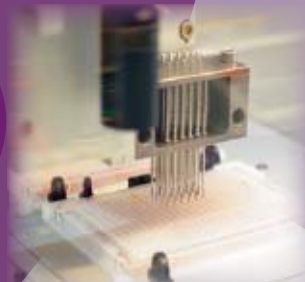


# Accelerated Systemic Efforts – Visible Structural and Social Benefits



## The Chinese University of Hong Kong

**Annual Report on Recurrent Funding  
for Knowledge Transfer in the 2009-12 Triennium  
1 July 2010 - 30 June 2011  
to the University Grants Committee**

# THE CHINESE UNIVERSITY OF HONG KONG

## **Annual Report on Recurrent Funding for Knowledge Transfer in the 2009-12 Triennium for the period 1 July 2010 – 30 June 2011**

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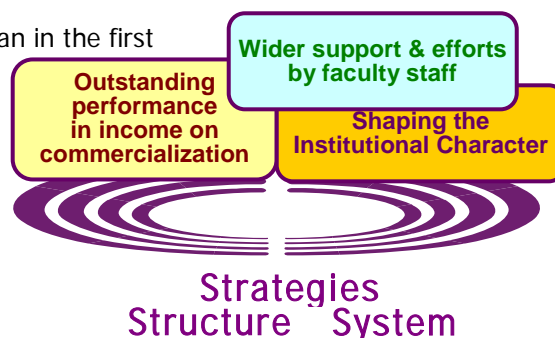
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## Executive Summary

### Accelerated Systemic Efforts – Visible Structural and Social Benefits

The reporting year was the second year of the Recurrent Funding for Knowledge Transfer (KT) provided by the University Grants Committee (UGC) for the triennium 2009-2012 (the KT Fund). Over the year and now into the third year, The Chinese University of Hong Kong (CUHK) has harvested visible outcomes in wider support and efforts by faculty staff, outstanding performance in income on commercialization, and shaping its Institutional Character in KT as a caring University through the many community-based projects.

The outcomes achieved have been the systemic efforts which began in the first year and accelerated in the second, as well as the solid foundation over the years of the University; and very importantly are underpinned by the Three Core Initiatives of the past year – **Structure, Strategies, Systems**. On the basis of such, the University will continue to build a supportive and vibrant environment for KT, and cultivate the spirit and capacity for KT among staff and students, so as to help in particular the faculty members to embrace KT as an integral part of their teaching and research work.



## Section A: Outcomes and Benefits Achieved

### I. Wider support and efforts by faculty staff

These have been reflected by the good increase in the number of proposals received for Funding Schemes for both technology-based and non-technology based projects, new initiatives brought along with the projects, and the strong participation rate and enthusiasm displayed by the faculty and research staff at an array of awareness building and knowledge enhancing events organized mainly by the University's Knowledge Transfer Office (KTO, or formerly the KT Unit).

#### 1. Knowledge Transfer Project Fund (KTPF) and New Initiatives

- 1.1 With the recognition and support for non-technology based KT activities being actively promoted by the KT Unit since the first year of the KT Fund, a much stronger concept of this category of more community-based projects has taken root among the Faculties. The figures have been obvious – a total of 62 proposals for the KTPF were received for 2010-11, as compared with 45 in 2009-10.
- 1.2 **Ownership** of the projects by Faculties has continued to be demonstrated by their proposals and project reports which are all signed by the Project Leaders, Department Chairmen and Faculty Deans. Annexes 6.2 & 6.3 contain the lists of 9 completed projects and 9 still in progress for the 2009-10 round (total 18), whilst Annex 6.4 appends the 25 projects newly funded in early 2011, making a total of 43 projects funded over the two years. Project Leaders and their teams have been much encouraged by the achievements made in reaching out to large numbers of members of the community and industry, and the visible benefits brought to them as shown in the Annexes.
- 1.3 For the new round of projects in 2011, "**New Initiatives**" has been one of the criteria for funding, thus encouraging innovations to emerge from each Faculty on the basis of its expertise.

#### Success Story

A typical example has been the **inter-disciplinary collaboration** between the Department of Anthropology and School of Hotel and Tourism Management to create new walking tours for the appreciation and study of the heritage of the Sheung Wan neighbourhood and their historical trade of dried food, for the promotion of the tourism industry as well as the revitalization of the local heritage.

- 1.4 Strong support and efforts have been received from faculty members as they very much appreciate the **leverage effect** on stimulating and implementing new ideas, which might not have been as successful without the KT Fund and UGC's recognition for KT as the "Third Mission" of institutions.

#### 2. New Funding Schemes

On the technology front, more active participation by researchers in patent applications and technology development has been achieved through two New Funding Schemes which build on the strengths of the University, and motivate the more potential but less active faculty members to overcome some fundamental hurdles in conducting technology transfer, such as:

- How do I get started with patent applications? Why not just publish the results?
- How do I take the research outcome forward? Will I get the much needed support?

### 2.1 Patent Application Fund (PAF)

The Scheme encourages and motivates inventors to pursue intellectual property (IP) rights protection of their research achievements. For instance, at a relatively lower cost, inventors can use the fund to apply for provisional patents to secure an early filing date and allows the inventor to safely make disclosures of the inventions before making any substantial investment in the formal application.

### 2.2 Technology and Business Development Fund (TBF)

The Scheme supports inventors to explore the commercial potential of their invention, promotes and enables technology development and transfer, so as to turn IPs into an outcome which is more ready for commercialization with enhanced marketability.

Enthusiastic response has been received since the launch of the Schemes and enhancement of the assessment process from April 2011. Within the three months till end-June, 21 applications for PAF were received with 16 approved for Provisional or Non-Provisional Patent filing. A substantial increase was also recorded for applications for commercialization support, with 18 applications received for TBF which had more than doubled the number in the previous nine months. Funding has been provided for 8 TBF applications, which together with 3 projects supported by the KT Fund in the previous year, are contained in Annexes 8 & 9.

#### Success Story

An example has been the funded project "Customized Enhanced Sound, Sentinel Speech" which has created new inter-disciplinary collaborations between the Department of Electronic Engineering and Department of Otorhinolaryngology, Head and Neck Surgery, and strengthened the partnership between the academia and the industry through the licensing arrangement. The invention has also been elected one of the twelve Finalists for the Asian Innovation Awards 2011 organized by the Wall Street Journal Asia.

In addition to the rise in applications, the New Funding Schemes, together with our efforts to promote them, have not only increased the participation of faculty members, but more importantly made them more engaged in seeking to enhance the environment in support of technology transfer by making proactive suggestions for the process, and being more committed to patenting and licensing activities.

## 3. Total 15 Events to Raise Awareness and Equip our Colleagues

The year 2010-11 has been very fruitful in reaching out to hundreds of staff, students and external members through a total of 15 internal and external events, in order to foster the culture and enhance the capacity in KT. International and local KT experts and lawyers had shared their practical skills and success stories at forums, seminars and workshops organized by the KTO. The participants had been inspired by the wide horizon of non-technology based KT, or equipped with the knowledge in patent applications, marketing and exploration of commercialization opportunities. Direct face-to-face discussion at visits by the Director and colleagues of KTO to Faculties was also found to be very effective to get academics to ask questions and become engaged, which they might not take the initiative to do if there was not the KT staff to actually go to them. Below is a list of these events from which the support and impact have been generated.

Internal KT Seminar Series and Workshops			Participants
1.	9 Aug 2010	Intellectual Property Protection and Commercialization of Research Outputs	230
2.	10 Nov 2010	Knowledge Transfer on a Wide Horizon: Impact and innovation in Non-technology based Projects	
3.	23 Nov 2010	Commercialization of University Innovations in Technology-based Projects	
4.	17 Feb 2011	Protection of Your Inventions and Discoveries: Basics and Updates	
5.	14 Mar 2011	KT Experience-Sharing Lunch – Commercialization of Biomedical Inventions	
6.	11 Apr 2011	KT Workshop on Practical Patent Filing	
External Forum, Conference Seminar			
7.	29 Oct 2010	Licensing Negotiation Simulation – jointly organized by Technology Licensing Office CUHK, EMBA CUHK, HKTDC, Licensing Executives Society China (HK sub-chapter)	100
8.	8–9 Nov 2010	Knowledge Transfer Conference 2010 – jointly organized with UGC-funded institutions	450



9.	26 Nov 2010	InnoAsia 2010 (CUHK Knowledge Transfer Forum) with the Hong Kong Science and Technology Park	200
<b>Faculty Visits (Tailor-made Talks)</b>			
10.	21 Oct 2010	Faculty of Education special session on KT	230
11.	21 Oct 2010	Faculty of Arts Board Meeting	
12.	31 Oct 2010	Faculty of Science Retreat Day	
13.	18 Feb 2011	School of Biomedical Sciences	
14.	11 Mar 2011	Department of Orthopaedics and Traumatology Research Day	
15.	8 Apr 2011	Executive Orientation Programme	
		Visits to Faculties not on this list had been conducted earlier.	

Encouraging feedback was received from the audience we had reached out to. The overall satisfaction rate for the Knowledge Transfer Seminar Series ranged from 79% to 100%. There were also requests for more of such events to further equip them and their team members.

## II. Benefits from Commercialization

Technology development and commercialization are endeavours to add value to research efforts, benefit society and improve industry productivity, as well as to create financial returns that allows sustainable growth in innovations by the University and inventors.

### 4. Remarkable Income

In the past financial year, the University has harvested outstanding performance in income from IPRs at a total of **HK\$18.67** million. The income is almost six times of the same item in the preceding year although it has to be noted that IPR income does not spread evenly over years. In any case, it has boosted the University's overall income to more than **HK\$248** million from various KT activities including contract and collaborative research, consultancies, and spin-off companies (Annex 1).

### 5. Rise in Patents and Licensing

A significant rise was also recorded in the number of patents filed and granted by patent offices worldwide – up from 109 of the previous year to 148 for 2010/11; and from 36 in 2009-10 to 68 in 2010/11 respectively. Successfully-licensed technologies span many of the fastest-growing technical fields. Notably, there has been a marked growth in the number of licenses and amount of IPR income in the fields of **biomedical, healthcare, and life sciences**, which together has been a core area for strengthened development in the Initial Statement to UGC. Such developments include an agro-biotechnology for the production of recombinant insulin-like growth factor-I (IGF-I) and insulin-like growth factor binding protein-3 (IGFBP-3); and a device for the prevention and treatment of osteoporosis and associated musculoskeletal problems.

### 6. Success Story

The major transaction of the year had been the one in May which involved royalty-bearing licenses and a sponsored research agreement with a US-based life science company which offers innovative genetic analysis solutions. The technologies have been generated from a ground-breaking discovery by Professor Dennis Y M Lo, Li Ka Shing Professor of Medicine and Director of the Li Ka Shing Institute of Health Sciences, whose research team first reported the presence of cell-free fetal DNA in maternal blood plasma in 1997, and have recently developed a cutting-edge technology for scanning the entire genome of a fetus non-invasively from a blood sample obtained from its pregnant mother. The team's research innovations have not only led to publications in a number of premier biomedical journals such as *Nature Medicine*, *the British Medical Journal* and *Science Translational Medicine*, but also opened up the gateway for a new generation of non-invasive prenatal diagnostics.

## III. Shaping Institutional Character

As a research based comprehensive university, CUHK has the edge of offering a more all-round approach to KT with the combination of its strengths from all the eight Faculties – Arts, Business Administration, Education, Engineering, Law, Medicine, Science, and Social Science. The spirit of caring for and addressing the social needs and concerns has been an important element in projects supported by the KT Fund since 2009-10 and into the second year, which is in line with the university-wide "I Care" campaign chaired by the Vice-Chancellor which endeavours to instil in the students a sense of social responsibility through awareness building and activities with a caring component. KT Fund community projects have been organized under the themes below. We are glad to see fruitful results from the great efforts of members at all Faculties in the social impact and nurturing the capacity of entrepreneurship (including social enterprises), thus gradually building up the institutional character of CUHK in KT.

## Themes 2009-10

### Social Care

- Health Concerns
- City Planning and Environment
- School Reform
- Quality of Life

### Nurturing the KT Spirit & Capacity

- Industry Links
- Entrepreneurship

## Themes 2010-11

### Social Care

- Health Concerns
- City Planning and Environment
- Arts and Culture
- Raising Professional Standards

### School Reform

### Nurturing the KT Spirit & Capacity

- Industry Links
- Entrepreneurship



Annexes 6.2-6.4 display results achieved by completed projects, and targets of the new and on-going ones.

## **7. Project Highlights exemplifying the “CUHK Care”**

### **7.1 2009-10 Funded Projects (18 in total, 9 completed)**

#### **(a) Training programs of Geriatric-orthopaedics – Fall and fragility fracture prevention**

A total of 1074 participants, including 635 elderly, have benefited from this series of fall prevention programs. Workshops and talks were tailor-made for elderly centres, family physicians, carers, nurses, social workers, to meet their social and professional needs and concerns, so as to engage, transfer and broaden KT to their benefits. The social impact resulting from the reduced social cost to hospitals and carers is far-reaching.

#### **(b) Fight against Cardiovascular Disease – An Online Knowledge Transfer Project**

CUHK's Nethersole School of Nursing has developed a free health consultation website in Chinese, “CVHealth website”, which, being the first of its kind, is culturally relevant and user-friendly in the prevention of coronary heart disease, stroke and hypertension. In just 10 months since its launch, the health KT website has received more than 40,000 hits and was widely browsed by local and mainland Chinese viewers. Some 740 community members and elderly have benefited from the free talks and on-site health checks.

#### **(c) Entrepreneurial Impact of CUHK Alumni in Hong Kong**

An unprecedented study had been carried out with an aim to assess the entrepreneurial impact of CUHK alumni to Hong Kong and the world over the past 40 years. As one of the results, about 100 CUHK entrepreneurial alumni have shown their support through the project by acting as mentors for students. A database for the establishment of the Alumni Entrepreneur Membership Programme, and a permanent website for CUHK Alumni Entrepreneurs have been created for networking and experience sharing on entrepreneurship, business venture and partnership.

#### **(d) CUHK Open Innovation Network (COIN)**

The implementation of the Open Innovation model has successfully linked to a wide spectrum of industrial and commercial organizations, facilitating technological transfer and industrial collaboration among members. Joint collaborative work in LED technologies development and submission of an ITF proposal on development of RFID Smart Ward are examples of the outcome.

### **7.2 2010-2011 Funded Projects (Total 25)**

#### **7.2.1 Health Concerns**

##### **(a) Promoting Men's Health in the IT Era**

Culturally, men are often portrayed as being strong and tend not to discuss their health problems publicly, which may cause delay in medical treatment. To raise the awareness of men's health and improve men's health behaviour, the project adopts a new approach of knowledge via new media. As of 16 June 2011, there have been more than 1000 downloads of the i-Phone application which provides self-assessment tools for monitoring chronic health parameters. More than 90 people have joined the Facebook® page “Watch.man” for more support.

##### **(b) Cognitive Behavioural Training (CBT) for family caregivers of dementia**

The physical and psychological well-being of family caregivers of dementia patients cannot be overlooked. Internet-supported therapeutic interventions have been developed overseas, but these are not available in Chinese. The KT project aims to develop a CBT based online programme in Chinese as a new and effective means to support caregivers in the local community, Mainland China, Taiwan and other regions. The Project Leader is also the Director of the Jockey Club Centre for Positive Ageing, a wholly-owned subsidiary of CUHK which offers much needed day care service for dementia patients and their carers.

### 7.2.3 Social Concerns

Not even the minorities should fall out of our scope of care - "The Rights of Migrant Women Sex Workers in Hong Kong" project carried out by our Faculty of Law seeks to empower these women by informing them of their rights so as to increase the legal protection for them.

### 7.2.4 City Planning and Environment

Two proposals, An Electronic Tree Identification Encyclopedia and Urban Climatology for Tropical Regions, address public concerns for the environment and sustainable living which have become a social concern. The project on urban climatology aims at disseminating knowledge to professionals in the industry whilst the other one educates the public in leading a sustainable life for the future.

### 7.2.5 Arts and Culture

#### Method as Knowledge: Documenting and Investigating Musics of Hong Kong

The project aims to alert Hong Kong community of the wealth of Hong Kong music cultures and provide training for local specialists such as school teachers and community folklorists to cultivate public awareness of the local musical heritage.

### 7.2.6 School Reform

To support secondary school teachers in meeting the challenges of the New Senior Secondary School Curriculum, CUHK faculty members from various departments have actively created new and forward-looking projects to transfer knowledge to school teachers with the aim of expanding their expertise to enhance their capabilities and professional skills.

These KT projects span from encouraging school teachers to use imaginative texts to promote critical thinking, form new perspectives in ancient civilizations in the curriculum, set up a web-based community of learning, to the establishment of a university-school partnership programme to develop young writers' talents in writing short stories.

### 7.2.7 Entrepreneurship

New projects are supported to continue with our systematic effort in nurturing the KT spirit and capacity:

#### (a) CUHK Alumni Entrepreneur Network

This is a continuation project driven by response to the Entrepreneurial Impact of CUHK Alumni. It creates a web-based network for alumni mentors to share their experience with and expert advice for CUHK students in starting up business and commercializing technologies.

#### (b) Global Entrepreneurship Week Hong Kong (GEW Hong Kong)

This will be held in November 2011 to promote value creation, innovation and entrepreneurship, and to encourage students and research staff to meet and interact with entrepreneurs who can act as role models across faculties considering entrepreneurial careers.

## 8. **Strong Social Impact**

In addition to contributions of the above-mentioned projects supported by the KT Fund, CUHK takes pride in another large number of KT activities with funding from many different sources – Government, industry, social organizations, and charities, which have achieved significant impact in either raising the standards of the industry or improving the quality of life of the community, when reaching out to hundreds of thousands of beneficiaries (Annex 7):

	No. of Projects	No. of Beneficiaries
KT Fund	43	570,084
Non-KT Fund	316	592,205

Behind these statistics (2010-11) are social improvement initiatives and good examples of university expertise tailored for specific needs of the industry:

#### **Community**

Project	Beneficiaries (No.)	
Jockey Club CADENZA Hub	23,872	Seniors for health assessment and management service
Project Vision Charitable Foundation	~10,000 (2010-11)	Cataract patients in Mainland China (free surgery for them), & 60 local doctors being trained up
Centre for Sign Linguistics & Deaf Studies	491	Deaf / hard-of-hearing children and parents
Food Research Centre	General public, industry	Nutrition analysis for over 1300 food products and common food ingredients; and raising the awareness of healthy balanced diet

#### **Industry**

Industry group served	People served	CUHK Provider
MTR Corporation Executive Continuous Learning Programs	439	<ul style="list-style-type: none"><li>• HK Institute of Asia-Pacific Studies</li><li>• The Asia-Pacific Institute of Business</li></ul>

Programs for high level executives and CFOs	544	Institute of Global Economics and Finance
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Consultancies and training programs have also brought in good income for the University – at nearly **HK\$102 million** for the reporting year (Annex 1).

## 9. Proposed Awards or Publicity Highlights for Outstanding Projects

For the large number of CUHK members who have been making immense contributions through a wide range of KT initiatives, awards or highlights to be selected for publicity in newsletters will be explored to offer further recognition and encouragement.

## Section B: Three Core Initiatives

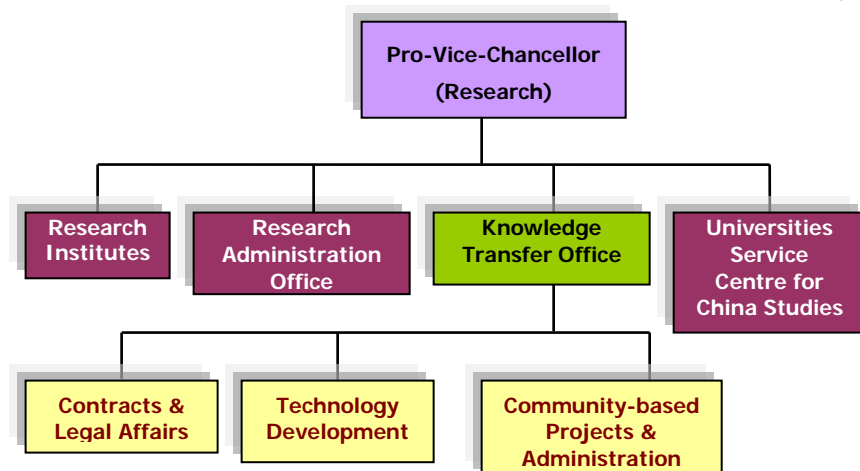
It would not have been possible to produce outcomes as elaborated in the above from both technology-based and non-technology based KT endeavors without the three Core Initiatives of “Structure, Strategies and Systems” which have been developed or reinforced at the University in the past year.

## IV. Structure

### 10. The New Knowledge Transfer Office

As we reported last year, in order to meet the major requirement of UGC for institutions to build up the infrastructure and capacity to promote and broaden the endeavours in KT, a new Knowledge Transfer Unit (KTU) at CUHK was established in 2009-10 to actively promote and support KT across all Faculties.

Recognizing that it is vital to provide an enhanced structure for the University to continue to build on its capacity and foster the culture in KT, the KTU and the Technology Licensing Office have been integrated since March 2011 to become the Knowledge Transfer Office (KTO) in order to offer synergy and more streamlined support and services for the faculty and industry.



The new KTO, which has a staff strength of 15 persons, reports to the Pro-Vice-Chancellor (Research), and comprises three core areas of business and services, namely, **Contracts and legal Affairs, Technology Development, and Community-based Projects and Administration** which are designed to take up a variety of roles and responsibilities for the new mandate of KT serving all the Faculties. An aspect of KTO's work which has not been depicted in the above is the large volume of KT-related contracts and agreements

reviewed (744) and executed (495) by the KTO. The contract value involved in the reporting year was more than HK\$197 million (Annex 12).

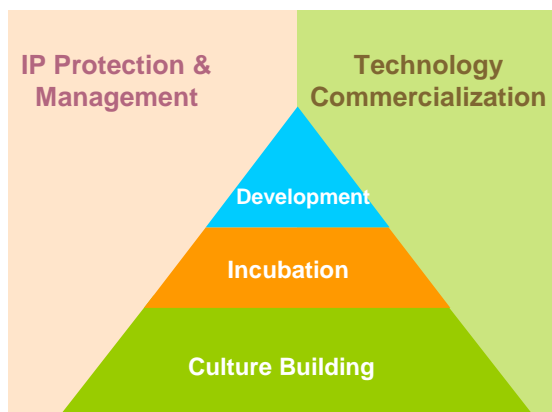
In overseeing the strategies, planning, promotion and coordination of KT across the University, KTO is charged with the overarching responsibility of protecting IP rights for outputs of the faculty, whether such activities are carried out within Hong Kong or beyond. KTO therefore also plays an important role in IP related matters including those for the CUHK Shenzhen Research Institute, and the Recruitment Program of Global Experts (“Thousand Talents Scheme”), which is a collaborative initiative with Mainland institutions.

## V. Strategies

### 11. The multi-layer Strategy for Technology Development

To provide a supportive environment for technology development and commercialization, we have adopted a multi-layer strategy with three key components of **Culture Building, Incubation, and Development**, targeting Faculties and projects at different development stages.





### 11.1 Culture Building

To enhance the awareness of the strategic importance and benefits of IP protection and commercialization, educational and experience-sharing seminars and workshops, including one-on-one consultancy and training sessions, are organized to target the entire CUHK.

### 11.2 Incubation

Advice and support are provided to potential inventors and project leaders to motivate and coach them through the patent application and technology development process. Not surprisingly, many of the University's research endeavours are not initiated with the aim to seek

commercialization or address market needs. Significant amount of efforts have been put in coaching the researchers through project visits, meetings, and other forms of communications.

An interesting **change** we have noticed recently is that, after KTO's coaching and incubation efforts, there has been an increasing number of inventors choosing to finance patent applications using their personal fund instead of University or Government funding, indicating growing enthusiasm and willingness of CUHK staff to engage in IP and commercialization-related activities apart from their teaching and research duties.

### 11.3 Development

This refers to projects where the invention and technologies are more mature and closer to the commercialization step. Efforts at this stage are directed towards technology validation, marketing, and exploration of collaboration opportunities. New funding schemes such as the Technology and Business Development Fund has been set up to provide the necessary capital that helps turn the research innovations into business propositions, further strengthen an IP position through technical development, or focus on prototype design and development.

Examples of funding include clinical trials for intelligent anti-sprain devices which have attracted interests from multinational sports companies; medicinal chemistry-based method optimization which is readily adoptable by the pharmaceutical industry; and testing of prototype endoscopic surgical device for treatment of early gastrointestinal cancers.

As time is of essence in IP protection and commercialization, a proactive outreach approach plays an important part in our multi-layer strategy. We have successfully convinced and helped many inventors, who often prefer journal publication over patent application as university academics, to secure IP protection in time.

### Success Story



A good story to share is the development of a non-invasive diabetic retinopathy (DR) screening tool developed to improve efficiency of DR screening that helps reduce blindness. Without our "coaching meeting" with the inventors, the provisional patent might not have been filed in time before manuscript submission. To the encouragement for all involved, the technology was then selected for a series of venture business competitions including the renowned Venture Labs Investment Competition, and had won the **awards** of CUHK's Vice Chancellor Cup for Entrepreneurship (VCCE) and "E. Craig Nemec Achievement

Challenges – Austin Ventures" prize. With patent protection in place the technology has drawn keen attention from a number of potential investors. With further investment and development, the technology is expected to benefit about 300 million diabetic patients worldwide and significantly reduce the economic burden incurred on the healthcare system.

## 12. U-wide Establishments and New Initiatives

12.1 Over the years, the Centre for Innovation and Technology (CINTEC) and Centre for Entrepreneurship (CfE) of the University have been dedicated to industrial networking and entrepreneurship.

12.2 Since the past year, the KT Fund has been utilized not only to support projects of Faculties, but also university-wide initiatives to build and enhance the infrastructure to facilitate KT. The important

message is that there needs to be inter-departmental collaboration to contribute to the overall capacity of the University.

- 12.3 An essential requirement of these u-wide projects is that they must be promoted to all Faculties and disciplines, and the benefits of them must be extended to all. There are three projects of such funded in 2010-11 being carried out with the synergistic efforts of CINTEC, CfE and KTO:

(a) Databases on Industrial Contacts (led by CINTEC)

Industrial contacts which have been scattered over different centres and offices of the University will be put together with more functions and capabilities for strategic marketing and exploration of opportunities, thus pooling resources and networks.

(b) Global Entrepreneurship Week (GEW) Hong Kong

(c) CUHK Alumni Entrepreneur Network

Both projects are led by the CfE. Details have been described in the earlier Section of this report. An important point to take note is that it will be promoted to all Faculties whether in the Arts, Business and Sciences so as to inspire thinking out of the traditional framework that only people from the Business and Sciences can pursue entrepreneurship.

### 13. KT Fellowship Program - Professional Enhancement Fund (PEF)

Planning is underway on this new initiative to motivate and incubate more academics to become active practitioners and advocates of KT to their colleagues. The PEF will provide incentives and funding support for them (who will then become KT Fellows) to take part in local and overseas workshops, courses and conferences on KT, or to visit industrial partners, for professional development and network building.

It will be a requisite for applicants of the Fund to present what KT initiatives they are currently involved and/or will engage in after the funded activity. There will be a requirement afterwards for them to present their insights from what they learn, and to share their experience with staff and students by means of, say, holding experience-sharing workshops or incorporating their learning in their teaching. Active Fellows will receive yearly awards as recognition of their enthusiasm. The ultimate objective will be for culture building and a ripple effect of KT engagement around the campus.

### 14. PR & Marketing internally and externally

Extensive promotion and marketing has been carried out to promote the pervasion of KT at all Faculties for staff and students, and to reach out to industrial partners, institutions, professional associations and the community.

#### 14.1 Internal Promotion

(a) Visiting Faculty members

In addition to attending Faculty meetings to explain institutional policies, funding support and patent application process, regular visits to target groups and individuals have proved to be effective in addressing specific inquiries and motivating engagement in KT.

(b) Promotional materials of practical use which staff, students and collaborators can hold in hand still prove to be effective as people do not tend to easily discard them like materials in the virtual reality.

(c) Announcements of events and seminar reference files to share on the KTO website, email and CUHK Newsletters.

#### 14.2 External promotion of CUHK Technologies

(a) Print and the Media

- Annual Directory of CUHK Innovations (by the Centre for Innovation and Technology, CUHK),
- Innovation and Technology Brochure (jointly by Invest HK, ITC and HK Science Park)
- Pamphlets with inserts on selected technologies to targeted companies, KTO e-Newsletters to industrial and community partners, and other means of marketing are underway

(b) Exhibitions and Network Building

- Exhibitions by CUHK's Centre for Innovation and Technology at InnoCarnival and China Hi-Tech Fair and more to showcase CUHK innovations and attract industrial collaborations
- A list of 21 activities conducted or participated by the KTO during the year is in Annex 11.

(c) The Technology Digest to become more user-friendly

A collection of 400+ non-confidential disclosures of technologies and products for transfer or collaboration on the KTO website. A database, enhanced search functions and more user friendly service are being developed.

## VI. Systems

Whilst KT is much a matter of marketing and partnership building, it also has a strong requirement for solid systems to underpin its success.

### 15. Spin-off Companies

The importance of corporate governance of university subsidiaries and spin-offs is well recognized. Earlier this year, the University has commissioned KTO to further enhance the guidelines on the **Establishment, Governance and Development** of these companies for professional advice and the management's consideration. A new **Committee for University Subsidiaries and Spin-Off Companies (CUSS)** is proposed to be set up for the purpose.

#### 15.1 Establishment

- Clear criteria for the establishment of new companies
- Justifications, business plan, key performance indicators, and core information such as shareholding, income sharing, management team and structure are required
- Requirements laid down for membership of the board of directors according to different levels of university participation

#### 15.2 Governance

- Stringent reporting requirements
- Accountability and requirements for directors - disclose any conflict of interests, exercise due diligence, safeguard the University's interests, attend meetings with CUSS and answer questions
- CUSS examines and approves annual reports and offer recommendations to the University on matters such as investment, disposal of shares and winding up of companies

#### 15.3 Exit Strategy

It is recognized that different companies at different stages of development or business life cycle may have different needs. Start-ups will need a favourable environment to establish, while mature ones should be ready to turn into fully-fledged business enterprises. Based on the periodic reports of the companies and their performance in light of the wider environment, the CUSS will review and communicate an exit pathway with the companies.

### 16. University-wide Committees

In addition to the CUSS for spin-off companies to be set up, the University has in place these committees to oversee and advise on KT activities, and allocate the KT Fund for various initiatives:

- Patent Committee
- Committee on Knowledge Transfer
- Committee on the Advancement of Student Innovations and Entrepreneurship

### 17. Clear Guidelines and Assessment for KT Funding Schemes

Drawing on the experience of the Knowledge Transfer Project Fund (KTPF) for community-based projects launched in 2009-10, the new Patent Application Fund (PAF) and Technology and Business Development Fund (TBF) also have clear guidelines for the approval and use of fund, and the reporting requirements. The KT Committee oversees the KTPF, while the PAF and TBF are under the Patent Committee.

Like KTPF, proposals and reports under TBF also need to be signed by the Department Chairmen and Faculty Deans. A consistent scoring system is in place for the assessment of applications under all the three funding schemes. Internal and external reviewers are involved in vetting applications of PAF and TBF. The approval of the Patent Committee is required for all patent applications using University funds. The committees together with KTO continue to uphold good practice, enhance the policies and systems for rigorous KT endeavours and effective use of resources in such areas as the maintenance of patents.

**Transparency** is the core to achieve by instituting these policies and guidelines and by the vigorous dissemination of them to all faculty staff.

### 18. Performance Indicators further Developed

Intensified efforts have been exerted in devising the Performance Indicators for community-based projects, and the KTPF projects in particular, which have been no easy task in assessing their achievements where quantitative criteria like the income generated is often not their objective.

In the past year, we have fine-tuned and added new dimensions of performance indicators in terms of both quantitative and qualitative metrics for the projects, such as the numbers of partners and beneficiaries involved, and any specific indicators for the particular projects. We are encouraged to see typical examples in projects like “Developing Young Short Story Writers in Secondary Schools in Hong Kong” of the Faculty of Arts. The project goes further to measure the performance in terms of attitude change of teachers and students in the process. For another project, there is the stringent requirement for a certain percentage of respondents to questionnaire before the result can be acceptable. (Annex 6.4)

As for KT projects which are not funded by UGC, we also require input of new performance indicators from Faculties in completing their data report. As shown in Annex 2, these new entries include (a) number of websites on KT activities at Faculties [79]; (b) number of publicity or media exposure related to KT, including print and electronic media [1449]; and (c) community services of individual staff on advisory bodies or external organizations [361]. The results have been amazing as we see how active our faculty staff have been in promoting innovations and serving the community, and thus giving us further insight into the impact of our KT endeavours.

### Looking Ahead

The year 2010-11 has been one we can celebrate for the momentum which continues to gather in building the culture and support for KT by the Faculties, staff and students; and the remarkable performance in commercialization income, and in extending the benefits of KT to the vast number of community members. The leverage effect of the KT Fund has been pivotal in strengthening the necessary internal structure and capacity to enable innovations in thoughts and action.

The strategy in the first two years has been the expansion of the base of buy-in by the faculty. The coming years may see development along different tracks. Both the technology-based and community-based KT will continue to flourish, whilst deliberation will also be given to the costs and benefits of consolidation and more focused development particularly in IPRs and development. Major deals of commercialization do not spread evenly over the years. It is a matching of the market timing; and months, if not years, of cultivation.

Our annual report on the KT Fund in the first year was wrapped up in three “R”s - Resources, Recognition, Ripple; whereas 2010-11 has been the three “S” of Structure, Strategies, Systems. We look forward to much experience to share after this first triennium of the Fund – be it success stories or frustrations, and the shaping of future directions in the triennia to come.



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Professor Henry N C Wong, Pro-Vice-Chancellor  
29 July 2011

**Updates on Table 9.1 of Initial Statement**  
(Data as at 31 May 2011)

		Last year	Current year	Targets/Estimates
<b>UGC Performance Indicators</b>		2009/10	2010/11	2011/12
1	Number of patents filed in the year (with breakdown [Annex 3] by country and type)	109	148	150 or less due to possibly more focused strategies
2	Number of patents granted in the year (with breakdown [Annex 4] by country and type)	36	68	70
3	Number of licenses granted (with breakdown [Annex 5] by type)	24	26	28 or less due to possibly more focused strategies
4	Income (on cash basis) generated from intellectual property rights	\$3,209,749 (a)	\$18,666,885 (b)	\$12,000,000
5	Expenditure involved in generating income from intellectual property rights	\$3,336,858	\$3,987,894	\$4,500,000
6	Number of economically active spin-off companies (with breakdown [Annex 10] by type)	21	21	21
7	Net income generated (or net loss arising) from spin-off companies	\$14,439,000	\$9,345,721 (c)	\$10,000,000
8	Number of collaborative researches, and income thereby generated	35 items \$18,782,214	137 items \$43,077,744	140 items \$45,000,000
9	Number of contract researches (other than those included in "collaborative researches" above), and income thereby generated	206 items \$76,257,494	234 items \$75,507,314	238 items \$77,000,000
10	Number of consultancies, and income thereby generated	277 items \$100,923,114	336 items \$101,909,279	340 items \$110,000,000
<b>Total Income item(4)+(7)+(8)+(9)+(10)</b>		<b>\$213,611,571</b>	<b>\$248,506,943</b>	

(a) This figure has been adjusted from the \$2,491,604 of 2009-10 in order to be consistent with the method of calculation of 2010-11.

(b) The high income in 2010-11 is due to a major transaction in the year.

(c) A major transaction of income had not been able to meet the financial year cut-off.



11	Number of <i>pro bono</i> research or consultancies	172	336	340
12	<p>Number of student contact hours in short courses or e-learning programmes specially tailored to meet business or CPD needs</p> <p>Method of calculation adopted: Courses (Number of hours in a course x Number of students) Generic courses such as MBA and MSc, and courses offered by the School of Continuing and Professional Studies are excluded as per UGC advice.</p>	<p>240,490 hours</p> <p>(705 courses, 25,248 students)</p>	<p>275,997 hours</p> <p>(358 courses 19,206 students)</p>	280,000 hours
13	Number of equipment and facilities service agreements, and income thereby generated	3	3	4
14	Number of jobs created through the new Knowledge Transfer funding	<p>33 from projects funded by UGC KT Fund</p> <p>6 from the Newly established KT Unit</p>	<p>23 from old projects</p> <p>20 from new projects and 2 in the new KT Office</p>	30

**Updates on Table 9.2 of Initial Statement**  
(Data as at 31 May 2011)

		Last year	Current year	Targets/Estimates
Other performance Indicators		2009/10	2010/11	2011/12
1	Number of Public Lectures/Seminars by CUHK – involving secondary school students, practitioners in the industry, or people in the community	676	933	940
2	Knowledge Transfer Project Fund (KTPF) Projects supported by the UGC KT Fund See <b>Annex 6.1- 6.4</b> for details	18	2010/11: 25 Total 43 (including 2009/10) Beneficiaries: 570,084 for 2 years	Accumulative: 63
3	Number of other KT projects or activities not funded by UGC KT Fund	202	Items: 316 Beneficiaries: 592,205	320
*4	Number of websites on KT activities at Faculties/ Departments/ Centres	Data not available	79	90
*5	Number of publicity or media exposure related to KT, including print, on-line and electronic media	Data not available	1,449	1,500
*6	Surveys of outcome or impact achieved on KT activities conducted	Data not available	111	115
*7	Community Services of individual staff on advisory bodies or external organizations	Data not available	361	400
8	Knowledge Transfer Office Website <a href="http://www.cuhk.edu.hk/kto">http://www.cuhk.edu.hk/kto</a>	Set up with regular update	Features to be enhanced	Features to be enhanced
8a	❖ Adding “Technology Digest” with 3 categories: (i) Life Sciences (ii) Engineering/ Computer Science (iii) Physical Science		86 86 10	New and enhanced search functions by title and reference number
8b	❖ Database on Staff Community Services with the search function in 3 categories: (i) Hong Kong (ii) Greater China Region (iii) International		161 5 4	Regular update
8c	❖ Database on Public Lectures by CUHK – involving secondary school students, practitioners in the industry, people in the community		130 (as on KTO website)	Regular update

Note: \* New Performance Indicators adopted in 2010/11

## Annex 3

Number of PATENTS FILED in 2010 -11 with breakdown

Country	Faculty of Engineering				Faculty of Medicine										Faculty of Science		Research Units		Total
	CSE	ELE	IEG	MAE	ACP	SBS	CPY	IIR	MEDT	OHNS	ORT	OVS	SPH	SUR	CHM	SLS	INC	IPE	
PCT	1	2	2	2		2	3		3			1							16
US	4	10	11	4		3	17	2	4	2	1	2	1	1	3	1	3		69
Brazil											1								1
China	1	6	2	3	1	1	1	1											16
Europe		1				1	1				1								4
Hong Kong		3	1				7		1		2					5			19
Japan		1					2				1								4
Korea		2	1								1								4
Macau	1		1	1					1		1					2		1	8
Singapore					1		1												2
Taiwan							2		3										5
Total	7	25	18	10	2	7	34	3	12	2	8	3	1	1	3	8	3	1	148

Faculty of Engineering

CSE	Dept of Computer Science and Engineering
ELE	Dept of Electronic Engineering
IEG	Dept of Information Engineering
MAE	Dept of Mechanical and Automation Engineering

Faculty of Medicine

ACP	Dept of Anatomical and Cellular Pathology
SBS	School of Biomedical Sciences
CPY	Dept of Chemical Pathology
IIR	Dept of Imaging and Interventional Radiology
MEDT	Dept of Medicine and Therapeutics
OHNS	Dept of Otorhinolaryngology, Head and Neck Surgery
ORT	Dept of Orthopaedics and Traumatology
OVS	Dept of Ophthalmology and Visual Sciences
SPH	School of Public Health and Primary Care
SUR	Dept of Surgery

Faculty of Science

CHM	Dept of Chemistry
SLS	School of Life Sciences

Research Units

INC	Institute of Network Coding
IPE	Institute of Precision Engineering

Number of PATENTS GRANTED in 2010-11 with breakdown

Country	Faculty of Engineering				Faculty of Medicine					Faculty of Science	Research Unit	Total
	Dept of Computer Science & Engineering	Dept of Electronic Engineering	Dept of Information Engineering	Dept of Mechanical & Automation Engineering	School of Biomedical Sciences	Dept of Chemical Pathology	Dept of Medicine & Therapeutics	Dept of Orthopaedics and Traumatology	School of Pharmacy	School of Life Sciences	Institute of Precision Engineering	
US		4	4	1		3	1	1	1	6		21
Australia						1						1
China		3		2		3	2				2	12
Eurasia						1						1
Hong Kong	2	1	1	1	1	1	4		1	2	1	15
India							1					1
Japan						1						1
Korea		3		1								4
Macau	1		1	1			1			2	1	7
Malaysia									1			1
Singapore	1					1		1				3
Taiwan						1						1
<b>Total</b>	<b>4</b>	<b>11</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>12</b>	<b>9</b>	<b>2</b>	<b>3</b>	<b>10</b>	<b>4</b>	<b>68</b>

**Number of LICENSES GRANTED  
in 2010-11 with breakdown**

Type	Faculty of Engineering					Faculty of Medicine			Faculty of Science	Institute of Chinese Studies	Hong Kong Institute of Educational Research	Communications and Public Relations Office	Total
	Dept of Computer Science & Engineering	Dept of Electronic Engineering	Dept of Information Engineering	Dept of Mechanical & Automation Engineering	Dept of Systems Engineering and Engineering Management	Dept of Chemical Pathology	Dept of Orthopaedics and Traumatology	Dept of Otorhinolaryngology, Head and Neck Surgery	School of Life Sciences	Research Centre for Chinese Ancient Texts	Centre for the Advancement of Information Technology in Education	Audio-Visual Division	
Exclusive	2					2	2	1	1		1	1	10
Non-exclusive	1		1				1						3
End User Licence	4	2		1	4					2			13
<b>Total</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>26</b>



## Knowledge Transfer Project Fund Project Summary List 2009-10

### Social Care

#### Health Concerns

- 1) Teaching Patient Safety to Healthcare Workers (KTP091126F06)
- 2) Training programs of Geriatric-orthopaedics – with special emphasis on fall and fragility fracture prevention in the community (KTP091126F08) **Completed**
- 3) Technical knowledge transfer of evidence-based health and medical humanitarian assistance to field based practitioners in emergency and crisis (KTP091126F09)
- 4) Internet-delivered Course on Active Living for Health in Secondary Schools (KTP091126F03)
- 5) Virtual Trainer for Exercise and Health Promotion: Transferring Knowledge to Practice (KTP091126F02)
- 6) Fight against Cardiovascular Disease- An online Knowledge Transfer Project (KTP091126F07) **Completed**
- 7) AMPOULE – Online Drug Information Platform for the Public in Hong Kong (KTP091126F10) **Completed**

#### City Planning and Environment

- 8) CUHK Knowledge Centre for Climate, Urban Climate, Sustainable City Planning and Building Environmental Design (KTP091126F18) **Completed**

#### School Reform

- 9) Creating and Sustaining "Communities of Practice" for Physical Education Teacher's Continuing Professional Development (CPD) (KTP091126F04)
- 10) Development of hardware modules for DNA amplification for New Senior Secondary School (NSS) Biology teaching and learning (KTP091126F15)
- 11) Development of reagent kits for biotechnology teaching through forensic investigations (KTP091126F16)
- 12) Using the education resources in China Digital Science and Technology Museum (CDSTM) to promote science education and literacy in Hong Kong (KTP091126F17) **Completed**

#### Arts and Culture

- 13) Kunqu and Cantonese Opera Education and Promotion Project (KTP091126F01)
- 14) Database on History of Modern Chinese Thoughts (1830-1930) (KTP090126F01)

### Nurturing the Knowledge Transfer Spirit and Capacity

#### Industry Links

- 15) CUHK Open Innovation Network (COIN) (KTP091126F05) **Completed**

#### Entrepreneurship

- 16) CUHK Programmes and Fellowship of Business Venturing (KTP091126F11) **Completed**
- 17) Entrepreneurial Impact of CUHK Alumni in Hong Kong (KTP091126F12) **Completed**
- 18) Vice Chancellor's Cup of Student Entrepreneurship (VCCE) 2009-10 (KTP091126F13) **Completed**

## Knowledge Transfer Project Fund Project Summary List 2010-11

### Social Care

#### Raising Professional Standards

- 1) Mental Training for Hong Kong Fencers: From Lab Findings to Practice & Competitions (KTP110121F18)
- 2) Public Education Program on Computer Assisted Surgery – with special theme on how “Technologies Enhancing Patient Care – 科技完美醫療” in the community – Achievements in Computer Assisted Clinical Management and Surgery developed in CUHK (KTP110121F25)
- 3) Learning Custom Product Design through Owner-Designer Role-Playing (KTP110121F21)
- 4) Dissemination of “Best Practice” in Assessment and Training in Industrial / Organizational Psychology (KTP110121F55)

#### Health Concerns

- 5) Promoting Men's Health in the IT Era (KTP110121F26)
- 6) Overcoming insomnia: transferring knowledge to practice (KTP110121F36)
- 7) Empowering caregivers to improve dysphagia management (KTP110121F40)
- 8) Transferring nutrition knowledge into practice by developing a website for public access (KTP110121F48)
- 9) Development of mobile phone “App” to teach acupuncture practice for student and community people (KTP110121F49)
- 10) OPAL (Outreach Program TO Raise Awareness And Improve Lifestyles) For Prevention of Chronic Diseases (KTP110121F57)
- 11) Virtual Dietician at 1 touch – Develop an Apple application on the 1<sup>st</sup> Hong Kong commonly used food and ingredient database for portable handheld users (KTP110121F62)

#### Quality of Life

- 12) The Rights of Migrant Women Sex workers In Hong Kong (KTP110121F23)
- 13) Cognitive Behavioural Training (CBT) for family caregivers of dementia - 3<sup>rd</sup> phase (KTP110121F28)
- 14) Improving the quality of end of life care for old age home residents with end stage non-cancer chronic diseases (KTP110121F33)

#### City Planning and Environment

- 15) An electronic tree identification encyclopedia (KTP110121F53)
- 16) Urban Climatology for Tropical Regions (KTP110121F56)

#### Arts and Culture

- 17) Hong Kong Literary Field Trips: Route Planning and On-the-spot Appreciation Project (KTP110121F01)
- 18) Method as Knowledge: Documenting and Investigating Musics of Hong Kong (I) (KTP110121F02)
- 19) New perspectives on Ancient Civilizations (KTP110121F04)
- 20) Learning from Neighbourhood Tourism in Sheung Wan, Hong Kong (KTP110121F06)

#### Support for School Reform

- 21) Building and Sustaining a Reading and Writing Teacher Community for Teachers' Continuing Professional Development (KTP110121F15)
- 22) Developing young short story writers in secondary schools in Hong Kong – A university-school partnership programme (KTP110121F17)

### Nurturing the Knowledge Transfer Spirit and Capacity

#### Entrepreneurship

- 23) CUHK Alumni Entrepreneur Network (KTP110121F13)
- 24) Global Entrepreneurship Week Hong Kong (GEW Hong Kong) (KTP110121F14)

#### Industry Links



- 25) Database for Industrial Contacts (KTP110121F22)



## UGC Funded Projects


### Knowledge Transfer Project Fund (KTPF) 2009 – 10: Project Details

<b>Total number of projects funded: 18</b>
<b>Number of projects completed: 9</b>
<b>Number of projects in progress: 9</b>



### PROJECTS COMPLETED

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
1	CUHK Open Innovation Network (COIN) (KTP091126F05) 	Centre for Innovation and Technology	❖ Companies in the industry	42 companies	❖ Companies in the industry	42 companies	❖ 15 Recruitment Talks conducted for companies with 425 students attended ❖ 4 companies visited CUHK Laboratories ❖ Visit to 7 member companies	❖ Enable the member companies to keep pace with the technological development worldwide & to stay competitive in the knowledge-based economy
2	Fight against Cardiovascular Disease- An online Knowledge Transfer Project (KTP091126F07) 	The Nethersole School of Nursing	❖ General public	20,839	❖ Nursing students in CUHK ❖ Members of self-help groups, such as Care for your Heart and Hong Kong Heart Group	800 360	❖ 15 pieces of theme related articles written by doctors & nurses to share their health knowledge & experience with the public ❖ 19 video clips filmed by a celebrity, professors, doctors, and nurse in various specialties now on the website ❖ 15 Q&As from email correspondence on the website	❖ Direct Knowledge transfer and dissemination through a press conference and on-site health check for the public held to launch the project
			❖ Health Care Professionals (Registered Nurse & nursing students)	29 <b>Total: 20,868</b>	❖ Supported from health-care related companies	1,900	❖ 4 sets of tests with answers developed for the public to test their health knowledge ❖ 2 computer games on the website ❖ Information on 33 related health promotion activities in the community placed on the website	

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
3	Training programs of Geriatric-orthopaedics – with special emphasis on fall and fragility fracture prevention in the community (KTP091126F08)  	Orthopaedics and Traumatology	❖ Community elderly, geri-orthopaedic professionals, orthopaedicspecialists, geriatricians, familyphysicians, rehabilitation professionals	1,074	❖ Professionals of health care and elderly care	3	❖ 6 workshops held with participants of 228 ❖ 2 educational talks with participants of 635 ❖ “International Symposium on Geri-orthopaedic Fracture Management” held on 11 Sep, 2010 with participants of 211 ❖ 1,000 copies of the proceedings printed & distributed	❖ The epidemiology of fall & fracture in the elderly, causes & consequences of osteoporosis, home environmental hazard & modification, and appropriate exercises, which are all essential information and knowledge for the elderly to maintain their health and living quality had been widely spread to the general public  ❖ Excellent response & feedback from the Symposium & related workshops
4	AMPOULE – Online Drug Information Platform for the Public in Hong Kong (KTP091126F10)  	School of Pharmacy	❖ General public	Over 5,000 estimated	NA	NA	❖ 121 emails from the general public ❖ The new novel web-based platform “PHARM” focusing on the drug-related problems launched on 9 April, 2010 ❖ “CARxE” (Collaborative Ambulatory Drug Resources for Elderly), a sub-branch of AMPOULE was set-up for drug safety & drug information for the geriatric population ❖ 2 public lectures on 17 April & 19 June, 2010 held ❖ 5,175 visits & 22,637 page views were made by the public where users are from Hong Kong (88%), China (4.2%), Macau (1.5%), US (1.2%) & Canada (1.1%). ❖ 96% of attendees at the public lecture found it was very useful in enhancing their knowledge on medication safety ❖ 100% attendees felt that the content of the lecture was clear	❖ Positive comments & feedback from the websites & public lectures via the on-line survey and evaluation forms  ❖ Facebook & Twitter accounts were set up for AMPOULE

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
5	CUHK Programmes and Fellowship of Business Venturing (KTP091126F11)	Centre for Entrepreneurship	❖ Current CUHK undergraduate and postgraduate students, members of the business community	700	NA	NA	<ul style="list-style-type: none"> <li>❖ 3 workshops organized and one to be conducted</li> <li>❖ A boot camp on entrepreneurship to be held in early September</li> <li>❖ A field trip to Shenzhen with the help of the new Shenzhen graduate school to be organized</li> <li>❖ The internship programme with startups will begin afterwards</li> </ul>	❖ To foster a culture of entrepreneurship among all the constituencies on campus (students, faculty and administrative staff) so that they will take a positive stance towards business venturing and knowledge transfer
6	Entrepreneurial Impact of CUHK Alumni in Hong Kong (KTP091126F12)  	Centre for Entrepreneurship	❖ CUHK alumni and student entrepreneurs	7,000	NA	NA	<ul style="list-style-type: none"> <li>❖ Pre-survey event: Forum on Entrepreneurship (members from over 80 CUHK units invited to attend)</li> <li>❖ Alumni Entrepreneur Mentorship program: 70 CUHK entrepreneurial alumni were willing to act as mentors</li> <li>❖ Entrepreneurial Sprit &amp; Angel Investment Incentives for CUHK Alumni</li> <li>❖ Permanent website for CUHK Alumni Entrepreneurs</li> </ul>	<ul style="list-style-type: none"> <li>❖ 50,000 alumni were reached through the On-line Survey (76,400 printed version questionnaires were sent to CUHK alumni)</li> <li>❖ (Over 1,000 completed survey received, results were analyzed and ready on-line)</li> </ul>



#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
7	Vice Chancellor's Cup of Student Entrepreneurship (VCCE) 2009-10 (KTP091126F13) 	Centre for Entrepreneurship	❖ CUHK undergraduate and postgraduate students	60	NA	NA	❖ CUHK has been the Champion Team and scooped the 1 <sup>st</sup> & 2 <sup>nd</sup> Runner up prizes	❖ VCCE is a CUHK-wide business plan competition and important to stimulate knowledge transfer & entrepreneurship among CUHK students
8	Using the education resources in China Digital Science and Technology Museum (CDSTM) to promote science education and literacy in Hong Kong (KTP091126F17) 	Centre for Promoting Science Education	❖ Secondary school students and teachers	Data to be collected	❖ National Tsing Hua University  ❖ National Taiwan University	1  1	❖ Joint seminar with Taiwan Universities on high school science education promoting the use of CDSTM resources & nanotechnology education  ❖ Joint seminar with EDB & CDSTM representatives to school teachers to disseminate good practices on the use of CDSTM resources & its relations to science education in Hong Kong. Teachers who participated in the trial runs will be invited to share their experience  ❖ Meeting with CDSTM members & Education Bureau for the use of the CDSTM in the NSS science curricula  ❖ Statistical data from the questionnaires & small focus group interview to be collected	❖ Qualitative feedback reflecting the effectiveness of the seminars & trial runs



## Annex 6.2



[illegible]

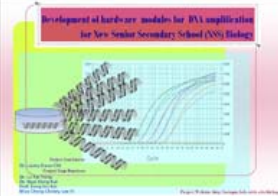


## UGC Funded Projects Knowledge Transfer Project Fund (KTPF) 2009 – 10: Project Details

Total number of projects funded: 18
Number of projects completed: 9
Number of projects in progress: 9

### PROJECTS IN PROGRESS

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
1	Kunqu and Cantonese Opera Education and Promotion Project (KTP091126F01) 	Arts / Chinese Language and Literature	❖ Secondary school teachers & students	2,800 from 11 secondary schools	❖ Professional performers in Cantonese Opera	8	❖ No. of audience: 4,000 ❖ 200-300 DVDs to be distributed to secondary schools as teaching kits in July, 2011 ❖ Website enhanced to bilingual versions; video clips of events highlights to be uploaded ❖ Questionnaires were collected after the event "Spirit in Music: Colloquium on <i>Xilou</i> in Kunqu and Cantonese Opera". Positive comments and encouragements were overwhelming.	❖ Distinguished performers and senior researchers of Kunqu and Cantonese opera, as well as celebrities like Prof. Kenneth Hsien-yung Pai (白先勇) and Ms. Pak Suet Sin (白雪仙), generously supported the project and cast in the DVD, which is an unprecedented effort of this kind. This DVD will be a useful tool arousing students' interests in not only Kunqu and Cantonese opera, but in traditional Chinese culture in general
					❖ Professional performers in Kunqu Opera (Shanghai Kunqu Opera Troupe)	19		
			❖ General public	600	❖ Universities in HK	3		
			❖ University communities	600	❖ Researchers of Kunqu & Cantonese Opera	3		
2	Virtual Trainer for Exercise and Health Promotion: Transferring Knowledge to Practice (KTP091126F02) 	Education / Sports Science and Physical Education	❖ General public	1000 free users, other paid users	❖ Hong Kong Police Force (initial meetings)	1	❖ Data to be collected ❖ The VT website development is ~70% completed ❖ Publicity materials (bookmarks, banners, posters, Youtube videos) and incentive prizes (T-shirts, ropes, calculators) are ready for promotion or distribution	❖ HKPF & YMCA indicated their interests in the website and agree to promote VT within the organizations upon the completion of the website
					❖ Chinese YMCA	1		

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
3	Internet-delivered Course on Active Living for Health in Secondary Schools (KTP091126F03)	Education / Sports Science and Physical Education	❖ Students and parents	3,000	NA	NA	❖ On-line course materials have been drafted  ❖ First workshop & seminar will be conducted for students & parents by the end of 2010	❖ A group interview will be conducted with a small group of secondary school students to make the course contents suitable & attractive to the target group
4	Creating and Sustaining "Communities of Practice" for Physical Education Teacher's Continuing Professional Development (CPD) (KTP091126F04)  	Education / Sports Science and Physical Education	❖ In-service teachers of PE	108	NA	NA	❖ 4 meetings with 60 pre-service teachers & 1 workshop for in-service teachers have been conducted  ❖ 3 workshops held for pre-service teachers  ❖ 60 pre-service teachers have been successfully recruited  ❖ 1 seminar held for about 100 PE teachers in December, 2010  ❖ 1 CPD website has been created & revised. 6 pre-service teachers & some in-service teachers have been using the website for teaching & learning	❖ 8 individual interviews conducted with 8 primary & secondary teachers to examine their perceptions towards on-line continuing professional development practice based on Fullan's framework proposed in this project.
			❖ Pre-service teachers of PE	60				
5	Teaching Patient Safety to Healthcare Workers (KTP091126F06)	Medicine / Anaesthesia and Intensive Care Medicine	❖ Healthcare Workers	9,000	Hospital Authority	1	❖ Course Manual being drafted	❖ Details of dissemination process (delivery of courses to healthcare workers) discussed with Hospital Authority colleagues at a cluster level
6	Technical knowledge transfer of evidence-based health and medical humanitarian assistance to field based practitioners in emergency and crisis (KTP091126F09)  	Medicine / School of Public Health and Primary Care	❖ Field based practitioners	180	❖ Hong Kong Red Cross  ❖ Humanitarian Initiative, School of Public Health and Primary Care, CUHK	1  1	❖ 4 Health & Medical Humanitarian Assistances Lecture had been held from 23 March – 21 June, 2010	❖ Community links was setup for potential health interventions for health education programs to improve overall well-being & disaster preparedness of the community  ❖ 2 CUHK SPHPC PhD students had participated in field practicum placements in Health Needs Assessment held in Baoshan Village, Yulong, Lijiang China from 31 May – 4 June, 2010  ❖ 2 focus groups interviews were conducted. Physical, psychological & social health needs were found in the assessment

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No. of beneficiaries served	Partnership	No. of partners	Quantitative indicators achieved	Qualitative indicators achieved
7	Development of hardware modules for DNA amplification for New Senior Secondary School (NSS) Biology teaching and learning (KTP091126F15) 	Science / Biochemistry	❖ Secondary school teachers and students	58	❖ CUHK TWGHs Community College  ❖ Department of Biochemistry, CUHK	1  1	❖ 6 prototypes made  ❖ Repeated testing carried out and developed for improved stability & reliability of the hardware  ❖ Another 2 models developed which can accommodate 6 & 10 samples and are more compact & reproducible for final deployment  ❖ 3 workshops held for students to improve their study skills & understand the application of polymerase reaction on DNA amplification	❖ A successful hardware module for the teaching and learning of biotechnology knowledge for the education sector  ❖ The transfer of technological knowhow in biochemistry & molecular biology to develop hardware for education  ❖ Students' understanding of principles of DNA technologies and the ability to handle a small electronic apparatus
8	Development of reagent kits for biotechnology teaching through forensic investigations (KTP091126F16) 	Science / Biochemistry	❖ Secondary school and university teachers and students	42	❖ Tang Ngan Centre for General Science Education, CUHK  ❖ Faculty of Education, CUHK  ❖ Faculty of Engineering, CUHK	1  1  1	❖ Developing three assays (DNA fingerprint assay, HbA1C testing & PCR kit) for the teaching & learning of biotechnology  ❖ 2 workshops held on 15 July & 4 September 2010 for secondary students to improve their understanding of forensic science	❖ A successful model for the teaching and learning of biotechnology knowledge for the education sector  ❖ The transfer of technological knowhow in biochemistry & molecular biology to develop experimental kits for education  ❖ Students' understanding of principles of biotechnologies and applications through crime scene investigation  ❖ Students' critical thinking & analytical ability strengthened
9	Database on History of Modern Chinese Thoughts (1830-1930) (KTP091216F01) 	Research Centre for Contemporary Chinese Culture	❖ General public (through research and educational institutes)	Data to be collected	❖ National Chengchi University, Taiwan	1	❖ 13 millions words of historical texts have been proof-read as of May, 2011	❖ The search function has been developed  ❖ A production system would be acquired for testing the functions to ensure the smooth running when it is open to public access in the future  ❖ User interface being modified incessantly to meet the new developments




## UGC Funded Projects


## Knowledge Transfer Project Fund (KTPF) 2010 – 11: Project Details

These projects have just started for 3 months. Some of the Performance Indicators have been achieved while many are targets for the time being.


## Social Care


## Raising Professional Standards


#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
1	Mental Training for Hong Kong Fencers: From Lab Findings to Practice & Competitions (KTP110121F18) 	Education/ Sports Sciences and Physical Education	<ul style="list-style-type: none"> <li>❖ Hong Kong Fencing Team Members</li> <li>❖ Potential local sports participants/ citizens</li> </ul>	More than 45  ~ 300  <b>Total: ~ 345</b>	<ul style="list-style-type: none"> <li>❖ Hong Kong Sports Institute</li> <li>❖ Hong Kong Olympic Team</li> </ul>	~ 300  ~ 300  <b>Total: ~ 600</b>	<ul style="list-style-type: none"> <li>❖ No. of medals/ awards won by the Athletes</li> <li>❖ No. of weekly exercises that the participants engaged in</li> </ul>	<ul style="list-style-type: none"> <li>❖ Increase self-confidence &amp; self-motivation of the Athletes</li> </ul>
2	Learning Custom Product Design through Owner-Designer Role-Playing (KTP110121F21)	Engineering/ Information Engineering	<ul style="list-style-type: none"> <li>❖ Young engineers /designers in relevant social enterprises</li> <li>❖ Young engineers /designers in NGOs</li> <li>❖ Young engineers /designers in SMEs</li> </ul>	40  40  40  <b>Total: 120</b>	<ul style="list-style-type: none"> <li>❖ IEEE Young Engineers Division</li> <li>❖ Hong Kong Science and Technology Park</li> </ul>	1  1	<ul style="list-style-type: none"> <li>❖ No. of participants (100)</li> <li>❖ Design cases (15)</li> <li>❖ Feedback from participating organizations (20)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Feedback from the employers of the participants in terms of satisfaction from the training program (whether the participants showing improvement on their skills and idea in designing product)</li> </ul>
3	Dissemination of "Best Practice" in Assessment and Training in Industrial/Organizational Psychology (KTP110121F55)	Social Science/ Psychology	<ul style="list-style-type: none"> <li>❖ HR professionals in the Business Community</li> <li>❖ Job applicants &amp; incumbents who will benefiting from the training of the corporate HR personnel</li> </ul>	1,000  1,000	<ul style="list-style-type: none"> <li>❖ Members of DIOP (The Division of I/O Psychology of the HK Psychological Society)</li> <li>❖ Members of HK Institute for Human Resources Management</li> </ul>	80  4,700  <b>Total: 4,780</b>	<ul style="list-style-type: none"> <li>❖ Pre-post testing of knowledge of testing among those trained in the workshops (An increase of at least 2 points on a 5 point Likert Scale in the "post" measurement)</li> <li>❖ No. of hits no the website over the course of the project (500)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Stated opinions of those trained that the training was valuable</li> </ul>

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
4	Public Education Program on Computer Assisted Surgery – with special theme on how "Technologies Enhancing Patient Care-科技完美醫療" in the community - Achievements in Computer Assisted Clinical Management and Surgery developed in CUHK (KTP110121F25)  	Medicine/ Orthopaedics and Traumatology	❖ Secondary school students and general public		❖ Hong Kong Science Museum  ❖ Stryker Pacific Ltd.  ❖ NDI Asia Pacific  ❖ Beijing JX Digital Wave Co., Ltd	1  3  1  1  <b>Total: 5</b>	❖ 3 meetings held with Hong Kong Science Museum (HKSM) with detailed schedules and rundown confirmed  ❖ Opening ceremony to be held on 30 September, 2011  ❖ Education lectures on different themes relating to CAS to be held on 10 September, 2011  ❖ Exhibition to be held on 10-11 September, 2011  ❖ 3-month poster exhibition to be held from 10 September – 9 December, 2011	NA

## Health Concerns


#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
5	Promoting Men's Health in the IT Era (KTP110121F26)  	Medicine/ Surgery	❖ Male aged from 30 to 70  ❖ Females partners of targeted male/ interested in Men's health  ❖ Medical professional & allied health workers	3,000  500  200  <b>Total: 3,700</b>	❖ Pharmaceutical Companies  ❖ Other internal departments interested in men's health  ❖ Professional medical groups interested in promoting men's health  ❖ Other professional groups (other	3  3  3  3	❖ Feature article in Headline Newspaper on every Wednesday (on-going)  ❖ No. of hits on website (5,000)  ❖ No. of mobile application being downloaded (2,000)  ❖ No. of on-line enquiries received about health (200)  ❖ No. of promotions which are from either self-initiated or invited by other professional groups	❖ Feedback from the survey regarding the knowledge of common prostatic problems.

					fields e.g. accountants, Insurance related workers etc) interested in promoting men's health issue to their members	<b>Total: 12</b>		
6	<p>Overcoming insomnia: transferring knowledge to practice (KTP110121F36)</p> 	The Nethersole School of Nursing	<ul style="list-style-type: none"> <li>❖ General public with problems of insomnia who are internet users (Estimation: 12% insomniacs*3. 92 million internet user in HK)</li> <li>❖ Health &amp; social care workers practicing in the elderly community center involved</li> <li>❖ Older people who have insomnia and will participate in the training activities on cognitive-behavioral strategies &amp; auricular therapy as organized by the trained health &amp; social care professionals in the elderly community center</li> </ul>	<p>470,400</p> <p>100</p> <p>900</p> <p><b>Total: 471,400</b></p>	<ul style="list-style-type: none"> <li>❖ Hong Kong Sheng Kung Hui Welfare Council (District Elderly Services)</li> <li>❖ Hong Kong Young Women's Christian Association (District Elderly Services &amp; Elderly Continuing Education)</li> <li>❖ The Neighbourhood Advice-Action Council</li> <li>❖ Shatin Rhenish Neighbourhood Elderly Centre</li> <li>❖ Hong Kong Lutheran Social Service (District Elderly Services)</li> <li>❖ Senior Association of Greater Edmonton (District Elderly Services)</li> <li>❖ Jorden Valley Kai Fong</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>Total: 9</b></p>	<ul style="list-style-type: none"> <li>❖ No. of visitors to the "SWEET DREAMS", the on-line system (30,000)</li> <li>❖ No. of visitors who received individualized advice on handling insomnia on the "SWEET DREAMS" (200)</li> <li>❖ Level of satisfaction &amp; feedbacks from the visitors on the effectiveness of the "SWEET DREAMS" in helping them to cope with insomnia</li> <li>❖ No. of professional health &amp; social care workers participating in the train-the-trainer workshops (80)</li> <li>❖ Level of satisfaction &amp; feedback from the health &amp; social care workers in the train-the-trainer workshops</li> <li>❖ No. of insomnia workshops conducted by the trained health &amp; social care workers to the elderly &amp; the no. of elderly participating in the workshop (Training workshops: 10; No. of elderly: 160)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Visitors' written comments on the survey indicate that the "SWEET DREAMS" provides useful information &amp; support to help them to overcome insomnia</li> <li>❖ Health &amp; social care workers' written comments on the evaluation form &amp; their perception on the train-the-trainer workshop as solicited from the focus group interview indicate that the workshop is effective &amp; useful in helping them to grasp the techniques of using cognitive-behavioral strategies &amp; auricular therapy in helping the elderly as useful to help them to overcome insomnia</li> <li>❖ The workshops being rated by the elderly as useful to help them to overcome insomnia</li> </ul>

					Welfare Association Choi Ha Social Centre for the Elderly			
					❖ Chinese YMCA of Hong Kong (District Elderly Services)			
					❖ ELCHK Ma On Shan District Elderly Community Centre			
7	Empowering caregivers to improve dysphagia management (KTP110121F40)	Medicine/ Otorhinolaryngology, Head and Neck Surgery	<ul style="list-style-type: none"> <li>❖ Nursing home staff caring for patients with swallowing disorders</li> <li>❖ Family of residents</li> <li>❖ Nursing home residents with swallowing disorders</li> </ul>	75-100  1,000 – 1,500  500  <b>Total: 1,575 – 2,100</b>	<ul style="list-style-type: none"> <li>❖ Community Geriatric Assessment Team (CGAT)</li> <li>❖ Nursing homes in New Territories East</li> <li>❖ New Territories East Cluster Hospital Authority Speech Therapy Departments</li> </ul>	1  5  1  <b>Total: 7</b>	<ul style="list-style-type: none"> <li>❖ Test result from the nursing home staff for both MC questions &amp; short-answer questions (More than 29% improvements in test score)</li> <li>❖ Data on hospital admission regarding swallowing disorder related medical consequences (Around 20% reduction in related admissions)</li> <li>❖ Number of nursing home patient visiting NTEC speech (Around 80% reduction on speech therapy clinic)</li> </ul>	❖ Improved staff awareness in swallowing disorder consequences & safe feeding strategies from the questionnaire results
8	Transferring nutrition knowledge into practice by developing a website for public access (KTP110121F48)	Science/ School of Life Sciences	❖ General public	6,000,000	NA	NA	No. of visitors of the website (3,000 visits in 5 months)	❖ Increase nutrition knowledge of the public, enable the general population to make informed choices for healthy diet and improvement on eating behavior
								
9	Development of mobile phone "App" to teach acupuncture practice for student and community people (KTP110121F49)	Science/ School of Chinese Medicine	❖ Chinese Medicine students (HK, China & beyond)	1,000 (HK) 100,000 (overseas)  10,000 (HK)	NA	NA	❖ No. of applications downloaded reports who have from the Applications Service Providers (More than 1,000 download records)	❖ Feedbacks from academics, practitioners & browsers & user comments in the service providers' websites by using monthly & quarterly assessment


## Annex 6.4

			<ul style="list-style-type: none"> <li>❖ Western medical &amp; allied health practitioners be interested in acupuncture (HK &amp; beyond)</li> <li>❖ The HK community in HK &amp; beyond</li> </ul>	100,000 (overseas)  NA  <b>Total: 11,000 (HK) 200,000 (overseas) &amp; community</b>			<ul style="list-style-type: none"> <li>❖ Rating from users after utilizing for 1 month in questionnaires (High rating, with 5 marks or above; full marks are 10)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Qualitative comments from users after utilizing for 1 month in questionnaires (Good comments from academics, practitioner &amp; users on the service providers' website)</li> </ul>
10	OPAL (Outreach Program To Raise Awareness And Improve Lifestyles) For Prevention of Chronic Diseases (KTP110121F57)	Hong Kong Institute of Diabetes and Obesity	<ul style="list-style-type: none"> <li>❖ Employees aged from 35 -55</li> <li>❖ Women at high risk for diabetes (e.g. those with gestational diabetes &amp; family history)</li> <li>❖ Subjects with risk factors for diabetes (e.g. positive family history, hypertension, heart disease, obesity, middle aged men with metabolic syndrome)</li> <li>❖ Subjects from low socioeconomic class</li> </ul>	4,000  1,000  1,000  2,000  <b>Total: 8,000</b>	<ul style="list-style-type: none"> <li>❖ District Board &amp; Public Housing Estates</li> <li>❖ Rotary Club or Lion's club</li> <li>❖ Manning Pharmacy</li> <li>❖ Companies</li> <li>❖ Work unions</li> <li>❖ GPs, HA &amp; community-based clinics</li> </ul>	500  1,000  2,000  1,000  500  4,000  <b>Total: 9,000</b>	<ul style="list-style-type: none"> <li>❖ No. of high risks subjects identified (2,400)</li> <li>❖ No. of high risk subjects motivated to lifestyle changing (1,000)</li> <li>❖ No. of high risk subjects motivated to seek medical advice (1,000)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Reduction in body weight &amp; cessation in smoking</li> <li>❖ Follow up with GPs for formal testing</li> </ul>

11	<p>Virtual Dietician at 1 touch – Develop an Apple application on the 1st Hong Kong commonly used food and ingredient database for portable handheld users (KTP110121F62)</p> 	Science/ Food Research Centre	<ul style="list-style-type: none"> <li>❖ General public</li> <li>❖ Food industry</li> <li>❖ Health related personnel (medical doctors, dieticians, nutritionists)</li> <li>❖ Centre of Food Safety</li> <li>❖ Food &amp; Environmental Health Department</li> </ul>	<p>100,000</p> <p>500</p> <p>1,000</p> <p>100</p> <p>60</p> <p><b>Total: 101,660</b></p>	<ul style="list-style-type: none"> <li>❖ Centre of Food Safety</li> <li>❖ Food &amp; Environment Health Department</li> <li>❖ Food Industry</li> <li>❖ Centre of Nutritional Studies</li> </ul>	<p>1</p> <p>1</p> <p>5</p> <p>1</p> <p><b>Total: 8</b></p>	<ul style="list-style-type: none"> <li>❖ No. of participants in the Technical Seminars</li> <li>❖ No. of hit rates &amp; download rates of the application</li> <li>❖ Quantitative feedbacks from the users</li> </ul>	❖ Qualitative feedbacks from the users
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## Nurturing the Knowledge Transfer Spirit and Capacity


### Entrepreneurship

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
12	<p>CUHK Alumni Entrepreneur Network (KTP110121F13)</p> 	Centre for Entrepreneurship	<ul style="list-style-type: none"> <li>❖ CUHK students (undergraduates)</li> <li>❖ CUHK students (postgraduates)</li> <li>❖ CUHK alumni entrepreneurs (responded to our census)</li> <li>❖ CUHK fresh alumni</li> </ul>	<p>11,000</p> <p>~10,000</p> <p>80</p> <p>3,000</p> <p><b>Total: 24,080</b></p>	<ul style="list-style-type: none"> <li>❖ CUHK alumni entrepreneurs (30 out of 80 expressed their interest from an estimated population of 30,000)</li> <li>❖ HK Business Angel Network led by the Hong Kong Science &amp; Technology Park</li> </ul>	<p>30</p> <p>50</p> <p><b>Total: 80</b></p>	<ul style="list-style-type: none"> <li>❖ No. of participation from CUHK students (50)</li> <li>❖ No. of participation from CUHK fresh alumni (20)</li> <li>❖ No. of participation from CUHK alumni entrepreneurs (30)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Business venture ideas initiated with mentors advisor</li> <li>❖ Business venture plan to be implemented by alumni with mentors advisor</li> <li>❖ Close relationship between mentees &amp; mentors empowering entrepreneurial resources</li> </ul>
13	<p>Global Entrepreneurship Week Hong Kong (GEW Hong Kong) (KTP110121F14)</p>	Centre for Entrepreneurship	<ul style="list-style-type: none"> <li>❖ CUHK students (both undergraduates &amp; postgraduates) participating in the activities</li> <li>❖ CUHK entrepreneurs</li> </ul>	<p>2,000</p> <p>20</p>	<ul style="list-style-type: none"> <li>❖ Hong Kong Science &amp; Technology Park</li> <li>❖ Hong Kong Cyberport</li> <li>❖ Shenzhen</li> </ul>	<p>1</p> <p>1</p> <p>1</p>	<ul style="list-style-type: none"> <li>❖ No. of participants in the events (2,000 – 6,000)</li> <li>❖ Quantitative feedbacks from the questionnaires</li> </ul>	❖ Qualitative feedbacks from the questionnaires



			❖ Students from other universities	4,000 <b>Total: 6,020</b>	University ❖ Shenzhen Institute of Advanced Technology ❖ Hong Kong Chapters of SIFE in CUHK, HKU, PolyU & OpenU ❖ CUHK entrepreneur alumni ❖ Hong Kong Social Enterprise Challenge ❖ The Young entrepreneurs Development Council ❖ Various entrepreneurs businesses	1   1  1  1  1  <b>Total:9</b>		
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## Support for School Reform

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
14	Building and Sustaining a Reading and Writing Teacher Community for Teachers' Continuing Professional Development (KTP110121F15)  	Education/ Curriculum and Instruction	<u><b>Initially</b></u> ❖ Pre-service English teachers  ❖ In-service teachers & their colleagues  <u><b>In the long run</b></u> ❖ All English teachers in secondary school of Hong Kong  ❖ Pre-service teachers	800 – 1,000       500 – 6,000       50	❖ English teachers and their colleagues from the participating secondary schools	20 - 30	❖ No. of participants in the territory-wide seminar & the no. of registration of online professional community after the seminar  ❖ No. of hits on the web-based community  ❖ No. of teachers participating in the e-forum  ❖ No. of participants in the creative writing competition & the digital	❖ Richness and relevance of pedagogical resources on the website, usefulness of links and teacher's online response  ❖ Assessing the usefulness, relevance from teachers' comments  ❖ Observing the quality of those questions & comments posted by teachers


			❖ Secondary students in Hong Kong	-			storytelling competition	
			❖ Parents & members of the wider educational community	-				
				<b>Total: 6,000-7,000</b>				
15	Developing young short story writers in secondary schools in Hong Kong – A university-school partnership programme (KTP110121F17)	Education/ Curriculum and Instruction	❖ Form 2 students from the participating secondary schools  ❖ Form 2 English teachers from the participating secondary schools	1,400  40 <b>Total:1440</b>	❖Participating secondary schools	<b>15 (exceeding the target of 10)</b>	❖ No. of participants in workshops on basic skills of writing short stories  ❖ No. of participants in short story competition  ❖ No. of hits on website	❖ Percentages of students who change their attitude towards the learning of English writing by interviews, gauging possible attitude change  ❖ Percentages of teachers who change their attitude towards the teaching of English writing by focus groups, identifying good practices/ strategies for developing student writers

## Industry Links

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
16	Database for Industrial Contacts (KTP110121F22)	Engineering/ Centre for Innovation and Technology	❖ Members of CUHK involving in technology transfer companies in the database	More than 310	NA	NA	❖ No. of industrial contacts in database (More than 300 in the first year)	❖ Level of information sharing and usefulness of the database as a inter-departmental, university-wide initiative


## Quality of Life

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
17	The Rights of Migrant Woman Sex Workers in Hong Kong (KTP110121F23)	Law	❖ Migrant sex workers	Data to be collected	❖ Researchers in human rights, law & sociology	3	❖ No. of booklets distributed  ❖ No. of hits on the website	❖ Instigating regulatory change
18	Cognitive Behavioural Training (CBT) for family caregivers of dementia – 3rd phase (KTP110121F28)	Medicine/ Medicine and Therapeutics	❖ Family caregivers of persons with dementia and	6186	❖ Jockey Club Centre for Positive Ageing	1	❖ No. of participants in community workshops  ❖ No. of survey received after	❖ Significant effect of combined interventions (to find out the differences before & after intervention => reduction of caregiver stress)

			interested professionals		<ul style="list-style-type: none"> <li>❖ Dr. Au May-lan, Alma (Hong Kong Polytechnic University)</li> <li>❖ St. James Settlements</li> <li>❖ Hong Kong Alzheimer's Disease Association</li> <li>❖ Evangelical Lutheran Church Social Service – Hong Kong</li> </ul>	1  1  1  1  <b>Total:5</b>	the workshops (100% of the returned survey reported that most of the participants found the workshop to be satisfactory/ very satisfactory)  (100% of the returned survey reported that most of the participants found the workshop to be useful/ very useful)  ❖ No. of hits on the website	
19	Improving the quality of end of life care for old age home residents with end stage non-cancer chronic diseases (KTP110121F33)	Medicine/ Medicine and Therapeutics	<ul style="list-style-type: none"> <li>❖ Residential Care Homes for the elderly (RCHes) in Shatin and Tai Po,</li> <li>❖ Residents at the end stage of chronic diseases and their families</li> </ul>	22  660  <b>Total: 682</b>	<ul style="list-style-type: none"> <li>❖ Organizations running the RCHes</li> <li>❖ Hospital Authority: Shatin Hospital staff &amp; NTEC community outreach team</li> </ul>	14  1  <b>Total: 15</b>	<ul style="list-style-type: none"> <li>❖ No. of survey received from staff, residents &amp; relatives of residents</li> <li>❖ Changes in knowledge &amp; practice by audit</li> </ul>	<ul style="list-style-type: none"> <li>❖ Assess readiness to talk about dying, starting conversations about dying. Promote about disease progression (symptoms &amp; signs along the dying trajectory)</li> <li>❖ Address information needs: discuss options &amp; preferences regarding treatment, place of care, place of death, care plan, advanced care plan. Support patients &amp; caregivers to make informed choices &amp; decisions at the end-of-life</li> </ul>



## Arts and Culture

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
20	Hong Kong Literary Field Trips: Route Planning and On-the-spot Appreciation Project (KTP110121F01)	Arts/Chinese Language and Literature	i) <u>Forum on Literary &amp; Field Trips in CUHK</u>  Local Chinese teachers & students in secondary schools  ii) <u>Workshops for Designing Literary Field Trips in Three Major Districts</u>  Local Chinese teachers in secondary schools	259 (exceeding the quota of 250)        210 (50-70/	❖ Education Bureau	1	❖ No. of participants in Forum on Literary Field Trips in CUHK (200 – 250)  ❖ No. of participants in Workshops for Designing Literary Field Trips in Three Major Districts (150-210; 50 – 70/ workshop)  ❖ No. of CD-Roms distributed to secondary schools (523) & public library (66)	Focus group interviews:- ❖ Teachers are willing to incorporate the concept of literary field trip in their curriculum  ❖ Teachers are able to make use of the resources available in this project to tailor-make their own literary field trip  ❖ Students are more interested in the literature & culture of HK

			<p>iii) <u>CD-Rom on Hong Kong Literary Field Trips: Route Planning &amp; On-the-spot Appreciation Project</u></p> <p>To be distributed to:</p> <ul style="list-style-type: none"> <li>❖ all local secondary schools</li> <li>❖ Public libraries</li> </ul>	<p>workshop)</p> <p><b>Total: 350 – 460</b></p> <p>523</p> <p>66</p> <p><b>Total: 589</b></p>			<ul style="list-style-type: none"> <li>❖ No. of respondents to questionnaire (More than 80% recognized the objectives achieved; more than 80% think that the project is helpful)</li> <li>❖ No. of hits on the Hong Kong Literary Field Trip Resources Website</li> </ul>	
21	<p>Method as Knowledge: Documenting and Investigating Musics of Hong Kong (I) (KTP110121F02)</p> 	Arts/ Music	<ul style="list-style-type: none"> <li>❖ School Teachers</li> <li>❖ Music &amp; Arts Educators</li> <li>❖ General Public who are interested in local music / heritage</li> </ul>	<p>250</p> <p>50</p> <p>200</p> <p><b>Total: 500</b></p>	<ul style="list-style-type: none"> <li>❖ Hong Kong Arts Development Council</li> <li>❖ Hong Kong Heritage Museum</li> </ul>	<p>1</p> <p>1</p>	<ul style="list-style-type: none"> <li>❖ No. of attendance in the seminars</li> <li>❖ No. of hits on the Online Database</li> </ul>	<ul style="list-style-type: none"> <li>❖ Questionnaire evaluation on attendees (All completed questionnaires ranked Very Good/ Excellent on the quality of the learning experience &amp; overall rating of the lecture)</li> <li>❖ Peer Review by Guest Lecturers (Written feedback by lecturers/presenters) (Open-ended comments indicated that the participants found the experience to be thought-provoking &amp; informative)</li> </ul>
22	New Perspectives on Ancient Civilizations (KTP110121F04)	Art/ History	<ul style="list-style-type: none"> <li>❖ Middle school teachers and general public</li> </ul>	300	<ul style="list-style-type: none"> <li>❖ History MA Alumni Association, CUHK</li> </ul>	6	<ul style="list-style-type: none"> <li>❖ No. of surveys conducted before the workshop</li> <li>❖ No. of responses in Q&amp;A session at the end of workshop</li> <li>❖ No. of enquiries from the participants</li> </ul>	<ul style="list-style-type: none"> <li>❖ Identification of major progress in knowledge in the areas which the workshop has addressed</li> <li>❖ Level of historical interpretation</li> <li>❖ Level of teaching ability</li> </ul>
23	Learning from Neighbourhood Tourism in Sheung Wan, Hong Kong (KTP110121F06)	Art/ Anthropology	<ul style="list-style-type: none"> <li>❖ International tourists</li> <li>❖ Domestic excursionists (including school children)</li> <li>❖ Tourism industry &amp; local community</li> </ul>	<p>10,000</p> <p>8,000</p>	<ul style="list-style-type: none"> <li>❖ Traders in Sheung Wan</li> <li>❖ Experts doing research in the areas</li> <li>❖ NGOs, groups that are</li> </ul>	<p>40</p> <p>5</p> <p>5</p>	<ul style="list-style-type: none"> <li>❖ No. of people engaged in the walking tours for the pilot study</li> <li>❖ No. of survey feedbacks from participants &amp; merchants</li> <li>❖ No. of hits on the website</li> </ul>	<ul style="list-style-type: none"> <li>❖ Increase in general awareness of the Sheung Wan local community</li> <li>❖ Questionnaire survey &amp; focus group discussion among participants</li> </ul>

				(cultural dimension)  <b>Total: 18,000</b>	interested in preserving heritage & culture, and/or Hong Kong Tourism Board	<b>Total: 50</b>		
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## City Planning and Environment

#	Project Title (Project Code)	Fac/ Dept	Performance Indicators					
			Target Beneficiaries	No.	Partnership	No.	Quantitative indicators	Qualitative indicators
24	An electronic tree identification encyclopedia (KTP110121F53) 	Science/ School of Life Sciences	❖ Tree professionals – landscape architects, arborists, tree surveyors, landscape contractors, herbal doctors  ❖ Conservationists, ecotour guides  ❖ Biology teachers & students  ❖ General public – ecotourists, hikers, park visitors, nature lovers	600  200  3,000  100,000  <b>Total: 103,800</b>	❖ Schools (e.g. via Hong Kong School Net)  ❖ Landscaping professional	4  1  <b>Total: 5</b>	❖ No. of tree species in database (100)  ❖ Percentage accuracy in identification (95%)  ❖ No. of Commercialization	NA
25	Urban Climatology for Tropical Regions (KTP110121F56) 	Social Science/ School of Architecture	❖ Architects, urban designers, planners, surveyors and engineers professionals, etc.	60	❖ Members of Hong Kong Green Building Council (HKGBC)  ❖ Members of Ronald Lu & Partners (HK) Ltd  ❖ Master students of the City University of Hong Kong	141  67  40  <b>Total: 248</b>	❖ No. of participants in workshops & public talks  ❖ No. of hits on the website  ❖ overall rating from the workshop questionnaires Average rating from the two workshops are 3.7-4.2 & 3.8-4.6 respectively)	❖ Qualitative comments via the facebook

## Non-UGC Funded Community Projects/ Initiatives 2010 - 11

## 1. Arts and Culture

#	Fac/ Dept	Project type	Target group(s)	Performance indicator(s)	Number
1	Arts/ English	Shakespeare Festival	University students (from HK)	Number of attendees	100
			Secondary school students	Number of attendees	2,200
			General public	Number of attendees	200
			Universities in mainland China	Number of attendees	160
2	Arts/ English	Andew Parkin Drama Cup	University students & general public	Number of attendees	200
3	Research Centre for Humanities Computing	Multi-function Chinese Character Database: An Infra-structure for Future Chinese Education	All Secondary and Primary School (including teachers and senior students)	Number of attendees	Data not available
4	香港文學研究中心	「指掌步履之間——香港文學資料蒐集及作品賞覽」	All Secondary school teachers specializing in Chinese Language & Chinese Literature	Number of teachers	70
5	Research Centre for Chinese Ancient Texts	Lexicology, Syntax, Translation: An Integration of the Existing Studies for Ancient Chinese Texts	Users of the CHANT Database, scholars and researchers specializing in ancient Chinese texts, libraries, and the public	Number of participants	Data not available

## 2. Support for Schools, Teachers, Students and Parents

#	Fac/ Dept	Project type	Target group(s)	Performance indicator(s)	Number
1	Institute of Space and Earth Information Science	Supporting secondary schools using satellite images in the actual classrooms	Local Secondary Schools	Number of schools	10
				Number of teachers	20
				Number of students	250
2	Institute of Space and Earth Information Science	Visit to the Satellite Remote Sensing Ground Receiving Station	Hong Kong Institute of Surveyors	Number of participants	25
			International Higher Education Conference guests		15
			中華業餘無線電研究會		19
			2010 青少年 I.T.夏令營		150
			UC Alumni		40
			Peacemaker Fellowship		60
			Secondary schools students from Macau		70
			Faculty of Business Alumni		25
			Guest from Macau SAR Government		20
			中大地理與資源學系校友會		30
3	Science/ Physics	Invited Popular Science Talks to Public and Secondary Schools	Secondary schools and general public	Number of participants	930



#	Fac/ Dept	Project type	Target group(s)	Performance indicator(s)	Number
4	Science/ School of Life Science	Workshop on Novel accelerated test for microbial resistance of acrylic paint products	Participants from Housing Authority	Number of participants	6
			Participants from Commercial testing laboratories, paint suppliers or manufacturers ranging from manager to technicians, engineers)		22
5	Education/ Department of Curriculum and Instruction	Game-based Collaborative Inquiry Learning between Hong Kong and Beijing Primary Schools	Primary school principals and teachers	Number of schools principals	25
				Number of schools teachers	75
				Number of school students	1842
6	Education/ Department of Sports Science and Physical education	Virtual Trainer: An Innovated Approach for Exercise and Health Promotion for Secondary School Students	Hong Kong Secondary school students	Number of participants	1,000
7	Hong Kong Institute of Educational Research (HKIER)	School base staff development workshop & activities	Primary, Secondary and special education school principals and teachers	Number of participants	3,100
8	Hong Kong Institute of Educational Research (HKIER)	Spiritual Education: Learning to be Inspired and to Inspire 「心靈教育」計劃	先導及種子學校教師及學生	Number of participants	60
9	Education/ Centre for University and School Partnership	Program for the Gifted and Talented (PGT)	Primary and secondary school students and their parents	Number of participants	2,356
10	Education/ Centre for University and School Partnership	古都今昔－西安文化考察之旅	Secondary school teachers and students	Number of participants	26
11	Faculty of Engineering	Summer Engineering Academy 2010	Secondary school students	Number of participants	80
12	Centre for Innovation and Technology	RoboCup Junior Hong Kong 2011	Primary and secondary school students	Number of participants	500
13	Clinical Oncology/Hong Kong Cancer Institute State key Laboratory in Oncology in South China (CUHK)	Video eHR electronic health record, Hospital Authority	Diocesan Girls' School (DGS) students	Number of students	20
14	Medicine/ Department of Paediatrics	Public lecture "Asthma and wheezing disorders in young children"	Teachers & Parents of a kindergarten in Ma On Shan district	Number of participants	80

### 3. Community and Health Care

#### a) Community

#	Fac/ Dept	Project type	Target group(s)	Performance indicator(s)	Number
1	Education/ Department of Sports Science and Physical education	Development of Physical Fitness Tests for Pre-employment Screening of Hong Kong Police Force	Police job applicants, trainees, and incumbents	Number of participants	1,200
2	Education/ Department of Sports Science and Physical education	Physical Fitness Test for the Community of the Leisure and Cultural Services Department.	Hong Kong general residents	Number of participants	12,000
3	Hong Kong Institute of Educational Research (HKIER)	Putonghua Diagnosis Service (普通話診斷服務) & Putonghua Pronunciation Correction Service (普通話正音輔導服務)	General public	Number of people served	175
4	Social Science/ School of Journalism and Communication	Opinion Survey on public issues	General public	Number of participants	42,419
				Number of surveys	41
5	Social Science/ Department of Social Work	Clinical Supervision	TWGHs, Caritas Community Work Team and Cancer Fund	Number of participants	157

#### b) Health Care

#	Fac/ Dept	Project type	Target group(s)	Performance indicator(s)	Number
1	Science/ School of Chinese Medicine	Teaching Clinics for Chinese Medicine	General public	Number of clinics	11
2	Medicine/The Nethersole School of Nursing	The opening ceremony for launching the CVHealth website with health check session (vital signs, BMI, central obesity and blood sugar) and health consultation session.	General public	Number of participants	390
3	Medicine/School of Public Health and Primary Care	Conference on Women's Health through the Life Cycle: the Asia Perspectives	Academics, Healthcare professionals & students	Number of participants	100
4	Medicine/Department of Chemical Pathology	Development of Non-Invasive Prenatal Diagnosis for Trisomy 18 and 13 Using Massively Parallel Genomic Sequencing	<i>In vitro</i> Diagnostics companies	Number of participants	Data not available
5	Medicine/Department of Chemical Pathology	A Novel Approach for the Non-invasive Prenatal Diagnosis of Sex-linked Disorders	<i>In vitro</i> Diagnostics companies	Number of participants	Data not available

#	Fac/ Dept	Project type	Target group(s)	Performance indicator(s)	Number
6	Medicine/ Department of Medicine and Therapeutics	Cognitive Behavioural Training (CBT) for family caregivers of dementia – 1 <sup>st</sup> and 2 <sup>nd</sup> phase: an online training program supported by the funds from CUHK's Charles Kao's Walkathon	Caregivers of people with dementia	Number of participants	Targeting at having a hit rate of 3000 at the end of 2011
7	Medicine/ Department of Medicine & Therapeutics	CADENZA Symposium 2010: Age-Friendly World Cities & Environment	Participants from government units, NGOs, health/social service sectors, academia and the public	Number of participants	383
8	Medicine/ Department of Medicine & Therapeutics	International Conference – Health, Wellbeing, Competence and Aging	Eurasia-Pacific Uninet member institutions in various fields of aging and aging research	Number of participants	150
9	Medicine/ Department of Medicine & Therapeutics	Age-Friendly Cities with Cooperation & Participation – The Asian Pacific Perspective Regional Conference	Doctors, nurses, allied health professionals, social workers and health care professional	Number of participants	110
10	Medicine/ Department of Medicine & Therapeutics	International Association of Gerontology & Geriatrics (IAGG) – Institutional Care of Older Adults Conference	Administrators, nurses, physicians, and staff involved in elderly care in the institutional setting	Number of participants	170
11	Medicine/ Department of Medicine & Therapeutics	2011 Nutrition & Health Symposium	Doctors, nurses, allied health professionals, social workers and health care professional	Number of participants	223
12	Medicine/ Department of Medicine & Therapeutics	Workshop on skill for motivation interviewing in lifestyle modification for health professionals and scholars from China	Dietitians, doctors and professors	Number of participants	88
13	Medicine/ Ophthalmology & Visual Sciences	Cataract-Blindness-Free-Zone Project (Faculty members and honorary staff of DOVS volunteer to perform free cataract surgeries or collect partial fees from patients at Charity Eye Centers established in China by Project Vision Charitable Foundation.)	Patients with cataract in Hainan, Guangdong, Inner Mongolia, Shaanxi, Yunnan	Number of Charity Eye Centers established	19
				No. of free cataract surgery conducted	60,000
				No. of local doctors trained:	60
14	Medicine/ Department of Paediatrics	Public lectures and seminars	Waterloo Hill Evangelical Church	Number of participants	Data not available

Number of Applications Received	11
Number of Applications Funded	3

**Funded Projects**

SF/09/MED/010	A Peptide targeting the vasculature of gastrointestinal cancer for diagnosis and drug delivery
Project Leader	Professor CHO Chi Hin
Department	School of Biomedical Sciences
Project Abstract	The investigator had previously discovered a peptide TCP-1. This project aims to further strengthen the potential clinical applications of TCP-1 in order to attract industrial support to develop the compounds into commercial products for the diagnosis and treatment of solid tumors in the body.

SF/09/MED/011	Suturless retinal detachment surgery
Project Leader	Professor LEE Yau Wing Vincent
Department	Department of Ophthalmology and Visual Sciences
Project Abstract	This invention features a set of suturless scleral buckles and encircling band for use in connection with retinal detachment surgery. These explants are particularly configured so as to allow anchoring on eye globe without any suture.

SF/09/MED/013	Customized Enhanced Sound, Sentinel Speech
Project Leader	Professor C Andrew van Hasselt
Department	Department of Otorhinolaryngology, Head and Neck Surgery
Project Abstract	"Customized Enhanced Sound" (CE Sound) is a software development that will contribute to people who suffer from hearing loss. "Sentinel Speech" is a software application that makes use of the multimedia and touch-screen capabilities of modern mobile electronic devices to assist speech training both in the professional setting and in the home.

Number of Applications Received	18
Number of Applications Funded	8
Number of Applications Being Assessed	8
Number of Unsuccessful Applications	2

### Funded Applications

SF/10/SCI/020	The new use of divinylarene monomer for OLED applications
Project Leader	Professor HO Chun Yu
Department	Centre of Novel Functional Molecules, Department of Chemistry
Project Abstract	The project relates to the development of a catalytic process which may prepare oligo/poly(phenylene vinylene) or PPV derivatives from cheap and widely available divinylarene monomer or its derivatives. The products may be useful for subsequent electroluminescent conjugated oligo/polymers preparation, applications and simplify the processing.

SF/10/ENG/021	Spectral phase interferometric surface Plasmon resonance biosensor system with wide detection range
Project Leader	Professor HO Ho Pui
Department	Department of Electronic Engineering
Project Abstract	The project aims to develop a prototype Surface Plasmon Resonance (SPR) instrument based on a new SPR detection technology recently developed by the project investigators.

SF/10/ENG/022 (TBF/11/ENG/002)	Adaptive Video Streaming for Mobile Networks
Project Leader	Professor LEE Yiu Bun Jack
Department	Department of Information Engineering
Project Abstract	This projects builds upon the investigators' previous research results in adaptive video streaming and proposes to develop a video adaptation engine for use in mobile video streaming services such that smooth video playback can be maintained despite bandwidth fluctuations in the mobile data network.

SF/10/MED/023	Development of sprain-free sport shoe
Project Leader	Professor FONG Tik Pui Daniel
Department	Department of Orthopaedics and Traumatology
Project Abstract	This study aims to develop an innovative sport shoe to prevent supination type ankle ligamentous sprain injury, which is the most common sport-related trauma.

SF/11/ENG/024 (TBF/11/ENG/001)	A brain-controlled Chinese input system
Project Leader	Professor WANG Shi-Yuan William
Department	Department of Electronic Engineering
Project Abstract	The project aims to develop a home-based brain-controlled Chinese text input system, extending the investigators' previous lab-based prototype, helping paralyzed Chinese individuals who cannot communicate by conventional means, but who retain full consciousness and cognitive function, to type Chinese characters and communicate with others.

## **Technology and Business Development Fund 2010-11**

TBF/11/MED/005	The application of a prototype endoscopic dissection knife to perform endoscopic submucosal dissection (ESD) for treatment of early gastrointestinal cancers
Project Leader	Professor CHIU Wai Yan Philip
Department	Department of Surgery
Project Abstract	The project aims to assess the new designed device for enhancing the performance of Endoscopic Submucosal Dissection (ESD).

TBF/11/SCI/009	Nuclear Magnetic Resonance Spectral Database of DAN Mismatches
Project Leader	Professor LAM Sik Lok
Department	Department of Chemistry
Project Abstract	In this project, the investigator will use solid-phase phosphoramidite chemistry to prepare DAN duplexes containing a single mismatch with different nearest flanking base pairs. The long term impact of this project will help facilitate the development of DNA-binding drugs for treating of cancers.

TBF/11/SCI/012	Heterocyclic Compounds Preparing: Development of New Cyclization Methodology Complement the Olefin Cross-Metathesis for Pharmaceutical Industry and Related Applications
Project Leader	Dr. HO Chun Yu
Department	Department of Chemistry
Project Abstract	The project aims to further develop the investigators' newly found catalytic heterocyclic compound preparation technology and to demonstrate its utilities or implications.



**Specific Comments/Observations on CUHK's 2010/11 Annual Report  
for the Recurrent Funding for Knowledge Transfer Activities**

CUHK

- It is commendable that the University has further sharpened the use and impact of the KT funding, through measures including the new Patent Application Fund and Technology and Business Development Fund, to encourage innovations (some of which are inter-disciplinary) to emerge from each Faculty. It is also pleasing to note that CUHK has made use of its innovative KT community projects to shape its institutional character of caring for social needs and concerns, for the benefit of the community.
- We note that the KT Office proactively promotes KT to the academic staff, including direct face-to-face (some being one-to-one) discussion, which the University found effective in engaging the academics. There was also enhanced coaching and support to both potential investors and academics at both pre-incubation and prototype development stages. We look forward to seeing the outcomes of the planned Professional Enhancement Fund which aims to motivate and incubate more academics to become active practitioners and advocate of KT to their colleagues.
- CUHK met virtually all (and exceeded some) of its KT performance targets in the past year. We are pleased to note the University's favourable performance in commercialization and exploitation of intellectual property rights (including the conclusion of a deal on genetic analysis solutions with very significant income). We also applaud CUHK's serious effort in setting and tracking both qualitative and quantitative performance indicators for *each* of its KT projects.