



# Knowledge Exchange

The University of Hong Kong

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NEWSLETTER

Knowledge Exchange (KE) is one of the three pillars underpinning all HKU activities, alongside Teaching & Learning and Research. In this issue, we would like to share with you the Versitech way of celebrating HKU's Centenary and some success stories that the University presented at the *Knowledge Exchange Conference: Knowledge Transforming Society* held on December 5-6, 2011. Those of you who had attended the KE Conference will notice that we could cover only a few of the success stories under *Features* of this newsletter. We hope to cover other KE success stories in future issues.

Professor Paul K H Tam

Pro-Vice-Chancellor (Research) & Director, Knowledge Exchange Office



## 100 Licenses of HKU Inventions and Know-hows

2012 marks a significant milestone in HKU's knowledge exchange mission: the issuing of the 100th license for our inventions and know-hows. It's pleasing to see that this was reached during the University's Centenary.

Licenses help to develop the commercial potential and impact of our research findings by opening the door for the private sector to develop them into useful products.



Prof. Paul Cheung

Professor Paul Y S Cheung, Director of HKU's Technology Transfer Office and Managing Director of Versitech Limited, explains the process. "University research is for the purpose of discovering and pushing the knowledge frontier. That means there should be freedom to do things that may not have economic implications because it's the knowledge that we value.

"However, especially for scientific, technology and biomedical research, there are bound to be discoveries

that might have potential applications, some for the short term, but some may have enormous impact on our quality of life. Our job is to try to enhance the impact of these research results.

"A lot of the results may not be in usable form and require further development. This is where we need partnership with industry to invest and turn it into something that can be of use."

Since 1998, when HKU formed Versitech Limited, 300 patents have been granted for over 146 different invention disclosures at HKU and 102 of these inventions and know-hows have been licensed. The commercialization rate is close to 40%. This commercialization has been achieved despite the lack of a well-established technology industry in Hong Kong – most of the licenses are with international or Mainland China companies.

Examples of licensed inventions include a new transgenic plant that grows significantly faster than other plants and could be useful as a biofuel, the discovery of a new pathway for attacking the influenza virus, and an osteogenic drug to enhance bone density.

Professor Cheung said patents were important to make inventions attractive to industry partners, who want to protect their investments as they develop them into usable products. This process in turn was important to society as a whole.

"China is in a stage of development that is at a tipping point where its next step depends very much on its ability to innovate and create intellectual property assets as opposed to being the factory of the world. Because of that it's very important for us to enhance our efforts in technology transfer. We need that process of turning our inventions into something useful," he says.

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## Lighting the Way to Discovery

How does an idea get translated from the lab to the community? This is an eternal question in knowledge exchange. Professor C M Che, Dr Hui Wai Haan Chair of Chemistry and one of the top chemists in the world, has learned the answers the hard way.

Professor Che, who has been doing research at HKU since 1983, is a world leading authority to develop innovative phosphorescent metal-organic compounds, paving the way for the development of light-emitting materials and other related applications. However, he did not do much applied studies and even not patent his original work before year 2000, leaving others to profit from it. "At the time I didn't think it was important to my career," he says, as he preferred to focus on his laboratory work.

His views began to change in 1998, though, when he was asked what contribution he had made to society. He thought deeply on the question and realised he needed to do more to convince people of the value of chemistry. The best way to do that was to apply his findings.

An opportunity soon arose when a company approached Professor Che about sponsoring his research and developing his discoveries into useful products. By then he knew that he needed to start patenting his inventions to make them attractive to industries to invest.

He also needed some expertise in devising products that could maximize the potential of his discoveries. A postgraduate student from City University of Hong Kong, who specialised in physics and engineering and perfectly complemented his own strengths, was recruited.


They secured enough funding – most of it from industry – for a \$10-million facility that enabled them to develop novel materials with practical applications in organic light-emitting diodes (OLEDs). OLEDs with unique features including fast response time, ultra-thin panel structure, low-power consumption and wide viewing angle, continue to draw substantial attention in the development of next generation of new display technology. Multinational chemical firms have since shown keen interest in Professor Che's research, although he is careful not to restrict opportunities for Hong Kong and China to benefit from his work.

"Through partnerships with local, international and Mainland display companies, we are working to promote the development of new lighting industry and innovative electronic consumer products in Hong Kong and South China in the coming decade," Professor Che says.



Prof. C M Che at the KE Conference

All of these experiences have led Professor Che, who is also the first Hong Kong recipient of the First Class Prize of China's State Natural Science Award, to conclude there are two important lessons in knowledge exchange. One is to keep learning. "Even though at first I didn't have everything I needed to turn my innovations into useful products, I started to learn," he says.

The second message is to reach out to others. "You need to talk to people, businesses, technology transfer colleagues, and students. I couldn't do this all by myself." 

## The Toxic Tale of Hong Kong's First Patented Drug

One man's poison is another man's cure. At least that's the case for arsenic. Best known as a favourite substance for killing off royalty and victims in murder mystery stories, arsenic has enjoyed a comeback in recent years as a medical treatment, in particular for leukaemia.



Prof. Y L Kwong at the KE Conference

Professor Yok-lam Kwong, Chui Fook Chuen Chair in Molecular Medicine of the Department of Medicine, has been a close follower of its revival and was inspired to produce Hong Kong's first patented drug – an oral form of arsenic.

"Arsenic is a very strange thing," he says. "It used to be considered a type of traditional Chinese medicine and it also has a long history in Western medicine, but it is also a poison and has this bad reputation."

One interesting example is that the use of arsenic was mentioned in the clinical case notes of Sir Arthur Conan Doyle, Scottish physician and author of the Sherlock Holmes stories.

The advent of chemotherapy after the Second World War pushed arsenic out of the medical picture. Its role in medicine did not re-emerge until the 1980s and 1990s when scientists in Mainland China applied modern scientific tests to show arsenic was indeed effective against leukaemia.

With the help of medical records of the 1950s in the Department of Medicine, Queen Mary Hospital, Professor Kwong found out that arsenic originally was used in an oral formulation, unlike the intravenous drug developed by the Mainland doctors. He decided to see if he could develop a new oral formulation that met modern standards. And he did all the basic research without any research grants.


The result is oral arsenic trioxide treatment which has been tested on patients with acute promyelocytic leukaemia (APL) and found to be almost 100 per cent effective in inducing a remission.

The patient outcome is similar to the intravenous drug, but importantly, the treatment is much easier on them. Patients take the oral drug at home, while intravenous patients typically stay in hospital for a month. The psychological stress caused to patients is much lower as a result. Besides, the side effects are much reduced and the cost is much cheaper – intravenous treatment

typically costs about US\$50,000 for a full course. "I'm sure it will become the standard treatment for APL," Professor Kwong says.

Professor Kwong works with Versitech to turn his research result into a product for clinical application. The drug is the first prescription medication to be developed in Hong Kong and it has been patented in the U.S. and Japan. It is now ready to go to market and he hopes it will be made affordable to less developed countries, where intravenous treatment is too expensive.

Moreover, oral arsenic trioxide, when it comes to market, should be affordable for testing in other ailments. Already, HKU has filed patents for its use in treating lymphoma and certain types of arthritis. Hopefully, there will be more to come.

It's been more than 10 years since Professor Kwong started his research in arsenic, and his technology transfer journey continues. It's all about perseverance, for the sake of patients. 



## Track Goods and People on the Move

A shipment of valuable computer components makes its way from Hong Kong to New York. The owners want to track its progress at every step but the location updates are not in real time – the best information is that the shipment left San Francisco three hours earlier. But where, exactly, is it?

Businesses and organisations around the world face this challenge of keeping track of goods and even people. Until now there have been only limited options for ubiquitous tracking: either track it outdoors using GPS (global positioning systems) so long as the item is visible to a satellite, or track it indoors using other technology.

However, a new project under Professor Victor Li, Chair Professor of Information Engineering, promises to meet the demand for pervasive-tracking and instant access to information.

He and his team have devised a small hybrid device that integrates GPS, Wi-Fi, cellular networks, radio frequency identification and ZigBee and can attach to cargo.

“What we have come up with is tracking that is 24 hours a day, seven days a week. It’s a complete solution,” he says.

The device works by using the different tracking methods and communicating with other devices to keep track of items indoors and outdoors in a cost-effective way.

For example, in a container yard, the container at the top of a pile is visible to a satellite so it uses the GPS receiver. Containers at the bottom are blocked from the satellite so they use short-range communications to signal their position from the container at the top.


“This can be pushed further so that another container at the top can turn off its satellite receiver and conserve battery by using the receiver of its neighbour,” Professor Li says.

The largest tracking device is about the size of an iPhone and costs US\$50 to manufacture, while smaller tags for indoor use are about the size of a credit card and cost US\$8.

The device was tested in an ITF-funded pilot project with DHL Ltd to track goods from its logistics hub to customer premises. It was also tested outdoors in Sai Wan and was found to be more accurate than GPS, averaging a 19 metre error against 37 metres for GPS.

Professor Li says they are working with a potential commercial partner to develop the device for wider use in the multi-billion dollar tracking industry. Some possible applications include tracking trucks on the road, vehicles in

a car park, sailors on a ship and even firemen in a burning building, thereby holding promise as a life-saving device.

It’s a classic example of the successful journey from cutting edge laboratory research, to applied research through partnership with industry and support of ITF, and then industrial applications to benefit our society. 



Prof. Victor O.K. Li with the location tracking app on an iPhone



## A Creative Way to Share



Prof. Ying Chan at the KE Conference

The creation of a new work inevitably gives rise to the issue of ownership. And in today’s digital world, where sharing expands the impact of a work, “ownership” can be a complicated matter.

While a creator can use copyright to retain full ownership, or put their work in the public domain so anyone can use it, what happens if they want something in the middle? What if they want to share their work but still get recognised for it?

This dilemma led to the founding of the Creative Commons in the US in 2001 to license such works,

and HKU has played a central role in bringing the initiative to Hong Kong.

The licenses keep creative works accessible by providing creators with protection through one or more specified conditions: attribution, non-commercial use, no derivative works, or ShareAlike, in which those with a similar license exchange material.

The Journalism and Media Studies Centre (JMSC) worked with Associate Professors Yahong Li and Alice Lee at the Law Faculty to develop Hong Kong versions of these licenses in accordance with local laws. Since 2008 more than half a million Hong Kong works have been licensed, everything from photos and videos to music and words.


The JMSC Director, Professor Chan Yuen-Ying, says they are keen to sustain the initiative in the community, particularly in schools.

“We decided early on we wanted to focus our work on Creative Commons and the media [because] at a time when Liberal Studies education is being restored in schools, where are the teaching materials?” she says.

A Creative Archives was set up to encourage organizations to donate open educational resources for teachers and students. Major partners include Radio Television Hong Kong, which has made its own archives available, and the Independent Commission Against Corruption, which has uploaded materials to the website [hk.creativecommons.org](http://hk.creativecommons.org), where a Creative Commons license can also be got.

“As a teacher,” Professor Chan says, “I can feel confident putting this material into a USB drive and reproducing it to share with students. I don’t have to worry about infringing on copyright, which can be complicated and take a lot of time, and also leads to a tendency not to use the material.”

She hopes more government departments and universities will follow suit. The Massachusetts Institute of Technology puts its teaching materials online, and at HKU the Department of Philosophy has a Critical Thinking Web that offers online tutorials and resources used by people around the world.

“The sharing of creative work is good for everybody. We see the Creative Commons as a very powerful tool for knowledge exchange,” Professor Chan adds. 

## Bridging the Gap between Culture and Preservation

Heritage conservation projects are usually meant to keep old and important sites safe from the wrecking ball. But while the physical structures stand, the life and culture of these buildings – embodied in their inhabitants – are often moved out. And when that happens, much is lost.

This outcome, which has been typical in Hong Kong, disturbed Dr Mirana May Szeto, Assistant Professor in the Department of Comparative Literature. So much so that it motivated her to develop an entirely new approach to heritage preservation in Hong Kong, focused on the Blue House Cluster Preservation Project in Wan Chai.

“Heritage preservation advocacy has been happening in Hong Kong for decades and still we have lost a lot of heritage,” she says.

“In every single case in the past, the people were evicted. And then either the government took the site back as heritage and gave it to an NGO as an office, which is good but there’s no public appreciation of the place, or it gave the site to private operators as a restaurant for gentrified use.”

Dr Szeto reckoned there was a better way and she saw an opportunity with the Blue House Cluster. The government’s original plan was to evict all residents (with compensation), convert the Blue and Yellow Houses into museums and demolish the Orange House.



Dr Mirana Szeto (standing back row, 3rd from right) with residents and professional volunteers at the Blue House spatial use participatory planning workshop in September 2009


After “studying the city like a text”, Dr Szeto concluded that the general public was not getting the message that these projects affected Hong Kong’s culture and quality of life – that they were more than the dislocation of a few people and the change of use of a few buildings.

She rallied other scholars, artists, businessmen, lawyers and other professionals to this perspective and they helped to shape an alternative plan that involved working closely with the local community and NGOs. This process of knowledge exchange ensured that everyone understood the technical and regulatory requirements.

“The residents showed us around the place to understand their way of life and what was worth preserving,” she says. “We were able to see the connections between the hawkers and the market and the residents, and see how this community had evolved.”

Dr Szeto’s group called their approach “living heritage preservation” and it helped them to win the bid for the site in 2010. It has also become adopted into the government’s heritage policy.

“What makes us unique and successful is our process innovation,” Dr Szeto explains. Through the mediation of our researchers who are responsible for knowledge sourcing, integration and production, expertise, knowledge and new ideas, available resources were mobilized among the community, government, professional and business stakeholders to do creative things in a participatory, interactive manner.

Residents will stay in place during renovation and when the site re-opens in 2014, there will be a “house of stories” where artists, writers and the community will help to keep alive the culture and life of these residents, and of Hong Kong as a whole. 



Blue House community meeting in the evening at Blue House Livelihood Place

## Prevention is the Cure When It Comes to Suicide

Suicide is a worry in any society, but there is a perennial problem in addressing it: how do you intervene and stop it from happening?

To Professor Paul Yip, Director of the Centre for Suicide Research and Prevention, trying to identify potential suicides is near-impossible. But the risk can be reduced through a public health approach that raises awareness across society as a whole and minimises exposure to different kinds of risk factors.



Two primary school participants (at sides) reflecting to their mother and Prof. Yip what they learned in the problem-solving skills workshop

The Centre has been involved in identifying problem areas and groups, lobbying to restrict access to substances used in suicide attempts such as charcoal, and producing a website, “Little Prince is Depressed”, that explains suicide risks to secondary school students.

More recently, they have taken their efforts to primary schools to address problems of self-esteem, which can become a suicide risk factor as children get older. Prevention measures are urgently needed because every year three to five Hong Kong students commit suicide.

“These children [who commit suicide] don’t have good coping skills,” Professor Yip says. “Everyone, you and me, could learn how to cope better. It doesn’t work if you say, you shouldn’t kill yourself. You need to understand the problems, the low self-esteem, the low problem-solving skills. It’s important to go back to these basics and take a public health approach.”


In March 2011 the Centre started working at a Tin Shui Wai school with Primary 4 students at-risk, such as those from single-parent homes or with learning or behavioural problems. They were paired with HKU students and staff who acted as mentors and kept regular phone contact with the children and took them on outings. The children’s parents and teachers also received training on helping the children to cope.

The project ran for nine months and at the end, 25 students who had met the requirement of the program, good attendance records and showed improved relationships with their parents were rewarded with a trip to Disneyland, together with three family members, extending the whole-family approach. The project with the trip was financed through private

donations. The support from Mr and Mrs Lawrence Fung, Mr and Mrs Stephen Tsang and Disneyland Inc are gratefully acknowledged for their generosity and care for our young people.

The headmaster of the school reported that both behaviour and academic results had improved. He has asked the Centre to continue the programme although Professor Yip said they had limited resources to do this and hope some other NGOs can take up the task.

“Our job is to train the trainer and share expertise and knowledge so the community can carry the torch. We try to find out what methods are effective and we collect data and evidence to back that up,” he says. The Centre becomes a knowledge hub and an incubator for generating evidence-based practice suicide prevention programs.

Hopefully, the results will contribute to a wider goal of promoting mental health in the community and reducing suicide risks. 

Primary school participants (front) showing their artworks at the end of the orientation day with their mentors (back)



## A Mutual Learning Opportunity

Schools need teachers who are both trained and practiced. The catch is that schools have to provide opportunities for student teachers to get that practice. Until recently, this has been an uphill struggle.

When Dr Tammy Kwan was appointed Partnership Director for School-University Partnerships in the Faculty of Education in 2007, they were short nearly 200 school placements for student teachers (out of a total of about 500). “We had to call schools one by one and beg for places,” she says.

That situation motivated her to find a more sustainable solution that involves collaborating with schools so they can realize the benefits to their own staff of having student teachers around.

“We want them to see it as a mutual learning opportunity. The student teachers get authentic experience and practicum, while mentor teachers

in the schools can take it as an opportunity to further strengthen their professional development. This is important if they want to move up the career ladder,” Dr Kwan says.

Teachers who are paired with student teachers act as mentors and open up their classroom to the student teachers so they can observe lessons and discuss the rationale behind their lesson plans and teaching. Previously student teachers were simply given classes to teach and left to get on with it. Mentor teachers also observe student teachers teaching their classes.

“The mentor teachers get another perspective. Some of them say they’d thought this or that approach wasn’t possible, but when they observed our student teachers using more innovative ways of teaching, it opened their eyes,” she says.

That result has led to “whole school mentoring support”, which extends mentoring beyond the individual teacher-student relationship to encourage other non-mentoring teachers to open their classrooms and allow student teachers to observe their lessons. This allows our student teachers to see different teaching approaches in subjects outside their majors.

Lock Tao Secondary School was the pioneer in 2007-08. “The whole school atmosphere has changed,” says Dr Kwan. “Before they joined us, they were very conservative and seldom allowed anyone to walk into their classrooms. Now they say, come on in, anytime, welcome.”



Dr Tammy Kwan (3rd from left) and her colleagues of Partnership Office

The partnership programme has 19 Professional Partnership Schools (PPS) at present which hopefully will increase to 25 in September 2012. Since her appointment as Assistant Dean (School-University Partnerships) in November 2010, Dr Kwan has also formed clusters of PPS to hold professional workshops and seminars related to educational issues such as mentoring. Teachers from nearby schools of the PPS and parent representatives are also invited to join with the intention to expand the boundary of the PPS clusters. What started as a teaching and learning initiative with placements as the primary objective has now got a strong knowledge exchange element by sharing and disseminating knowledge to different stakeholders or parties.

Dr Kwan hopes interest in supporting mentoring will snowball because in 2014 the double cohort of students in Education will start their teaching placements, meaning more places are needed. “We have to really plan ahead,” she says. “Of course we are looking for numbers but we must also ensure quality of mentoring and we strongly believe student teachers, mentor teachers and schools, and our Faculty will benefit through genuine partnerships.”



Group Photo of Dr Tammy Kwan (front row, 3rd from left), her colleagues and school partners at the KE Conference

## Promoting Word of Mouth

Publish or perish. It’s a refrain heard on many campuses in reference to academic reputation but the Dean of Dentistry, Professor Lakshman Samaranayake, says it applies just as much to knowledge exchange.

The Faculty was the first in the University to establish a knowledge exchange unit in 2008 and hired a scientific writer to help get its message across.

“I always tell students that research not published is research not done. The same goes for knowledge exchange. If we do research and don’t publish and publicize, then people don’t know if it is done or not; it just hides in libraries,” he says.

“As intellectuals and academics, we have an obligation to society to not just sit in laboratories and do our work, but to work for the good of the public. We’re all paid by taxpayers’ money and we have to show the public what they get. I’m a passionate believer in this.”

The Faculty gets the word out through a regular newsletter and activities in the community. Community dentistry is also embedded into the dental curriculum as students are required to venture out in their fourth year to introduce basic oral health to under-served groups, such as drug addicts, Indonesian domestic helpers, people with special needs and kindergarten children.

The Faculty is also working with big firms such as Colgate to educate the public about the importance of oral health. A body of research has shown a link between oral

health and other health problems, such as heart disease, diabetes, pancreatic cancer and adverse pregnancy outcomes such as miscarriages and stillbirths.

“Though Hong Kong is considered to be a developed city, there’s a huge need for oral health,” Professor Samaranayake says. “Awareness is low and as a result oral health has low priority in comparison to general health. This is probably true of Asia as a whole. We have an obligation to tell the community about the importance of oral health.”

As the knowledge that is regularly disseminated by the Faculty to the community is underpinned by quality research, knowledge exchange also contributes to the Faculty’s reputation in the field. Not only the dental profession but also other dental faculties around the world become more aware of the Faculty’s work. The Faculty has been asked by more than 15 faculties in other universities to sign a Memorandum of Understanding over the past five years.

Apart from its current activities, the Faculty is looking for new ways to reach people, particularly through social media, and is integrating knowledge exchange more closely into teaching and learning so that all students, staff and alumni are able to help patients and the public incorporate oral health into their everyday lives.



Prof. Lakshman Samaranayake, Dean of Dentistry

## Knowledge Exchange Funding Exercise 2011/12

Recognizing Knowledge Exchange as one of the three missions of higher education, the University Grants Committee (UGC) has committed to provide an annual special allocation for KE to UGC-funded institutions for the 2009-12 and 2012-15 trienniums to enable them to build up their capacity and broaden their endeavour in KE.

With input from the faculty representatives on the KE Working Group, the KE Executive Group awarded most of the UGC's annual special allocation through the KE Funding Exercise. The following three exercises were conducted under the KE Funding Exercise 2011/12:

- Faculty Capacity Building
- Impact Projects
- Student KE Projects

### Faculty Capacity Building

The KE funding for Faculty Capacity Building provides support to Faculties to put in place optimal supporting infrastructure in order to enable systematic and sustainable

changes within the Faculties on how they relate to the community and businesses. For 2011/12, allocations were made with reference to faculty size and each Faculty was allocated HK\$0.4M to HK\$0.5M. Each Faculty is expected to use the KE Capacity Building fund allocation and its own matching resources to build up its Faculty KE unit, create or enhance its KE website, and strengthen its partnerships with relevant stakeholders in society.

### Impact Projects

The KE funding for Impact Projects aims to facilitate projects that can create impact which, ideally, can be recognized and acknowledged by the non-academic sectors concerned, or even the general public. Proposed projects may be technology-based or non-technology-related. The maximum bid for each Impact Project is HK\$100,000. Proposals are considered on a competitive basis, and support may be provided in full or in part.

The following Impact Projects were supported in 2011/12:

Project Co-ordinator (Faculty / Unit)	Project Title
Ms Tris KEE (Architecture)	Feasibility Study of a Kindergarten for Autistic Children
Ms Tris KEE (Architecture)	Interactive Educational Resource Kit for All Secondary Schools in Hong Kong
Ms Melissa CATE CHRIST and Ms Tris KEE (Architecture)	Engaging Community: An Escalator for Pound Street
Dr John LIN and Mr Olivier OTTEVAERE (Architecture)	Life on Stilts – Tai O Public Awareness Exhibition
Mr Jonathan D SOLOMAN (Architecture)	Counterpart Cities: Climate Change and Cooperative Action in Hong Kong and Shenzhen
Mr Weijen WANG (Architecture)	Recycling Ecological Pavilion: Strategy on Building Sustainable Community for Choi Yuan Village in Rural Hong Kong
Dr Yoshiko NAKANO (Arts)	Arts Centenary Community Exhibition
Mr Beau LEFLER (Business & Economics)	Disseminating HKU Research to the Public – Building Bridges for Public Understanding of Scientific Progress
Dr Chun Hung CHU (Dentistry)	Oral health promotion program in young children through an evidence-based primary prevention approach
Professor Edward C M LO/ Dr C J SENEVIRATNE (Dentistry)	Enhancing science knowledge and skill of secondary school students using “dental sciences” examples
Dr Maurice Man Wai CHENG (Education)	Visualizing chemical bonding – bridging the macroscopic phenomena and the submicroscopic representation
Mr Dennis Chun Lok FUNG (Education)	Liberal Studies Forum in AM730 Newspaper
Dr Tammy KWAN (Education)	The formation of “clusters” of Professional Partnership Schools (PPS) and practicum partnership schools (pps) as a powerful platform to enhance mutual knowledge exchange and to strengthen School-University Partnerships
Dr Chad LYKINS (Education)	Developing education research capacity in Cambodia
Dr Lena Lai Nar WONG (Education)	Promoting healthy hearing in the aging community in Hong Kong
Professor Edwin YIU (Education)	Promoting proper voice use in classroom teaching using iPhone/iPad (iOS) and Android Apps
Professor Y S HUNG (Engineering)	Publishing the collection of KE articles
Professor Francis C M LAU (Engineering)	Measuring visibility using digital cameras
Dr Vincent LAU (Engineering)	Smart device and robot design workshop and competition
Dr Wilton FOK (Engineering)	Promotion of an Mobile Apps for Knowledge Exchange
Dr Alfred C H YU (Engineering)	Fostering Development of Third-World Rural Villages through Mini-Hydropower Solutions
Dr Ting QU (Engineering)	Establishing an industrial consortium for knowledge exchange of “RFID-enabled smart manufacturing”
Ms Amanda S WHITFORT (Law)	A Comparative Review of Hong Kong’s Wild Animal Conservation Laws
Mr Simon N M YOUNG (Law)	Centre for Comparative and Public Law (CCPL) Human Rights Portal
Professor Cindy LAM (Medicine)	“Explore the World of Medicine” Public Lecture Series
Professor David WONG (Medicine)	Establish a model service for Diabetic Retinopathy screening in China as part of the Lifeline Express initiative
Dr Michael Kai Tsun TO (Medicine)	Web-based Orthopaedic Education – Myths and Science
Mr Sze Leung CHEUNG (Science)	Public Science Roadshow 2012
Professor Lung Sang CHAN (Science)	Initiatives to Promote Earth Sciences and Global Change Issues
Dr Petra BACH (Science)	Permanent exhibition on Cenozoic Climate Change
Dr Jordan POTASH (Social Sciences)	Guided Relational Viewing: Art Therapy for Social Change
Dr C Harry HUI (Social Sciences)	Screening of Disaster Relief Volunteers
Dr Karen S L CHEUNG (Social Sciences)	Healthy Longevity: The Emergence of Oldest-old and Centenarians
Dr Petula HO (Social Sciences)	A NGO capacity building project – Training workshops and community forums for understanding changing families in Hong Kong
Dr Rainbow Tin Hung HO (Social Sciences)	End of Life Social Enterprise – Training Cancer Survivors and Volunteers on Life and Death Education for Terminal Ill Patients
Dr Pamela LEUNG (Social Sciences)	Integrative Body-Mind-Spirit Approach to Patient Empowerment
Professor Paul S F YIP (Social Sciences)	Understanding Suicide and Depression (Information Booklet)
Ms Katherine MA (CPAO)	Report on positive media impact related to knowledge transfer coverage, including print, on-line and electronic media
Ms Jennifer FLINT (HKU Press)	Hong Kong University Press Website Accessibility
Mr Masato KAJIMOTO (JMSC)	Online Journalism for HK Secondary Schools
Ms Diane STORMONT (JMSC)	Establishment of a Digital Audio-Video Archive: Hong Kong, China and Asia-wide Current Affairs, Historical Footage and Significant Moments, Trends and Events in Our Modern History
Professor Paul CHEUNG (TTO)	Entrepreneurship Academy
Professor Paul CHEUNG (TTO)	FICPI Patent Drafting Course
Professor Paul CHEUNG (TTO)	Night at the Science Museum
Mr David PALMER (HKU Libraries)	HKU ROS data enhancements
Mr David PALMER (HKU Libraries)	Project Manager – Scopus Data Download & Hub Merge

## Student KE Projects

The Student KE Project Grant Scheme was introduced this year under the KE Funding Exercise in order to promote a student culture of contributing to society through applying their knowledge gained at HKU; to nurture the spirit of innovation among students; and to promote the development of engagement projects between students of the University and external organizations. The Scheme is open to all currently enrolled full-time students of the University, including undergraduate, research postgraduate and taught postgraduate students. Each team must have a minimum number of three students, including the team leader.

Each project must have a mentor, who may be an academic or academic-related staff member of the University, to supervise the design and implementation of the project. Support and matching contributions, in kind and/or in cash, from a non-academic partner organization outside the University are required. Proposals are considered on a competitive basis, and the award is normally up to HK\$20,000.

The following Student KE Projects were supported in 2011/12:

Student Project Leader (Faculty)	Team Members	Faculty Mentor	Partner Organization	Project Title
Mr Charles FONG (Arts)	Ms Heidi LAW Ms Junyan CUI	Dr Robert PECKHAM	Fringe Club	Lighthouse Productions
Mr Dickson CHAN (Business & Economics)	Mr Justen Kwok Yee LI Miss Audrey Cheuk Kei WONG Mr Chung Wah CHEW Miss Che Yin AU YEUNG Mr Lai Kang LAU Miss Hiu Yan CHING Miss Sze Long YIU Miss Mei Ki KWONG Miss Wai Man CHU	Professor David BISHOP	Soap Cycling	Soap Cycling Project
Mr Tau Shen LIM (Business & Economics)	Mr Chun Chuen CHU Miss Serena Lok Sze LEUNG	Professor Tin Sau CHEUNG	Young Entrepreneurs for Society Network (YES Network)	Empowering Social Enterprises through US!
Miss Wing Sze HUI (Business & Economics)	Mr Leong CHAN Mr To Ching CHAN Miss Antonia Wai Han CHENG Mr Shok Yuen CHEONG Mr Benjamin Ka Chun LAW	Dr Michael CHAU	Déjà vu Creation	Upcycling for a Change
Miss Huimin BAO (Business & Economics)	Miss Xiaoying LIANG Miss Ouya WANG	Dr Winnie Siu Ching LEUNG	The Kairos Society	Leap of Young Entrepreneurship
Miss Yifeng LI (Business & Economics)	Miss Jiasi CHEN Miss Chang CHEN Miss Wen SUN	Dr Winnie Siu Ching LEUNG	The Oaks, and The Hong Kong General Chamber of Small and Medium Business	New SME: Social Mission Engagement
Mr Yu Wai TO (Business & Economics)	Mr Dian DENG Mr Yau Wai SHIU Miss Qingqing CAI	Dr Winnie Siu Ching LEUNG	Junior Achievement Hong Kong	Business Ethics: Pathway to Future Leader
Miss Shirley Ching Ching KOT (Dentistry)	Mr Chao JI Mr Chu Hang LEUNG	Dr Chaminda Jayampath SENEVIRATNE	Hong Kong Federation of Youth Groups	Bridging Dentistry with Secondary School Science in Hong Kong
Miss Kwan Ning MA (Dentistry)	Miss Stephanie Yuen Ting SO Mr Yau Sing WONG Mr Alex Pui Chung LEE Miss Chao ZHONG	Dr Yanqi YANG	Tsan Yuk Hospital (the ante-natal day centre under Queen Mary Hospital)	Promotion of Children's Oral Health through Knowledge-building among Ante-natal Women
Miss Krithika CHANDRA MOULI (Engineering)	Miss Felicia Syan Ni DING Mr Ankit SURI Mr Chris Yat Hang LAM Mr Christopher YU	Dr Wilton FOK Dr Albert KO	Ion Exchange Asia Pacific Pte Ltd	The Building of Water Filters for Clean Water Availability in Less Developed Communities
Ms Yan Chie CHENG (Engineering)	Mr Chi Kin CHEUNG Mr Philip Yin Ho LEUNG Mr Jevons Cheuk Hei CHAN Mr Matthew Hou Fung CHAN Ms Lourdes Dik Yee SIU	Dr Wilton FOK	The Hong Kong Institution of Engineers	Engineering in the Centennial
Miss Ammie Xiaofei WANG (Engineering)	Miss Grace Chencen CAI Miss Sunny Yingying ZHANG Miss Yu Ho KWOK Mr Yiran LI	Professor Ben YOUNG Dr Wilton FOK	The High School Affiliated to Guangxi Normal University	HKU Buddy Program
Mr William FITZGERALD (Law)	Mr Mora ANDRES Miss Lee LEE	Ms Kelley LOPER	Vision First	Refugees in Hong Kong – Bilingual YouTube Channel
Miss Pamela Sze Pui TIN (Medicine)	Mr Man Ping WANG Miss Rong HUANG	Dr Daniel Sai Yin HO	Federation of Parent-Teacher Associations of the Central and Western District Limited	What's for Breakfast? – Promoting Healthy Breakfast Habits among Primary School Children
Mr Kwun Ting CHEUNG (Medicine)	Mr Huen Sum LAM Mr Nan XIA	Dr Angela Yee Man LEUNG	S.K.H. Holy Carpenter Church, and St. James' Settlement Central and Western District Elderly Community Centre	Is Your Daily Vitamin D Supplement Enough? – A Training Workshop for Senior Volunteers in the Community
Mr Xudong FAN (Science)	Mr Duo ZHANG Mr Jeremy LEE	Professor Frederic C. C. LEUNG	The Hong Kong Institution of Engineers	The Exploration and Promotion of the Solar Renewable Energy in HKU
Miss Li SUN (Science)	Mr Wen Xing JIN Mr Wing Hin CHAU	Professor Ching Yung MA	Mou Hing Food Catering Company	Development and Evaluation of a Traceability System in a Small Medium Food Company
Miss Viviana Chiu Sik WU (Social Sciences)	Miss Cindy Lin Fei QU Mr Bob Chiu Chun CHAN	Professor Wai Fung LAM	Social Innovation Academy	Breeding Social Innovators – Pioneers for Change!

## Three Minute Thesis (3MT™) Competition 2012

The Three Minute Thesis (3MT™) Competition 2012 will be held on Tuesday, May 29, 2012 at Graduate House. Registration is now open for final-year research postgraduate students until Friday, May 4, 2012. For details, please visit the 3MT website: <http://www.ke.hku.hk/hku3mt/>.



# Knowledge Exchange Conference cum “3+3+4” Symposium on Knowledge Transfer

The **Knowledge Exchange Conference: Knowledge Transforming Society**, led by HKU, was successfully held on December 5-6, 2011 at the Hong Kong Convention and Exhibition Centre.

Knowledge Exchange, or Knowledge Transfer, has formally been recognized by the University Grants Committee (UGC) and is described as the “third mission” of higher education. With support and sponsorship from UGC, HKU together with all the other UGC-funded institutions jointly organized the

KE Conference, which incorporated the “3+3+4” Symposium on Knowledge Transfer.

The development of KE as an institutional mission, alongside teaching & learning and research, is still a relatively new concept to the higher education sector in Hong Kong. The Conference provided a platform for experience sharing between overseas experts and local academics and practitioners, and for exchange of views on issues of common concern in taking KE forward.



Dialogue between (from left) Mr Michael Lynch, CBE, AM (West Kowloon Cultural District Authority) and Professor Daniel Chua (HKU) on “Arts for Everyone: The Case for Culture in Hong Kong”

The Conference has explored issues that have implications on effective delivery of the KE mission, including the intricate interplay between government policies, institutional policies and culture, and changing business and community needs; impact assessments of technology-based and non-technology-related KE activities; and open access. It also provided new insights on how higher education institutions and industry, business, the public sector, non-governmental organizations, and schools, etc., could work in concert through knowledge partnerships to address the many complex issues facing Hong Kong and the region.

The 2-day Conference featured a total of 15 overseas speakers and 63 local speakers, of which 55 were from the eight UGC-funded institutions. The Conference also provided an avenue for the UGC-funded institutions to showcase their accomplishments in KE to interested stakeholders. In addition to conference presentations by speakers from the eight institutions, an exhibition with 43 posters was held concurrently. HKU presented a total of 27 success stories through conference presentations and posters.

“We see knowledge exchange as not only being intrinsically interwoven with research and teaching, but accepted as almost an everyday part of what we do,” says Professor Lap-Chee Tsui, Vice-Chancellor and President of HKU. “Knowledge flows both ways; while we contribute our knowledge to our community, stakeholder input will further enrich our teaching and learning, and research activities.”

The Conference was very well attended, with over 550 participants from Hong Kong, Mainland China, Macau, Japan, Indonesia and UK. Apart from academics, administrators and students of the UGC-funded institutions, there were participants from different stakeholder groups, e.g. government, consulates, non-governmental organizations, charitable organizations, professional associations, primary and secondary schools, R&D companies and legal firms.

Presentations and posters are available on the Conference website: [www.keconference.hku.hk](http://www.keconference.hku.hk).



Back row from left: Professor Paul Cheung (HKU; Co-chairman of Organizing Committee), Professor Teck Seng Low (Agency for Science, Technology and Research, Singapore), Dr Alan Paau (Cornell University, USA), Professor Paul Tam (HKU; Advisor to Organizing Committee), Professor Rick Wong (HKBU), Professor John Malpas (HKU; Advisor to Organizing Committee), Professor Mitchell Tseng (HKUST), Professor Alfred Chan (LU), Ms Sharon Tam (CUHK), Professor John Bacon-Shone (HKU; Co-chairman of Organizing Committee)

Front row from left: Professor Warren Bebbington (The University of Melbourne, Australia), Professor Anthony Cheung (HKIEd), Ir Dr Hon. Samson Tam, JP (Legislative Council, Hong Kong), Miss Janet Wong, JP (Innovation and Technology Commission, HKSAR Government), Professor Lap-Chee Tsui (HKU), Professor Eng Kiong Yeoh, JP, GBS (UGC), Hon. Mrs Regina Ip, GBS, JP (Legislative Council, Hong Kong), Professor Way Kuo (CityU), Professor Philip Chan (PolyU), Professor Eugene Wong (University of California, Berkeley, United States)



From left: Professor John Bacon-Shone (HKU; Co-chairman of Organizing Committee), Mr Jerry de la Harpe (The University of Melbourne, Australia), Professor John Houghton (Victoria University, Australia), Professor Kim Knott (University of Leeds, UK), Professor dr. Maurits van Rooijen (Nyenrode Business Universiteit, The Netherlands), Professor Walter Yuen (PolyU), Sir Brian Fender (The Institute of Knowledge Transfer, UK), Professor Christopher Megone (University of Leeds, UK), Mr Tom Hockaday (Isis Innovation Ltd, UK), Professor Paul Cheung (HKU; Co-chairman of Organizing Committee)

## Finding Experts

The **HKU Scholars Hub** is the University’s online expertise directory, which makes HKU researchers and their research visible. It provides an expert finder for businesses, industries, social enterprises, the public sector, and interested student applicants to find HKU experts for contract research, consultancies, and postgraduate student supervision etc. Please visit the HKU Scholars Hub at <http://hub.hku.hk/>.



## Tech Ready

For a complete list of HKU technologies that are currently available, please visit: <http://www.tto.hku.hk>



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