The UGC’s TLQPR Panel, which was made up of 11 highly respected educational experts from Hong Kong and overseas, finished the review with a two-day visit to HKUST in early 2003. The final report was based on the Panel’s observations, along with supporting documentation provided by the University.

The developments that the Panel reserved particular praise for included:

• The Teaching Assistant system and associated training and support procedures, which are comprehensive, well-organized, and valued by all involved;

• The establishment of the Senate’s Committee on Teaching and Learning Quality (CTLQ). CTLQ has made many incremental improvements to policies and processes relating to teaching quality through consultations at all levels of the University;

• The establishment of the Center for Enhanced Learning and Teaching (CELT). CELT has made an impact on campus, especially in Web-based pedagogies;

• The development and use of the Personal Response System (PRS) and the associated embedding of student feedback;

• The establishment of Student-Staff Liaison Committees, and responsiveness to student feedback.

Prof Yuk-Shee Chan, Vice-President for Academic Affairs, applauded the teaching and support staff who had dedicated themselves to assuring teaching and learning quality. He said, "The TLQPR report will certainly play an important role in keeping HKUST focused on continuous improvement in the teaching and learning process."

Related Web page 相關網址:
Teaching and Learning Quality at HKUST 科大教學質量 http://publish.ust.hk/vpaaotlq/
CELT’s TA program 科大教學促進中心助教資源網頁 http://celt.ust.hk/ta/

The University will offer two new degree programs in the coming Fall Semester. They are examples of the University's initiatives to address the demands of the commercial and industrial sectors, especially the new skills and resources required in a knowledge-based society.

The Bachelor of Engineering program in Chemical and Bioproduct Engineering (化學及生物產品工程學士課程) is the first of its kind in Hong Kong and Asia. It will enable students to acquire knowledge on the design and processing of chemical and bioproducts—skills highly sought after in the biotechnology, pharmaceutical, food and beverage, and traditional Chinese medicine industries.

The Bachelor of Science program in Quantitative Finance (計量財務學理學士課程) is designed to meet the needs of the banking and finance industry for graduates with the strong technical background that is essential to financial data analysis, investment strategy, financial modeling, financial derivative pricing, and risk management.

Related Web page 相關網址:
Bachelor of Engineering program in Chemical and Bioproduct Engineering 化學及生物產品工程學士課程 http://www.ceng.ust.hk/en/ugpgm/cebo/cebo.htm
Bachelor of Science program in Quantitative Finance 計量財務學理學士課程 http://www.bm.ust.hk/qfin/
The University celebrated its Eleventh Congregation with 2,632 graduates — 1,789 of whom received bachelor’s degrees, 762 master’s degrees, and 81 PhDs — between 5 and 7 November 2003.

Celebrating with HKUST’s Finest

• The Honorable Dr Cha Chi-ming (查濟民博士), distinguished philanthropist and founder of the Qiu Shi Science and Technologies Foundation (Doctor of Social Sciences honoris causa)

• Prof Shiing Shen Chern (陳省身教授), the greatest living Chinese mathematician and Wolf Prize winner (Doctor of Science honoris causa)

• Dr Alfred Y Cho (卓以和博士), inventor of revolutionary semiconductor technology (Doctor of Engineering honoris causa)

• The Honorable Professor Jao Tsung-I (趙元任教授), erudite scholar and world renowned sinologist (Doctor of Letters honoris causa)

• Prof Karl Alexander Müller, Nobel Laureate in Physics and pioneer in superconductivity (Doctor of Science honoris causa)

The Honorary Graduates participated in a variety of academic and cultural activities on campus, giving a boost to the celebratory atmosphere: On 3 November 2003, Prof Shiing Shen Chern shared details about his latest research in his Distinguished Lecture entitled “The non-existence of complex structures on the 6-sphere”. Prior to the lecture, the University Library hosted a ceremony at which President Prof Paul Chu dedicated a book to Prof Chern.

Other activities included Prof Karl Alexander Müller’s Distinguished Lecture on the development of superconductivity delivered on 6 November, and Prof Jao Tsung-I’s dedication of his calligraphy masterpiece to the University on 7 November.

5 Distinguished Persons Awarded Honorary Doctorates
五位傑出人士獲頒榮譽博士

• The Honorable Dr Cha Chi-ming (查濟民博士), distinguished philanthropist and founder of the Qiu Shi Science and Technologies Foundation (Doctor of Social Sciences honoris causa)

• Prof Shiing Shen Chern (陳省身教授), the greatest living Chinese mathematician and Wolf Prize winner (Doctor of Science honoris causa)

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• Prof Karl Alexander Müller, Nobel Laureate in Physics and pioneer in superconductivity (Doctor of Science honoris causa)

The January 2004 edition of the University’s online publication Genesis includes a “Congregation Special” that features video clips, photo albums and citations for the Honorary Graduates. Please visit the Web page at:

Outstanding achievements of other members of the University include:

- Prof Ka Ming Ng (葉永健教授), Head of the Department of Chemical Engineering, has been elected a Fellow of the American Institute of Chemical Engineers (AIChE) - the leading professional body in its field. Of the 12 new Fellows honored in 2003 for their significant contributions to chemical engineering, Prof Ng is the only one from Hong Kong.

- The American Society of Civil Engineers (ASCE) elected Prof Wilson Tang (湯子嶸教授) of the Civil Engineering Department an Honorary Member in recognition of his significant contributions to safety and reliability analysis in civil engineering, with emphasis on application to geotechnical systems. Honorary Membership is ASCE's highest award.

- Associate Professors Raymond K Cheung (張嘉力博士) and Fugee Tsung (湯子嶸教授) from the Department of Industrial Engineering and Engineering Management have won separate awards from IIE Transactions, a flagship journal in industrial engineering, marking the first occasion that the same department from any one university has won this accolade. The awards come for authoring the best papers of 2002-03 in their respective focus areas of Scheduling and Logistics, and Quality and Reliability.

- In January, a team of five HKUST MBA students won The Marshall MBA Global Consulting Challenge 2004 (馬拉松MBA全球諮詢挑戰賽), hosted by the University of Southern California. The team beat competitors from six other top MBA schools, including Yale University and London Business School. The HKUST students received lavish praise from the judges for providing practical, rigorously supported business solutions that also demonstrated out-of-the-box thinking. HKUST's MBA program was ranked 69 in the latest Financial Times MBA rankings—the only business school in Hong Kong to make the top-100 list.
As we enter 2004, good fundraising news abounds all around for HKUST! The fruits of generous giving will certainly carry the University forward in another year of exciting growth and development.

Some recent major donations include:

- **The S H Ho Foundation (何善衡基金會)** — HK$10 million towards the Library Enhancement Fund.
- **Dr William M W Mong (蒙民偉博士)** — HK$10 million from Shun Hing Education and Charity Fund Ltd (順興教育及慈善基金) to set up two endowed chairs in nanotechnology.
- **Dr William K Fung (方偉昌博士)** — HK$10 million from Fung Foundation Ltd (方氏家族基金) to support the setting up of a new research center on marketing and distribution within the School of Business and Management.
- **Mr Kenneth H Fang (方鵬先生)** — HK$4 million from Fang Brothers Knitting Ltd (方氏兄弟織造有限公司) to set up an endowed chair in environmental studies.

**Related Web page** 相關網址：
Roll of Donors 抱贊者名單
http://www.ust.hk/oudpa/fundraising/donors/roll/roll-040115-e.htm

On 25 January, the doors of UG Hall VI were thrown open, providing UST undergraduates with a new home where they can enjoy the latest facilities and cultivate a fresh hall culture.

**Communal environment**

The new hall is located next to UG Halls II and IV and provides 594 extra bed-places, allowing even more undergraduates the chance to experience hall life.

Every effort has been made to create a comfortable living environment to encourage academic study and the community life of students. Enhanced with more facilities for interaction, such as common rooms and meeting rooms, the new hall has been designed to stimulate learning and feel like a home-from-home for residents.

**Unique culture**

According to Prof C K Tang, the warden of the new hall, residents are committed to building a unique culture of their own: “We aim to foster more intellectual sharing through regular meetings among residents in small groups,” he said.

**Honored names**

The two wings of the new hall will be known as the “Jockey Club Tower” and “S H Ho Tower” in honor of these generous donors who have been long-term and staunch supporters of the University. Along with the Government, the Hong Kong Jockey Club Charities Trust was a major contributor to the hall’s construction costs, providing HK$12.5 million, while the S H Ho Foundation recently donated HK$10 million to the University’s Library Enhancement Fund, (the second gift of HK$10 million from the Foundation).

**Fundraising Events Driven by UST Community**

- From 11 March to 30 April, the Library will host the “Ting Pang-Hsin and Chen Chi Joint Calligraphy Painting Charity Exhibition” (與書畫藝術聯展), which will include calligraphy by Prof Pang-Hsin Ting, Dean of the School of Humanities and Social Science (SHSS) and paintings by his wife, celebrated artist Ms Chi Chen. All proceeds will be donated to the University.
- On 23 May at 3:30pm, the Staff Association and the Alumni Association will jointly present the “HK Chamber Orchestra Concert in Support of The HKUST Enterprise Center” (香港室內樂團支持香港科大企業中心重演會) at the Kwai Tsing Theatre. The event aims to raise HK$100,000 for the construction of The HKUST Enterprise Center.

Enquiries: 2358-6425.
Programme details: www.hkchamber.org
Reaching out for Community's Benefit

服务社群無遠弗屆

HKUST’s latest outreach efforts are fostering closer links with the community, as well as academic and industrial partners in Hong Kong and beyond.

University and CK Life Sciences Join Forces to Fight Cancer

HKUST and CK Life Sciences International Holdings Inc announced on 4 December 2003 a HK$6.5 million joint research initiative to study the efficacy of anti-tumor products targeting breast and prostate cancer. The 30-month project will see HKUST experts help identify the genes that best respond to anti-tumor drugs and produce the first-ever pharmacogenetic database of ethnic Chinese.

Related Web page 相關網址:
CK Life Sciences and HKUST Join Forces to Fight Cancer

Language Centre Conducts Teacher Development Courses

HKUST Language Centre has been commissioned by the Education and Manpower Bureau (EMB) to conduct four courses that help prepare in-service language teachers for the implementation of the “English Language Education Curriculum Framework”. The Centre has offered language-training courses for in-service teachers for several years, to help them meet other EMB language proficiency requirements.

Related Web page 相關網址:
HKUST Language Centre  科大語言中心 http://lc.ust.hk/
HKUST and Science Academy Join Forces
On 22 December 2003, the Chinese Academy of Sciences (CAS) and HKUST signed an agreement to boost collaboration in information technology research and postgraduate student training. The agreement was signed by Prof Chunli Bai (白菜林教授) (second from right), Vice-President of CAS, Prof Wen Gao (高文教授) (right), Executive Vice-President of CAS Graduate Institute, Prof Paul C W Chu (朱經武教授) (second from left), President of HKUST, and Prof Yuk-Shee Chan (陳玉樹教授) (left), HKUST Vice-President for Academic Affairs.

Alumni Host Shanghai Ball
The HKUST Alumni Association (AA) held its Annual Ball on 31 January. Entitled "Shanghai Night" (上海之夜), the party also celebrated the inauguration of the AA’s Shanghai Chapter. Over 100 guests were present at the campus-held event, with the Shanghai theme extending to partygoers' dress and food. An auction drew hearty bidding, and raised over HK$70,000 for the University.

Fan-tastic Exhibition
The Center for the Arts presented “The Art of Fan — The Chinese Painting and Calligraphy Exhibition” (segue—中國書畫展) in early January, comprising over 60 fans beautifully painted by a group of alumni from the Chinese University’s School of Continuing Studies. The artists also held a demonstration and took time to explain their work to numerous visitors.

Fundraising Championship for MBA Alumni Trailwalkers
For the third consecutive year, the HKUST MBA Alumni Association (MBAAA) became the Education Fundraising Champion in Oxfam’s annual Trailwalker event held in November 2003. The team of 20 proved to be in best shape not only by completing the 100-kilometer hike along the MacLehose Trail, but also raising more than HK$200,000, which topped all participating teams from the Education sector.
Debaters Do It with Words
Having won the RTHK Hong Kong Joint Tertiary School Putonghua Debating Competition 2003, HKUST’s Mandarin Debating Team represented Hong Kong at the Chinese Major Universities Student Debate Competition (中國名校大學生辯論賽) in Shanghai. The team took second runners-up position, against opposition from six mainland institutions and the University of Macau.

Students Make Tracks
The annual student athletics meet (校慶會) took place in January with nearly 300 competitors turning out at the sports field. The Department of Mechanical Engineering was the overall team winner, while a new University record was set by Sarah Hoi Wah Cheung (MA China Studies) in the women’s 1500 meters. Above, Women’s Champion Ting Ting Lee collects her cup from Senior Physical Education Officer, Mr Kenny Chow.

Senegalese Comes to House IV
Members of Vista House IV Students’ Association (翰越社四) took a crash course in African dance and drumming before Christmas to round off their 10th birthday celebrations. Their Senegalese instructors brought a splash of color and some great rhythms with them - not to mention their leopard print waistcoats - in what was the first African cultural event ever held at HKUST!

Staff Win Caring Logo
The HKUST Staff Association (SA) (科大教職員協會) has been named a Caring Company by the Hong Kong Council of Social Service! Mr Michael Cheng (SA Vice Chairman, pictured left) and Mr Donny Siu (Treasurer, right) received the Caring Company Logo from Permanent Secretary for Economic Development and Labour (Labour), Mr Matthew Kin-chung Cheung (center). The award goes to organizations demonstrating high standards of social responsibility, and the SA is the only education sector representative ever to have won it.
Your Hotlinks to HKUST

Living in the “e-world”, the “e-way” has become the new way to stay in touch. At HKUST, we are no exception!

Here are some of our hottest and latest “e-links” for you to check out:

- **HKUST Homepage**
  All about the University, from up-to-date news and events to campus information
  [http://www.ust.hk](http://www.ust.hk)

- **HKUST Newsletter**
  In-depth coverage and stories about the University’s recent achievements, developments and activities to keep in touch with the public
  [http://www.ust.hk/Newsletter](http://www.ust.hk/Newsletter)

- **Genesis**
  Web newsletter and feature articles for and about the University community
  [http://genesis.ust.hk](http://genesis.ust.hk)

- **Alumni Relations Unit**
  Web page featuring latest news and events about alumni
  [http://www.ust.hk/alumni](http://www.ust.hk/alumni)

- **Faculty Profiles 2003-04**
  Complete profiles and research activities of UST faculty members, with search capacity
  [http://www.ust.hk/faculty_profiles](http://www.ust.hk/faculty_profiles)

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