

# 中大 / CUHK / 通訊 NEWSLETTER

# #522



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# 渠網恢恢 監察不漏

## Smart Monitoring of a Vast Sewage System



▲ 吳克利教授(左二) 團隊研發的裝置體積約為30x22x6厘米，能監察地下渠管情況  
The device developed by the research team led by Prof. Wu Ke-li (2nd left), which is about 30x22x6 cm in size, can measure underground conditions of the drainage system

**從**古至今，防澇治汛、除污淨流都是民生要務。香港人煙稠密，地下渠道縱橫交錯。污水渠和雨水渠的總長度在2017年已達四千一百公里，比香港與印度首都新德里的距離還要遙遠。人手檢查渠道網絡，每需封路、打開沙井蓋，引致市民不便；密封的污水渠，容易積聚有毒和可燃性氣體，更是渠務工人最大的威脅。這些都是香港的渠務部門長久以來致力化解的問題。

中大電子工程系吳克利教授的團隊，獲創新科技署資助八百四十萬元，研發全球首個「無線排水實時監測系統」，量度地下渠道水位升降和有害氣體濃度，以便監察防範。

### 量水位毒氣 傳實時數據

研究團隊與政府渠務署、物流及供應鏈多元技術研發中心合作，去年8月於九龍灣區百餘地點的雨水渠及污水渠安裝密封式微型分析裝置，當中包括公園、運動場和工業區。這個裝置設於沙井蓋下方，監測水位，以及探測硫化氫、二氧化硫和甲烷三種有害氣體濃度。另外，裝置亦能檢查沙井蓋的開關狀態，防止有人非法打開井蓋，傾倒有害物質。系統每隔十五分鐘把樣本數據傳送，渠務署可實時知悉井內情況。

吳教授團隊面對其中一大難題，便是沙井蓋。吳教授指出：「香港的沙井蓋以鐵鑄造，厚度達十四厘米，本是阻礙電波訊號傳送的屏障。我們把弱點化為優勢，讓微弱電流在沙井蓋形成特定的分布，將之化為『天線』，反把訊號增強。」另外，研究團隊採用27MHz低頻訊號，可增加訊號穿透高樓的能力和傳輸距離。無線射頻系統通過「天線」把監測數據傳送至大廈天台的基站，監測人員便可運用中央監控系統或手機進行監察。現時坊間有類似探測裝置，但大部分採用GSM或LTE網絡來傳送數據，只能與近距離的無線基站通訊，而且只能量度單一數據。

### 防水浸意外 助城市規劃

看來簡單的數據，經分析後，可以反映多種情況。以水位變化為例，若水位長期處於高水平或回落速度減慢，代表渠道可能淤塞，渠務署便可未雨綢繆，派員疏導清理，預防水浸。

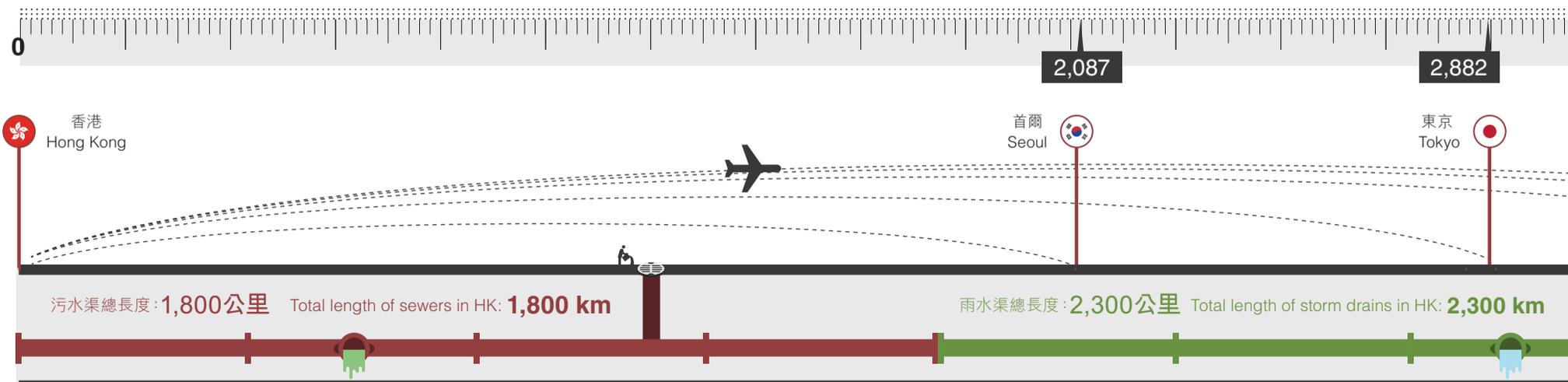
鄰近工廠區的污水渠，有害氣體的濃度也較高。甲烷極度易燃，容易發生爆炸；氣味如臭蛋的硫化氫在空氣中濃度一旦超過百萬分之一百，即足以引起不適甚至中毒。工人若吸入大量硫化氫而昏迷，掉進積存污水，更有遇溺之虞。若雨水渠突然錄得高濃度硫化氫，代表排污情況有異，可能是雨水渠誤駁污水渠，甚至有人違規排污。吳教授研究團隊的監測系統正好偵測氣體濃度，發現異常，便可叫工人有所警惕，避免意外發生。

這個監測系統雖然仍在測試階段，但表現良好。渠務署將會在其他地區廣加應用，尤其是喉管網絡複雜的舊區。深圳水務集團也有意運用該類型傳感監控網絡，打擊非法排放。

渠道淤塞，及早清理，可防水浸擾民；毒氣積聚，及早察覺，則免人命傷亡。防災避險，是科技利民之極致。

**F**lood prevention and sewerage is an issue of utmost concern in all cities. In densely populated Hong Kong, the underground drainage network is more than complicated. As of 2017, the storm drains and sewage networks had reached a total length of 4,100 km, longer than the distance between Hong Kong and New Delhi, the capital of India.

Drainage inspection often involves hassling procedures, such as road closure and opening of manholes, causing inconvenience to the public. In addition, hazardous and inflammable gases are easily accumulated in enclosed underground environments, posing threat to workers entering the manholes. These are the challenges that the HKSAR Drainage Services Department (DSD) has long grappled with.



Funded with HK\$8.4 million from the Innovation and Technology Commission, a research team led by Prof. **Wu Ke-li** from the Department of Electronic Engineering has developed the world's first-ever sensing wireless network for monitoring underground conditions of the drainage system. The network measures and reports real-time information on concentration of hazardous gases and change of water level.

### Transmitting Real-time Data

In August 2017, the research team cooperated with DSD and the Logistics and Supply Chain MultiTech R&D Centre to install monitoring devices in about 100 manholes covering storm drains and foul sewers in parks, sports grounds and industrial areas in Kowloon Bay.

The device monitors the change of water level and concentration of three types of hazardous gases—hydrogen sulphide ( $H_2S$ ), sulphur dioxide ( $SO_2$ ) and methane ( $CH_4$ ). In addition, it can detect whether the manhole cover is open and thus prevent unauthorized opening of the covers and illegal dumping of hazardous materials into the drains. The sample data are sent back every 15 minutes, allowing DSD to monitor underground conditions in real time.

One great challenge that the team had to overcome is the manhole cover. 'The 14-cm thick cast iron cover is an obstacle that barricades signals. We turn such an obstacle into a stepping stone, using the manhole cover as an "antenna" to reinforce signals,' Professor Wu said. Besides, the team has used a low frequency signal of 27MHz to enable the transmission of radio waves through buildings and over longer distances to base stations on rooftops kilometers away.

Most of the similar sensing devices currently available use GSM or LTE networks to transmit data, resulting in shorter transmission distance. They are capable of measuring only one kind of data while Professor Wu's can measure up to five.

### Preventing Flooding and Accidents

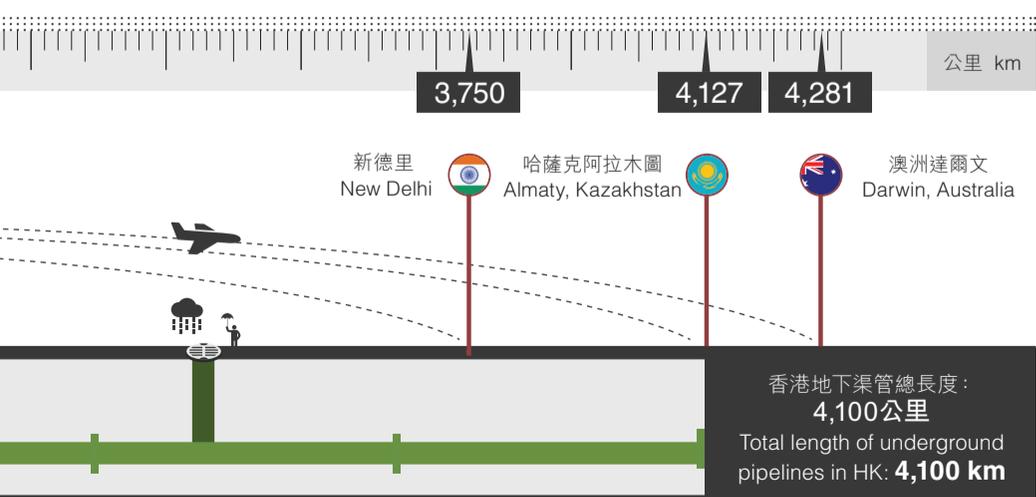
The analysis of the data collected can be highly informative of the underground scenario. For example, if the water level in drains remains persistently high or lowers too slowly, the drains could possibly be blocked and require immediate inspection and clearing. DSD, being alerted, will be able to carry out flood precaution measures.

The concentration of hazardous gases is normally higher in sewers near industrial areas. Methane, an extremely flammable gas, ignites easily to cause explosion. Hydrogen sulphide, a gas with 'rotten egg' smell, is commonly found in sewers. If its airborne concentration is above 100 parts per million, it may cause gas poisoning, leading to loss of consciousness and putting workers at the risk of drowning. If an unusual high concentration of hydrogen sulphide is recorded in storm drains, it may imply misconnection of sewer to storm drains or unauthorized discharge of sewage into storm drains. With the help of Professor Wu's device, frontline workers can be promptly alerted of any possible irregularities in gas concentration.

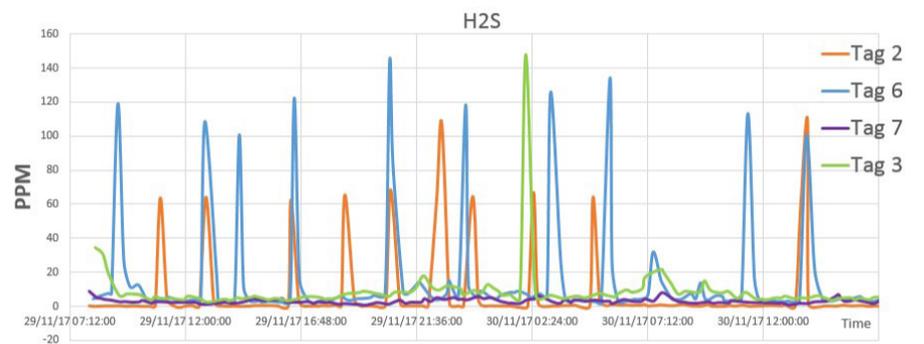
In view of its satisfactory trial performance, DSD will extend the application of the wireless monitoring system to other districts, in particular to older districts where drainage networks are often complicated. The Shenzhen Water Group is also considering using the system to combat unauthorized discharge.

Clearing blocked drains helps reduce the risk of flooding, while early detection of poisonous gases minimizes the risk of accidents. There is no better use of science and technology than the prevention of disasters and protection of workers. 🏠

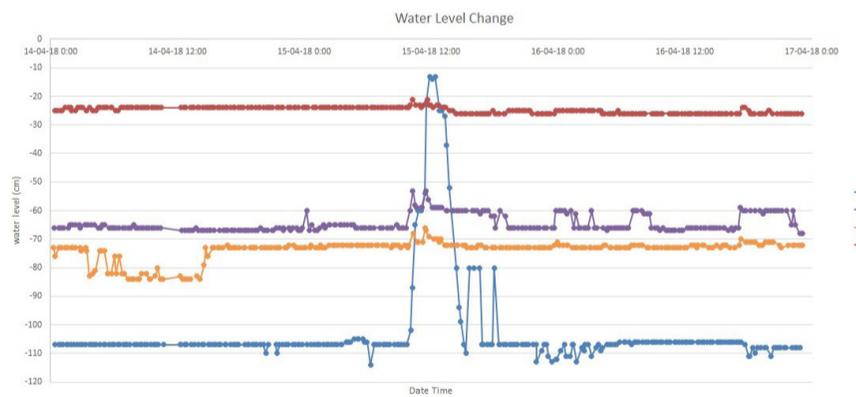
M. Mak



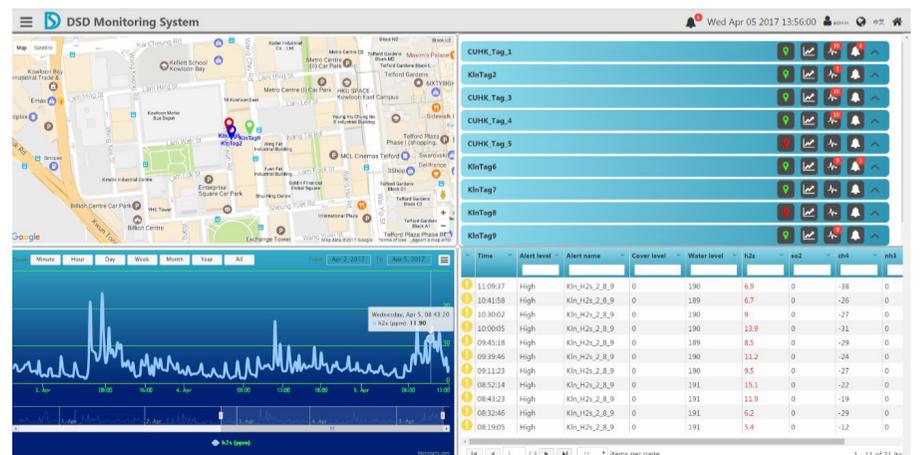
▲ 監測系統備有五個傳感器，分別量度水位、三種有害氣體濃度和顯示沙井蓋的開關狀態  
The device consists of five sensors for monitoring the water level, the concentration of three hazardous gases, and detecting the opening and closing of the manhole cover



▲ 通過監控污水井硫化氫濃度的變化規律，可知道周邊建築物的污水排放情況及用水習慣  
Analysis of hydrogen sulphide concentration in sewers reveals wastewater discharge and water use patterns in surrounding buildings



▲ 通過對比上下游的水位變化狀況，可以估算渠道內的水流流量變化，從而評估渠道容量是否能夠滿足雨季的排放要求  
Volume of water flow in drains can be estimated by comparing the change in water levels along the drains, hence evaluating the drain capacity for containing heavy monsoon rains



▲ 研究團隊就監測系統設計了網頁和手機應用程式。監測人員可透過這些介面隨時隨地閱讀不同位置的數據，從而減少巡查次數  
A webpage and a mobile application for the system allow DSD staff to view data anytime from anywhere, hence reducing the number of routine inspections

# 遇見中大新鮮人

## Meet CUHK's Next Generation



**暑**假漸入尾聲，校園各處開始湧現身穿各式迎新服的新生，朝氣蓬勃地開展大學之旅。今年中大透過聯招辦法，共錄取二千八百八十六名文憑試考生，99.5%以中大課程為 Band A 選擇。於文憑試考獲五科 5\*\* 成績或以上的考生中，逾四成獲中大錄取，當中包括三位考獲七科 5\*\*，以及十一位考獲六科 5\*\* 的考生。

以最佳五科成績中位數計算，全港十個收生分數最高的課程中，五個為中大課程，計為連續五年全港收生成績中位數最高的醫學（環球醫學領袖培訓專修）、環球商業學、醫學、計量金融學及風險管理科學，以及國際貿易與中國企業。

此外，中大錄取了六位獲全額學費贊助的第四屆「民政事務局多元卓越獎學金」得主；還透過大學的「運動員獎學金」錄取了二十三位運動精英，包括三位港隊代表。

新生們除了學業成績出眾，更是多才多藝，當中不乏音樂人才、運動健將和科創新晉。

As the summer comes to an end, new students in different colours of orientation camp T-shirts crop up on campus, ready to begin their university journeys. This year, through the Joint University Programmes Admissions System (JUPAS), CUHK has admitted 2,886 students who sat the Hong Kong Diploma of Secondary Education (HKDSE) examination. 99.5% of them have made CUHK their Band A choices. Among all candidates who achieved the highest level of 5\*\* in five subjects or above in the HKDSE territory-wide, over 40% were admitted by CUHK, including three top-scorers with 5\*\* in seven subjects, as well as 11 students with 5\*\* in six subjects.

In terms of the median admission scores of the best five subjects, five out of the top 10 programmes among the JUPAS institutions in the territory are offered by CUHK, including Medicine (Global Physician-Leadership

Stream), Global Business Studies, Quantitative Finance and Risk Management Science, Medicine and International Business and Chinese Enterprise. Medicine (Global Physician-Leadership Stream) is the top programme with the highest median admission scores territory-wide for five consecutive years.

Six admittees were awarded the fourth 'Multi-faceted Excellence Scholarship' under the auspices of the Home Affairs Bureau, and were offered sponsorships for their full tuition fee. Twenty-three students have been admitted to CUHK through the University's Sports Scholarship Scheme with their outstanding performances in sports, three of whom represent Hong Kong in their respective fields.

This year's freshmen represent a diverse and talented group of students and we can find many musicians, athletes and inventors among them. 🎨

### 陳嘉龍 Chan Ka-lung

手握多項科技比賽獎項的陳嘉龍入讀經濟系。他中五時與兩位好友共同研發「便攜式手語翻譯手套」，運用藍牙技術，配合手機應用程式，將戴上手套後的手語動作翻譯成屏幕上的多國文字，方便聾啞人士與外國人溝通。此發明於「國際可持續發展項目奧林匹克競賽」贏得分組項目季軍。

Economics freshman Chan Ka-lung has been winning technology accolades since young. When he was in Secondary Five, he collaborated with two schoolmates to develop a 'sign-translate glove' that turns sign language from hand gesture into multi-lingual texts displayed on a smartphone. Utilizing Bluetooth technology, the device allows the deaf to communicate with foreigners. The design won the team a bronze medal in the International Sustainable World Project Olympiad.

### 林依諾 Lam Yee-lok

健康與體育運動科學新生林依諾為乒乓球港隊成員。2011年，依諾在波蘭奪得個人首個女單世界冠軍，此後屢獲殊榮。然而，反覆密集的訓練曾令她賽前受傷，更久未痊癒。面對人生低谷，依諾憑多年於運動場鍛鍊的堅毅意志克服困局，並悟出個人信念：習慣走額外的路，將付出變為成功的踏腳石。

Lam Yee-lok, a member of the Hong Kong Women's Table Tennis Team, was admitted to the Physical Education, Exercise Science and Health programme. In 2011, she won her first Girls' Singles in Poland. She has gathered many more awards over the years, but not without setbacks. She was once diagnosed with arthritis caused by intensive training. With the determination and perseverance developed in the sports field, she ultimately recovered. The experience reinforced her belief that one needs to go the extra mile for a brighter future.

### 陸禧 Luk Hei

陸禧自幼習鋼琴與口琴，更屢於音樂節獲獎，為2016年亞太口琴節冠軍。他亦喜歡踢足球，音樂與運動都是他紓緩考試壓力的良方。他以七科 5\*\* 的佳績入讀中大環球商業學，冀藉此增廣見聞，結交來自不同文化的朋友，裝備自己迎接未來。

Luk Hei has been playing piano and harmonica since childhood and was a winner of the 2016 Asia Pacific Harmonica Festival. He also plays soccer and finds in sports and music much relief from exam stress. He attained 5\*\* in seven subjects in the HKDSE and was admitted to the Global Business Studies programme, hoping to broaden his horizons and meet people from all walks of life.

### 袁瑋謙 Thomas Yuen

考獲七科 5\*\*，同時於數學延伸部分考獲 5\*\* 的袁瑋謙入讀醫學（環球醫學領袖培訓專修組別）課程。他在中學生物課了解到人體內不同系統互相協調，猶如宇宙般奧妙，所以希望透過修讀醫科加深了解。他的目標是成為行政醫學的專才，從醫療制度着手減輕公營醫療系統的負擔。

Thomas Yuen, a top scorer clinching 5\*\* in all seven subjects as well as a 5\*\* for the mathematics extended module, got into the MBChB (Global Physician-Leadership Stream) programme. Through studying biology in secondary school, he learned that the coordination between different systems of the human body is as fascinating as that of the universe. So he wishes to know more by majoring in medicine. He aims to become an expert in administrative medicine to improve the healthcare system and to ease the burden on public services.





## 移植微生物減肥 Using Microbes to Lose Weight

醫學院成立亞洲首間「微生物移植及研究中心」，專研腸道微生物群在人體發揮的作用，以訂立預防及治療疾病的新策略。醫學院早年已成功透過移植健康人士糞便內的微生物群治療多種腸道危疾，現正將其應用拓展至肥胖、糖尿等疾病。初步研究發現，移植微生物群有助糖尿病患者減輕體重，其中一名研究參加者六個月內體重下降十二公斤。

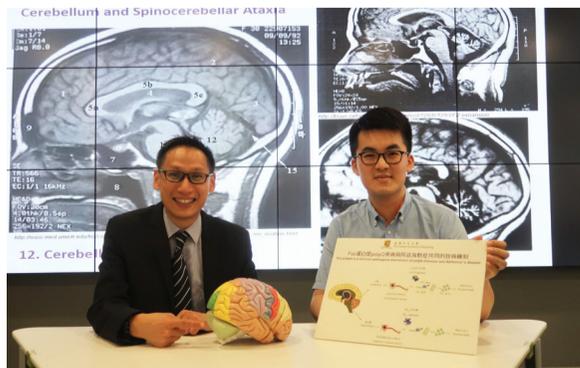
The Faculty of Medicine has established Asia's first microbiota transplantation and research centre to unravel the role of gut microbiota in human health, and to develop novel strategies for disease prevention and intervention. With successful experience in using gut microbes from the faeces of healthy people to cure others of fatal intestinal problems, experts from the Faculty are now studying whether the method can be applied to managing obesity and diabetes. A pilot study has shown that microbiota transplantation helps diabetics lose weight. The most substantial weight loss was 12 kg in six months.



## 揭小腦萎縮之謎 Demystifying 'Little Brain' Deterioration

罕見的小腦萎縮症三型迄今尚無法可治。生命科學學院陳浩然教授（左）及其研究團隊發現，該病成因與患者體內Fuz蛋白出現異常，導致神經元死亡有關。陳教授指，研究結果有助研發醫治小腦萎縮症的藥物，期望十年內可推出。

Spinocerebellar ataxia type 3 is a rare neuronal disorder that remains incurable. Prof. Edwin Chan (left) and his research team from the School of Life Sciences have discovered that the disease may be caused by faulty Fuz protein that leads to cell death in neurons. Professor Chan said the finding is conducive to the design of new drugs which are expected to be rolled out in 10 years.



## 擁抱晚晴 All's Well That Ends Well



人生在世，難免面對死亡，若能善終，或可舒緩晚晴病人的忐忑。為幫助大眾和醫護人員應對社會老齡化問題及提升晚晴照顧質素，中大賽馬會老年學研究所於8月18日在康本國際學術園舉辦「晚晴照顧規劃」公眾教育活動，參加者逾四百七十人。講座內容涵蓋與認知障礙症患者訂立預設照顧計劃的技巧、應用《嚴重疾病對話指南》與晚晴病人商談，以及晚期照顧的靈性關懷。參加者隨後分組出席「應用《嚴重疾病對話指南》」講座、晚晴照顧手冊製作班、從園藝說生死體驗班和晚期照顧的臨床倫理工作坊，從中學習與晚晴病人同行。

Death is inevitable, but a good ending probably relieves the anxiety and frustration alongside. To help the public and the healthcare workers respond to the challenges in the ageing city and enhance end-of-life care, the CUHK Jockey Club Institute of Ageing held a public event on End-of-Life Care education on 18 August at the Yasumoto International Academic Park. Over 470 attendees took part in the seminar, who benefited from topics on advance care planning for dementia patients, conversation with healthcare workers using Serious Illness Conversation Guide (SICG), and spiritual care at the end of life. After the seminar, they also joined interactive workshops on the application of SICG, advance care planning handbook making, reflection on life and death via horticultural therapy, and clinical ethics in end-of-life care. The knowledge and experience acquired have equipped them to walk an extra mile with patients at the end stage of their lives.

## 透視人工智能的未來 Shedding Light on the Future of AI

中大（深圳）與清華—伯克利深圳學院於7月30至31日合辦「機器學習與工業智能國際論壇」，邀得中外頂尖學者雲集南山智園，就工業智能、智能製造、智能操作和控制、工業物聯網、機器學習等領域深入交流。論壇吸引來自華為、騰訊、上海證券等知名企業人士出席，以及清華大學、香港中文大學、史丹福大學、浙江大學、廈門大學等高校師生的參與。

CUHK (SZ) and the Tsinghua-Berkeley Shenzhen Institute jointly held the Workshop on Machine Learning for Industrial Intelligence from 30 to 31 July, gathering top scholars from across the world in Nanshan Smart Park to have in-depth discussions on industrial intelligence, intelligent manufacturing, intelligent operation and control, industrial Internet of Things and machine learning. The forum attracted business people from well-known corporations like Huawei, Tencent and Shanghai Securities, as well as the participation of teachers and students from Tsinghua University, CUHK, Stanford University, Zhejiang University and Xiamen University.

## 加入環太平洋聯盟 Joining the Pacific Rim League

段崇智校長於6月24至26日於台北參加由國立臺灣大學主辦的第二十二屆「環太平洋大學協會（APRU）」校長會議。是次會議主題為「Our Digital Future in a Divided World」。段校長與超過一百名APRU成員大學代表探討在瞬息萬變的數碼時代，大學如何推進創新、消除隔膜、培育各種專才以迎接未來挑戰與機遇，並介紹中大獨特的優勢及卓越的科研成就，也對日後與APRU及其成員大學的合作表示振奮。

Vice-Chancellor Prof. Rocky S. Tuan took part in the 22nd Association of Pacific Rim Universities (APRU) Annual Presidents' Meeting in Taipei from 24 to 26 June. Over 100 delegates from APRU member universities joined the meeting hosted by the National Taiwan University. Themed 'Our Digital Future in a Divided World', the meeting explored how universities will play a critical role in advancing innovation, bridging divides, and preparing a diverse workforce for the challenges and opportunities ahead. Professor Tuan shared the unique features and research strengths of CUHK and expressed excitement to engage with APRU and its member universities.



## 推廣香港高等教育 Promoting Hong Kong's Higher Education



5月下旬，八所本地資助大學在美國費城的NAFSA高等教育會議及展覽期間，舉行了一場午餐會。協理副校長王淑英教授代表八大向近三百名來自世界各地的國際教育專業人員簡述香港高等院校推動國際化的成就，並介紹與香港院校的教研合作機會。此外，王教授亦主持了一場以「讓國際學生融入校園」為主題的座談會，邀請來自加拿大、香港及日本的專家分享心得。

Associate Vice-President Prof. Wong Suk-ying represented eight UGC-funded universities in Hong Kong to host a luncheon for some 300 international education professionals from around the world during the NAFSA 2018 Annual Conference & Expo held in Philadelphia at the end of May. Professor Wong spoke of the internationalization efforts devoted by Hong Kong and its universities, and unique opportunities on offer for collaboration in teaching and research. She also chaired a session on best practices for integrating international students on campus, and drew experience from Canadian, Hong Kong and Japanese experts.



### 丘成桐談哈佛三十年 Yau Shing-tung on His 30 Years at Harvard



中大博文講座教授、中大(深圳)傑出大學教授丘成桐8月1日於中大(深圳)演講,分享他在哈佛大學教研三十載的見聞經歷,以及對高等教育的新思考。「在這個變動的時代,應始終堅持教育的功能和理想,並致力照亮人性之美,這一原則應被奉為高等教育的靈魂。」丘教授以此作結,贏得全場起立,鼓掌稱善。

Prof. Yau Shing-tung, Distinguished Professor-at-Large of CUHK, gave a lecture at CUHK (SZ) as its Distinguished Professor on 1 August on his 30 years of teaching and research at Harvard University and his new insight about higher education. 'In this era of change, we should always adhere to the functions and ideals of education, and be committed to illuminating the beauty of human nature. This principle should be regarded as the soul of higher education.' The final remark won him a standing ovation from the audience.

### 亞運摘銀 Claiming Silver at the Asian Games



心理學系研究生鄭莉梅於雅加達亞運會代表香港游泳隊出戰,首日賽事與隊友奪得女子4×100米自由泳接力賽銅牌,及後再奪4×200米自由泳接力賽銅牌,更於4×100米混合泳接力賽贏得銀牌,是香港游泳隊繼1994年廣島亞運的女子4×100米自由泳接力後,再次於亞運摘銀。

Postgraduate psychology student Camille Cheng, also a member of the Hong Kong Swimming Team, clinched a bronze medal in the Women's 4×100m Freestyle Relay with her teammates on the first day of the Jakarta Asian Games, and another in the 4×200m Freestyle Relay. She went on to take silver in the 4×100m Medley Relay, which is the best result achieved by the Hong Kong Swimming Team for 24 years since the 1994 Hiroshima Games.

### 透露創科發展策略 Revealing Technology Development Strategies



段崇智校長於8月27日面見傳媒,簡介大學的未來發展策略。段校長表示,內地及香港的科研政策先後出台,大學委任陳偉儀教授為副校長(策略發展),將進一步與各界聯繫合作,包括與落馬洲河套地區、粵港澳大灣區以及「一帶一路」國家建立夥伴關係。科技的發展和應用是大勢所趨,而中大在生物醫學和人工智能方面成就顯著。要推動科技發展,段校長認為應「把上游的技術和概念轉化為下游的產品。」

Vice-Chancellor Prof. Rocky S. Tuan met the press on 27 August to share the University's development strategies. Professor Tuan disclosed that the University had appointed Prof. Chan Wai-ye as Pro-Vice-Chancellor (Strategic Developments) and would foster relationship with strategic partners based in the Lok Ma Chau Loop, the Greater Bay Area and the Belt and Road countries to capitalize on the development of innovation and technology initiatives and research opportunities. He pointed out that CUHK excels in the fields of biomedical science and artificial intelligence, and to drive technological progress, the key is to translate innovative ideas into marketable products.

### 划艇隊十七連捷 Championship 17 Years in a Row for the Rowing Team

中大划艇隊健兒於「成龍挑戰盃2018全港大學賽艇錦標賽」勇奪兩金、三銀及五銅的佳績,更衛冕全場總冠軍,連續第十七年奪得此項殊榮。

The CUHK Rowing Team won two gold, three silver and five bronze medals in the Jackie Chan Challenge Cup Hong Kong Universities Rowing Championships 2018. The team bagged the Overall Championship again, making it the winner of the title for 17 consecutive years.



### 公積金計劃投資回報成績

#### Investment Returns of Staff Superannuation Scheme

| 基金<br>Fund                   | 7.2018              |                          | 1.8.2017 – 31.7.2018 |                          |
|------------------------------|---------------------|--------------------------|----------------------|--------------------------|
|                              | 未經審核數據<br>Unaudited | 指標回報<br>Benchmark Return | 未經審核數據<br>Unaudited  | 指標回報<br>Benchmark Return |
| 增長 Growth                    | 1.46%               | 1.64%                    | 12.30%               | 9.64%                    |
| 平衡 Balanced                  | 0.64%               | 1.31%                    | 7.83%                | 7.67%                    |
| 穩定 Stable                    | 0.17%               | 0.29%                    | 2.00%                | 3.28%                    |
| 香港股票 HK Equity               | -0.30%              | -0.55%                   | 11.52%               | 7.90%                    |
| 香港指數<br>HK Index-linked      | -0.51%              | -0.45%                   | 8.25%                | 8.57%                    |
| A50中國指數<br>A50 China Tracker | -1.29%              | -0.61%                   | -0.78%               | 1.16%                    |
| 港元銀行存款<br>HKD Bank Deposit   | 0.15%               | 0.07%                    | 1.20%                | 0.38%                    |
| 美元銀行存款<br>USD Bank Deposit*  | 0.23%               | 0.11%                    | 2.51%                | 1.16%                    |
| 澳元銀行存款<br>AUD Bank Deposit*  | 0.84%               | 0.71%                    | -4.40%               | -5.73%                   |
| 歐元銀行存款<br>EUR Bank Deposit*  | 0.16%               | 0.24%                    | -0.87%               | -0.59%                   |
| 人民幣銀行存款<br>RMB Bank Deposit* | -2.90%              | -2.81%                   | 1.79%                | 0.76%                    |

強積金數據請參閱:

[www.cuhk.edu.hk/fno/chi/public/payroll\\_benefits/mpf.html](http://www.cuhk.edu.hk/fno/chi/public/payroll_benefits/mpf.html)

For MPF Scheme performance, please refer to:

[www.cuhk.edu.hk/fno/eng/public/payroll\\_benefits/mpf.html](http://www.cuhk.edu.hk/fno/eng/public/payroll_benefits/mpf.html)

\* 實際與指標回報已包括有關期間內之匯率變動

Both actual and benchmark returns include foreign currency exchange difference for the month

### 大學游泳池更改開放時間

#### Change of Opening Hours of University Swimming Pool

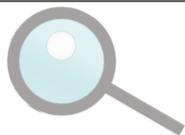
大學游泳池由8月31日(星期五)起更改開放時間如下:

The daily opening hours of the University Swimming Pool are revised with effect from 31 August (Friday) as follows:

| 逢星期一至星期四及星期日 Every Monday to Thursday and Sunday |   |
|--|---|
| 第一節 1st Session                                  | 10:30 am – 2:00 pm                      |
| 第二節 2nd Session                                  | 3:00 pm – 7:30 pm                       |
| 逢星期五 Every Friday                                |   |
| 第一節 1st Session                                  | 關閉進行每週大清潔<br>Closed for weekly cleaning |
| 第二節 2nd Session                                  | 3:00 pm – 7:30 pm                       |
| 逢星期六 Every Saturday                              |   |
| 關閉,直至另行通知 Closed until further notice            |   |

9月24日(星期一)為中秋節,大學游泳池按慣例提前於下午五時關閉。

On 24 September (Monday), the day of Mid-Autumn Festival, the University Swimming Pool will be closed at 5:00 pm as usual practice.



## 夏日涼涼

## Keeping a Cool Head

文物館位於百萬大道之上，每逢七八月，酷暑如蒸，外出午飯時真會覺得自己像鐵板上的肉，幾乎要滋滋作響。如此時節，如果像古人一樣，在脖子下墊一件瓷枕睡個小覺，你說有多透心涼呢？

硬梆梆的瓷枕會受歡迎似乎很難想像。但瓷枕創燒於隋，宋元以降，產地遍及南北，作為夏日消暑利器，確實風靡一時。北宋張耒有詩云「鞏人作枕堅且青，故人贈我消炎蒸，持之入室涼風生，腦寒發冷泥丸驚」，是不是看了也覺得功效顯著？明清之時，其他製枕材料興起，瓷枕這才功成身退。不過，瓷枕背後的工藝傳統與文化內涵卻仍為帝王所珍視。清乾隆皇帝便曾親自降旨，將一件「均釉涼枕」送交刻詩。台北國立故宮博物院藏一件鈞窯天青釉紫斑如意枕底刻御題詩，末句作「通靈旁孔透，怡神平底置。我自宵衣人，幾曾此安寐」，說明瓷枕曾蒙御前偏愛。

至於本文所介紹的這件青花瓷枕，則是明代正統至天順年間景德鎮御窯所製，點出明英宗或代宗在位期間，宮廷對瓷枕仍有需求。然則為何這件瓷枕看來飽歷風霜？這是因為它是御窯的失敗品，沒有上奉朝廷，當然也不能流入民間，必須打破了埋在御器廠內。

但可別小看了失敗品。正統、景泰、天順三朝是明代歷史上的特殊時期。二十八年間，因「土木堡之變」而生的種種政治角力，導致帝位頻繁更迭、政局動盪混亂。特殊歷史背景下，御窯瓷器的生產狀況亦顯得撲朔迷離。此時期御窯瓷器不落正規年款，令傳世品的斷代及深入研究舉步維艱，也讓此三朝被陶瓷史學者冠以「空白期」之稱。

2014年，景德鎮陶瓷考古研究所在珠山北麓發現大批瓷器碎片，從考古地層判斷屬正統至天順時期。雖然破損，但仍可見此時期的瓷器既有厚重巨作，又不乏輕盈巧製，細緻雕琢，精美裝飾，力證此時期的御窯生產不僅未有停滯，更持續進行着實驗與探索，充滿活力。換言之，正是因為找到這些失敗品，我們對空白期的認知才不再空白——所以說，一時一地的缺陷與失敗，換個空間，或許有新的重大意義也未可知呢！

此瓷枕及其他景德鎮御窯博物館藏最新考古發現將於文物館「填空補白II：考古新發現明正統、景泰、天順御窯瓷器」展覽展出，展期為9月1日至12月16日。這些器物也許並不完美，卻盛載了時光之美。



## 「糖」禍

## The Many Faces of Diabetes



如果地球是一百人的村落，1980年，有五人患上糖尿病；今天，有九人患病。醫學昌明，物質豐饒，但糖尿病患者佔人口比例卻幾近倍增。

很多病症都只侵襲身體某個部位，但糖尿病影響範圍大而深，所有血管密集的器官都受其害，眼、四肢和腎臟等，甚至引發記憶力衰退、抑鬱症。中大醫學院內科及藥物治療學系內分泌及糖尿科主任馬青雲教授指出：「香港近半洗腎病人都是由糖尿病引起。」

人均壽命增長，老齡引發的疾病愈趨普遍，但有些疾病則見年輕化，糖尿病正是其一。香港五名糖尿病人有一人是四十歲以下已經發病。習慣影響生命，上班族常常外出用膳，難免攝取過量鹽糖；工時長，四肢不動，糖尿病便伺機掩至。

馬教授舉一病例：「有位不足三十歲的病人患上早發性糖尿病，後來見身體沒有大礙便不再覆診服藥，兩年後視力模糊才求診，赫然發現腎功能僅餘兩成，餘生都得洗腎。」

孕婦也是高危群體。懷孕期間，荷爾蒙分泌改變，增加胰島素抗阻，血糖水平驟增，便導致妊娠糖尿病。五、六名孕婦中，便有一人患病。以前人們認為妊娠糖尿病只會影響孕婦本身，但中大醫學院的一項追蹤研究顯示，患有妊娠糖尿病的母親所誕下的子女，在七歲時血糖過高或超重的機會遠高於同齡兒童。

「糖尿病是無聲殺手。」馬教授揮手作刀劈狀說。當病徵浮現時，患者得終身與病相伴。莎翁的《請君入甕》有句名言，大意是：「飲食過度有傷胃口，毫無節制放縱，最終叫人失去自由。」正好是糖尿病的寫照。唯生活有度，方可遠離「糖」禍。

If the world were a village of 100 people, five villagers would have had diabetes in 1980. Today, nine. Despite advances in medicine and improved access to health care, the percentage of population with diabetes has nearly doubled.

Many diseases attack a particular part of the body, but diabetes can give rise to a wide range of complications. Organs with many blood vessels, e.g., eyes, limbs and kidneys, are vulnerable to the complications of diabetes. In addition to physical damage, diabetes may cause memory decline and depression. 'Half of the patients on dialysis have diabetes,' said Prof. **Ronald Ma**, Head of Division of Endocrinology and Diabetes, Department of Medicine and Therapeutics, Faculty of Medicine.

People are living longer throughout the world, and more people are affected by age-related diseases than ever before. Meanwhile, some diseases are becoming more common among young adults. Diabetes is a case in point. One out of every five diabetics in Hong Kong is diagnosed before turning 40. Lifestyle determines destiny. Office workers eat out a lot and inevitably take in excessive sodium and sugar. Long working hours and lack of exercise also bring on a higher chance of developing diabetes.

Professor Ma took one of his patients' case as an example: 'He was on the right side of 30 when he was diagnosed with early-onset diabetes. When he felt better, he stopped returning for consultation or taking medicine. He was admitted to hospital two years later because of blurred vision, only to find that his kidney function was down to 20% and he will require dialysis for the rest of his life.'

Pregnant women are just as susceptible to diabetes. Due to hormonal changes, they are likely to develop insulin resistance resulting in higher glucose levels, a condition known as Gestational Diabetes Mellitus (GDM). More than one in six pregnant women would develop GDM. People used to believe that GDM affects only mothers-to-be. However, a study published by the Faculty of Medicine in 2017 showed that children born to mothers with GDM would have a much higher risk of hyperglycaemia and overweight than other children of the same age.

'Diabetes is a silent killer,' said Professor Ma with a chopping gesture, for diabetics have to live with the disease for the rest of their lives. In Shakespeare's play *Measure for Measure*, when Claudio is asked why he is under restraint, he replies, 'From too much liberty, my Lucio, liberty: as surfeit is the father of much fast, so every scope by the immoderate use turns to restraint.' Claudio's words also speak to diabetes: temperance keeps diabetes away.

M. Mak

# 李謙諾

Jonathan Lee

李謙諾於2015年考獲五科三十二分，位列公開試「尖子」，有條件報讀「神科」卻選擇了中文系，因而被傳媒大肆報道。近年冠在每一屆尖子頭上的光環未見減弱，李謙諾對此現象另有一番見解。

- 中國語言及文學系四年級生  
Year 4 Student of Chinese Language and Literature
- 三度獲文學院院長榮譽錄及新亞書院優異生獎  
On the Dean's List and Head's List (Merit),  
New Asia College, for three consecutive years
- 2017/18滙豐香港獎學金得主  
Recipient of the HSBC Scholarship 2017/18
- 連續兩屆洗為堅中大金禧文史哲獎學金得主  
Recipient of the Sin Wai Kin CUHK Golden Jubilee  
Scholarship in Arts, History and Philosophy for two  
consecutive years

**Jonathan Lee** was a top performer who achieved 32 marks in five subjects in the Diploma of Secondary Education (DSE) exam in 2015. He could have enrolled in any prestigious programme, but he chose to major in Chinese Language and Literature, which was hyped by the media. In recent years, top scorers of public exams have never failed to make headlines. Jonathan shared his view on this phenomenon.

## 尖子入讀中文系成為新聞，你認為這反映了甚麼？

其實香港也有太多尖子入讀醫科成為新聞的現象。社會一方面讚揚選讀「乞食科」即是勇於追尋理想，另一方面又認同選讀「神科」乃達至成功人生最穩妥的方法。我認為兩者在本質上並沒有衝突：發展所長、追尋理想何以不能達至美滿的人生呢？

然而，港人似乎已經坦然接受了「興趣和所長都與自己的工作無關」是必然的現實，倘若要維持生計，就注定要放棄自己的理想。基於這個認知，社會發展出各樣不平衡的心理，譬如一方面讚揚選讀「乞食科」的學生勇敢，但同時挑剔其動機、家庭背景等，乃至否定該學生的價值和將來。在另一邊廂，又會批評選讀「神科」的尖子功利，心底裏卻又會嚮往。

## 這是一種既羨且妒的心理？

對，升學選科之所以具備新聞價值，或多或少都與港人這種「羨慕一妒忌」無法調和的心理有關。這種「變態」的心理產生得十分「自然」、「平常」，這才叫人不寒而慄。一名學生要升學選科，尋常得與「馬總統看手錶」一樣，卻被大肆報道，逼使學生要經歷各界的拷問。

## 你曾有意當補習教師，是要做年薪過百萬的補習天王嗎？

中文科一直被稱為「死亡之卷」。我對中國文化情有獨鍾，但身邊的同學卻完全沒有興趣，未免可惜。當初希望成為補習老師，並非因為可觀的收入，而是希望改變學生對中文科的負面看法。學校的中文老師面對多方面的局限，當一名補習老師反而能彈性設計課程，提升學生學習中文的興趣。

## 在中大修讀中國語文，可有滿足到你學問上的渴求？

在入大學前，我還擔心大學中文系跟中學一樣偏重語言技巧的訓練。豈料中大中文系的教學內容多元化，課程涵蓋語言文字、古籍文獻、古典文學和現代文學四個範疇。在濃厚的研究氣氛下，學生既能開闊視野，又能作深入的分析，培養研究能力。中文系的訓練讓我認識到世界比想像中還要大，在研讀語文時多開拓新路徑。

## 求學時有遇到良師嗎？可否說說其中一位對你的影響？

我在中文系遇到的良師很多，我要感謝我的畢業論文指導老師馮勝利教授。他在韻律句法學、中西合璧的語體語法學的研究成就啟發了我着手研究粵語句末助詞的特徵。他亦十分願意提携後輩，慷慨地分享自己的研究技巧和人生經歷。

## 在國外頂尖學府的經驗，有影響你畢業後的打算嗎？

我到過耶魯、劍橋和里昂天主教大學交流。當中影響我最深的，莫過於是一年級時的「新亞書院/耶魯大學交流活動」。與耶魯學生緊密生活在一起，他們天文地理無所不知，真正展現了「通識」的魅力。原本我只想埋首鑽研中文，回港後決定雙副修法文和哲學。畢業後我打算報讀美國或歐洲的大學，繼續對語言的探索。

## 熱愛中文，長於中文，可會令你在同齡的人中格格不入？

不會，各人各有所長，都會互相欣賞。

## 你會用廣東話還是書面語寫短訊？

我會混雜中英文書面語和口語，以及粵語拼音。我相信大多數香港人也習以為常地混雜中英文溝通，而這正是香港粵語的特色所在。我除了在一些莊重的語境下使用書面語外，日常短訊都沒有刻意使用純廣東話或純書面語。

## A top scorer choosing to major in Chinese makes newspaper headlines—what's your view on this?

There is also too much spotlight on top scorers entering medical schools. On one hand, our society would praise students majoring in literature for their courage to fulfil their dreams. On the other, the public would admire those who get into prestigious programmes, such as medicine, because those programmes promise a lucrative career. There is no conflict between the two. Why can't students develop their potential and fulfil their dreams while striving for a happy life?

The problem is most Hong Kong people accept the idea that the workplace is not where we should develop our interests and potential. If you want to earn a living, you have to give up your dreams. I fear that these stereotypes are deeply ingrained in our thoughts. The media not only pick on the motivation and family backgrounds of students who major in a 'loser's programme', they also go as far as questioning their choices and the possibility that they can live a rewarding life. People also criticize students who major in the 'winner's programme' for being too pragmatic, but in their heart of hearts, they know they are envious of them.

## How So?

The media's fascination with top scorers' programme choices reflects the delicate difference between envy and jealousy. I do not think this is the way it should be. A student's choice of his or her own degree programme shouldn't be a subject of widespread reporting. Students shouldn't be made to go through all the grilling, too.

## You once aspired to teach in a private tutorial school. Were you attracted by the lucrative incomes of celebrity tutors?

The DSE Chinese exam is dubbed 'the paper of death'. It's heartbreaking for me to see my classmates showing little interest in their own language. I wished I could fix the negative impression of learning Chinese among teenagers. While the work of a regular school teacher of Chinese is made difficult by various limitations, tutors at tutorial schools could design their courses more flexibly to better motivate their students. The huge monetary reward was not my major consideration.

## Does studying the Chinese language at CUHK quench your thirst for knowledge?

Before entering the university, I was worried that Chinese would be taught in the same way as in secondary school which overemphasizes practical skills. Surprisingly, the curriculum affords me a close examination of the characteristics of the Chinese language, modern linguistics, and classical and modern literature. The solid training provided by the Department enables us to gain wider exposure and develop a stronger foundation to analyse the Chinese language. My training at CUHK has assured me that the world is larger than we thought. It also opens up new avenues in Chinese language studies.

## Who is the most impressive teacher you have met at CUHK?

I have met many good teachers at the Department of Chinese Language and Literature, among whom I must express my hearty thanks to Prof. **Feng Shengli**, the advisor of my graduation thesis. His achievements in prosodic syntax and stylistic-register grammar inspired my research in sentence-final particles in Cantonese. He is very willing to give his students a hand and share his research expertise and life experience generously.

## Does your exchange experience in world-leading universities affect your plan beyond graduation?

I went to Yale, Cambridge and Université Catholique de Lyon for student exchange. I enjoyed the New Asia College-Yale University Student Exchange Program (YUNA) most. It provided me an opportunity to make friends with people who are well versed in a broad spectrum of knowledge. This experience significantly broadened my horizons and reinforced my interest in language learning. After returning to Hong Kong, I decided to minor in French and Philosophy. I plan to apply for postgraduate studies in the US or Europe to continue my exploration in linguistics.

## As a Chinese language enthusiast, have you ever felt like being the 'odd man out' among your peers?

We are all different. Everyone has his/her own unique gifts and abilities. We can all learn from one another.

## Which language do you prefer to use for sending text messages, Cantonese or written Chinese?

I believe I am similar to most Hong Kong people who habitually code-mix written and spoken Chinese, English and Cantonese Romanization. Code-mixing is a crucial characteristic feature of Cantonese in Hong Kong. While I would use written Chinese in formal occasions, I swap between Cantonese and written Chinese in sending text messages. 📱

Christine H.