



2 近視終結者 任卓昇守護靈魂之窗

Myopia Terminator

Jason Yam safeguards the windows to the soul

4 步步生電

廖維新將人體動能化作電力

The Force is with Us

Liao Wei-hsin harvests energy from human motion

5 文白異讀面面觀

Identical in Shape, but not in Sound

6 皇牌協調師

The Ultimate Facilitator

9 花開富貴

Peonies in Bloom

不時不食

Fast Thoughts on Diet

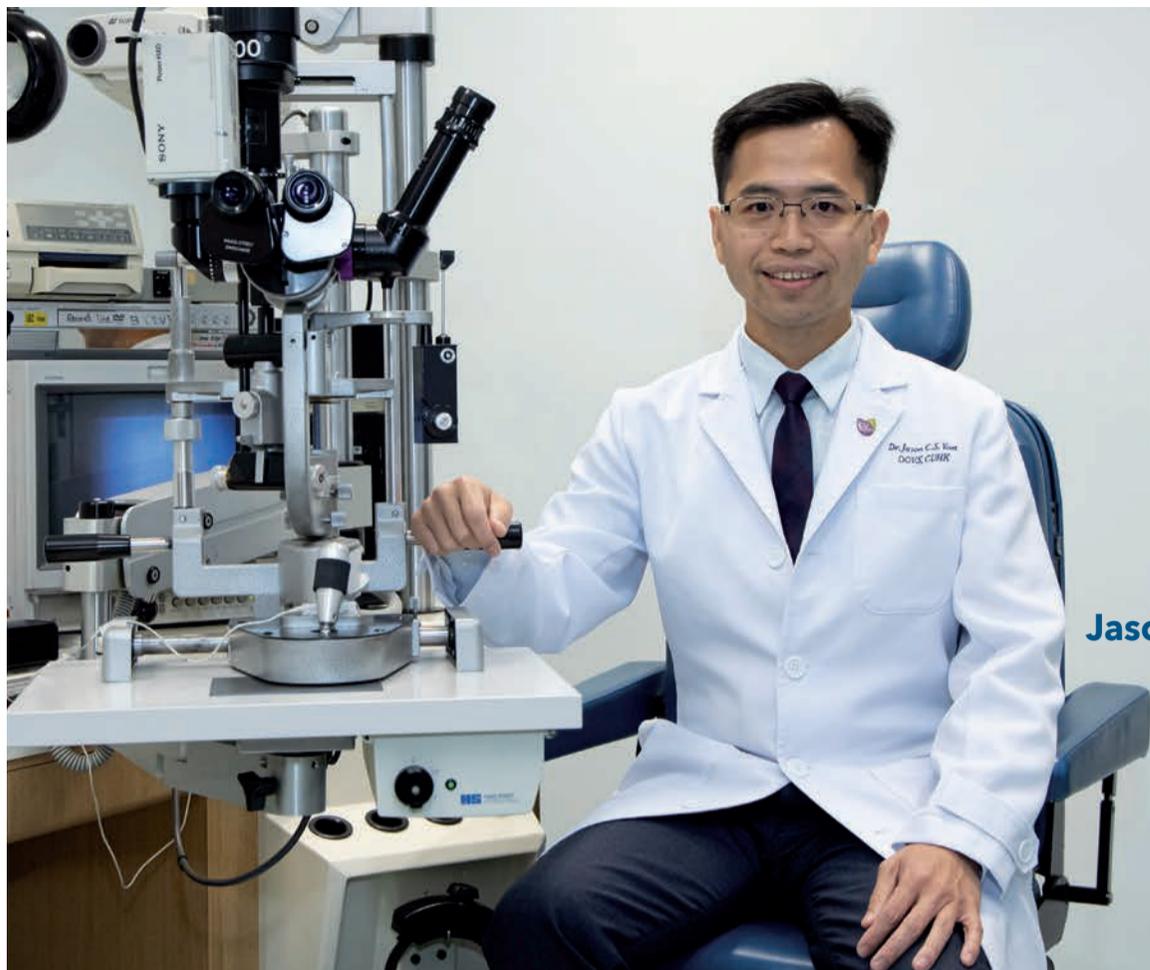


Photo by Eric Sin

近視 終結者

任卓昇 守護靈魂之窗

Myopia Terminator

Jason Yam safeguards the windows to the soul

去年10月，香港十大傑出青年選舉結果揭曉。八名得主中，中大人佔其四，當中包括眼科及視覺科學學系副教授任卓昇。他的工作地點在香港眼科醫院，坐落在豪宅名校林立的九龍塘；他的童年也是在九龍塘度過的，但當時居住的「模範村」並非深宅大院，而是一處為安置遷徙居民而開闢的木屋區。

從父母身上他學會勤勞的美德。媽媽是街道清潔工，任卓昇常帶着妹妹和學生弟弟到她工作的地方幫忙清理垃圾，讓她早點下班；也會在家中和媽媽一起加工鎖匙扣，幫補家計。「日子雖然清貧，但充滿快樂的片段。」當燒臘師傅的爸爸全年只有年初一那天休息。「所以我現在也沒有上班和下班時間之分。全身心投入工作在我家來說是理所當然的事。」

他學習非常用功，從初中開始每晚唸書至凌晨三點。「聰明與否，自己決定不了，但努力與否是可以掌控的。」他考上港大醫學院，畢業後成為東華東院的醫生。他選擇眼科為其專科發展方向，因為「黑暗可以比死更令人恐懼。眼科醫生能助人從黑暗走進光明，很有意義。」

他繼而把事業重心放在小兒眼科。八歲前是眼睛發育的黃金期。在這段時間矯正眼疾，視力可望完全恢復；倘若錯過了，視力很可能永久缺損。「小朋友能看清這個世界是基本權利。我不希望任何孩子因視力問題而影響學業和前途。」

在公立醫院行醫七年後，他開始不滿足於只是治病開藥，更希望透過研究，尋覓嶄新的治療方案，推動醫學發展，於是在2012年加入中大醫學院，專研小兒近視。他解釋，近視的後果絕不止視力下降。「近視者的眼球變長，猶如一部相機被拉長，裏面的菲林被扯薄，拍出來的照片就有問題。同理，深近視的孩子步入中年和老年，患上致盲眼疾如青光眼、黃斑病變、視網膜脫落的風險極高。」

任醫生更指出，即使現時醫學昌明，激光矯視等技術可去除近視度數，改善視力，但其實並不能還原已被拉長的眼球，近視併發症風險仍然潛伏。控制近視發生、避免眼球被拉長，必須把握兒童階段眼球發育的黃金期。

2018年中，他帶領團隊研發出用低濃度阿托品眼藥水治療近視，已成為全球目前最有效控制兒童近視的方法。阿托品

控制近視加深的功能早為人知，但傳統的阿托品眼藥水濃度為1%，會令瞳孔擴張，引致畏光、看近物模糊等副作用。任醫生的研究證實，濃度稀釋至0.05%的阿托品眼藥水副作用大大減少，且療效依然保持在能令近視加深速度減慢近七成。

具體而言，倘若小孩六歲出現近視，通常每年加深約一百度，十二歲就已達六百度，邁入深近視之列。使用低濃度阿托品眼藥水能控制每年只加深約三十度，成年以後也就維持在二三百度近視，不足為患。

團隊現正展開第二階段研究，探討使用低濃度阿托品眼藥水能否預防近視於未然。「倘若父母均患深近視，子女患近視的風險為常人十二倍。第二階段研究期望為尚未近視的高危群組小朋友及早預防近視。」看似簡單的滴眼藥水動作，足以為下一代注入終生受用的視覺幸福。

他的另一項研究發現，在貧富懸殊的香港，基層兒童常因父母忙於糊口，疏於照顧，導致延遲發現眼疾，錯過治療黃金期，視力永久受損。「我也是基層出身，明白如果給予基層小孩適切的保護和栽培，他們也能擁有光明的前途。我希望為他們做點事，所以開始投入社區服務」。

於是他發起全港兒童護眼服務計劃，每逢週末在中大眼科中心免費為學童詳細檢查眼睛，自2015年起已服務超過二萬個基層家庭。參與計劃的醫生、護士、視光師、醫科生，全是受任醫生一腔熱誠感動而前來幫忙的義工。計劃獲賽馬會慈善信託基金青睞，捐資四千四百萬元，用以增添儀器與人手，受惠者倍增，計劃也正式命名為「中文大學賽馬會瞳心護眼計劃」。

對於成年人的眼睛保健，任醫生有以下建議：第一，遵循30-30-30法則：每閱讀三十分鐘便要休息眼睛，遠望三十英尺外的景物三十秒；第二，閱讀時，手機或書本應與眼睛保持約三十厘米距離，看平板電腦則距離四十厘米，桌上型電腦則為五十厘米；第三，閱讀環境須光線充足；第四，多眨眼，眼乾時可以滴不含防腐劑、獨立支裝的人工淚液，但倘若眼乾眼紅持續就必須求醫。

任醫生也是亞太小兒眼科醫學會秘書長，代表香港推動小兒眼科在亞太地區發展，亦擔任二十多個國際眼科事務崗位，



▲ 任卓昇（右二）童年時一家五口雖然過得儉樸，但其樂融融 Jason Yam's (2nd right) family of five were making ends meet but were nonetheless happy



▲ 任醫生每逢週末免費為基層學童檢查眼睛 On weekends, Dr. Yam provides free examination for children from low-income families

組織團隊到柬埔寨、印尼、四川、新疆、雲南等地，提供醫療服務。

在傑青獲選人的介紹資料中，任卓昇在「最能代表自己的物件」一項填上「鎖匙扣」。他解釋，鎖匙扣除了是自己童年的縮影，還象徵他最大的心願：「要成就一件事，就好比打開一扇門。我並非天資聰穎，未必能成為開門的鎖匙。但我希望自己能成為一個連結，像鎖匙扣連結不同鎖匙那樣，聚集社區人士、義工、醫生、贊助方、政策制定者等等，合眾之力，讓近視有一天從地球上消失。」

It is no exaggeration to say that CUHK was the biggest winner at the Ten Outstanding Young Persons Selection 2019, with four of its eight awardees hailing from the University. Among the winners is **Jason Yam**, associate professor of the Department of Ophthalmology and Visual Sciences. He works at the Hong Kong Eye Hospital in Kowloon Tong, an affluent district dotted with capacious townhouses and elite schools. Though Yam grew up in the same area, his childhood milieu was far from affluent—the ‘Model Village’ he lived in was a squatter settlement strewn with ramshackle wooden huts.

From his parents he learned the virtue of hard work. His mother was a cleaner; Yam used to take his twin brother and younger sister to help clean the streets so their mother could finish work early. For extra money, the four of them would manufacture keychains at home. ‘We were making ends meet but were nonetheless happy.’ Yam’s father, a meat roaster at a restaurant, had only the first day of the lunar calendar as his day off throughout each year. ‘That’s why I don’t draw any line between work and non-work life either. Full devotion to one’s job is a matter of course in our family.’

Yam was an assiduous student and, since junior high school, he would stay up and study until three o’clock in the morning. ‘I don’t have a say in how intelligent I am, so instead I focus on how much effort I put into things.’ He earned a place at the medical school of the University of Hong Kong, and after graduation worked as a doctor at the Tung Wah Eastern Hospital. He chose ophthalmology as his specialty because, in his words, ‘Darkness can be more frightening than death. Being an eye doctor can help blind people regain vision, making a most rewarding profession.’

He further honed his expertise in paediatric ophthalmology and focused on treating eye diseases in children. The visual system in children remains flexible throughout the first eight years of life. If eye diseases are detected and treated properly during these years, acute vision will return. If vision problems are not remedied in this critical period, the consequence is a lifetime of decreased vision. ‘It is a basic right for children to have a clear view of this world. I don’t want any of them to have their future jeopardized because of eye problems.’

Seven years into serving at the public hospital, Dr. Yam began thinking beyond treating patients and prescribing medications. He imagined himself pushing back the frontiers of medicine by conducting research and finding new medical solutions, so he joined the Faculty of Medicine of CUHK in 2012 and became a researcher in childhood myopia.

Near-sightedness is far from a minor inconvenience, explained Dr. Yam. ‘Myopia is attributed to an increase in the eyeball’s length. Imagine a camera that is pulled apart and the film inside is stretched thin. The photos it takes are problematic. Likewise, when children with high myopia grow into middle and old age, they have a significantly increased risk of suffering sight-threatening conditions, such as glaucoma, macular degeneration and retinal detachment.’

Dr. Yam pointed out that even if refractive surgeries like LASIK can reduce or even eliminate the need for spectacles, the flattened eyeball is irreversible and thus the vision-threatening side effects still loom. Therefore, the most effective way to control myopia and stop the eyeballs from



▲ 任醫生以亞太小兒眼科醫學會秘書長身分推動小兒眼科在亞太地區發展
Dr. Yam has been leading the development of vision care in children in the Asia-Pacific

elongating is through interventions performed before the ocular system in children matures.

In mid-2018, a research team led by Dr. Yam came up with a solution to myopia by using low-concentration atropine eye drops—this is now the most effective treatment of childhood myopia in the world. Atropine had been used for years to arrest myopia progression, but the conventional 1% atropine eye drops cause pupil dilation, leading to photophobia and blurry near vision. Dr. Yam’s research showed the lower-concentration 0.05% atropine eye drops could slow myopia progression by 70% with significantly fewer side effects.

For example, if a child becomes near-sighted at the age of six, it’s common for her myopia to progress by 1.00 dioptre per year. By the age of 12 she would have developed a myopia of –6.00 dioptres, which is defined as high myopia. With the use of low-concentration atropine eye drops, the progression rate would be slowed to 0.30 dioptre per year. As she grows into adulthood, her myopia plateaus at around –3.00 dioptres, and such mild myopia does not increase her risk for any severe eye problems.

The team is launching a second phase of study to explore using low-concentration atropine eye drops to nip myopia in the bud. ‘Children with highly myopic parents are 12 times as likely to be myopic as those without myopic parents. The second phase of our study aims to prevent myopia onset in high-risk children.’ The simple act of putting in eye drops is able to instil a lifetime of visual well-being in the younger generation.

Another study of Dr. Yam’s has found that, in Hong Kong, where the disparity between the rich and the poor is glaring, children from low-income families are not likely to have their eye diseases detected and treated in time, which may result in permanent damage of vision. ‘I grew up in a low-income family too and understand if underprivileged children are given proper care and support, they can also have a great future. I hope to do something for them and give back to my community.’

He initiated a territory-wide eye care programme for school-age children. On weekends, they come to the CUHK Eye

Centre to have their eyes comprehensively examined for free. Since 2015, more than 20,000 low-income families have benefited from the programme. The participating doctors, nurses, opticians and medical students are all volunteers, galvanized by Dr. Yam’s selfless deeds. The programme also caught the attention of the Hong Kong Jockey Club Charities Trust, and was bestowed a large donation of HK\$44 million to bring in extra equipment and manpower to serve even more children. The service scheme has since been officially named CUHK Jockey Club Children’s Eye Care Programme.

Regarding adult eye care, Dr. Yam has the following advice to offer: First, follow the 30–30–30 rule: every 30 minutes spent reading, one should look away at something that is 30 feet away for 30 seconds. Second, the distance between the eyes and the smartphone or the book should be approximately 30cm; for tablet, 40cm; for desktop computer, 50cm. Third, The reading environment should be well-lit. Forth, blink more. To relieve dry eyes one can resort to preservative-free eye drops that come in single-use containers. But if the dryness and redness persist, one must go see the doctor.

As the Secretary General of the Asia-Pacific Strabismus and Paediatric Ophthalmology Society, Dr. Yam has been leading the development of vision care in children in the Asia-Pacific as a representative of Hong Kong. He has also taken up more than 20 roles in the field of ophthalmology and extended his helping hand to rural areas of Cambodia, Indonesia, Sichuan, Xinjiang and Yunan.

In a press handout about the newly elected Outstanding Young Persons, the word ‘keychain’ is entered into where Dr. Yam has chosen to best represent himself. He explained that a keychain not only epitomizes his childhood but also hints at his greatest ambition: ‘To achieve something is like opening a door. I may not be talented enough to be the key to a problem. But I can be a keychain that strings together the community, volunteers, doctors, donors and policy makers. Putting our efforts together, I hope the day will come when myopia disappears from the world.’

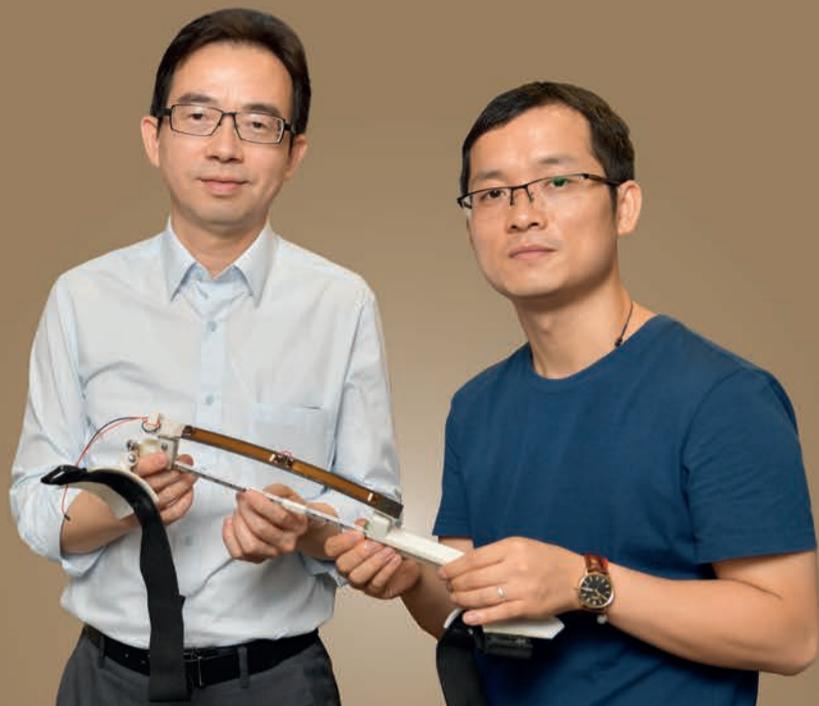
Christine N.

步步生電

廖維新將人體動能化作電力

The Force is with Us

Liao Wei-hsin harvests energy from human motion



在科技發達的現今世代，「低電量焦慮」成為不少人的夢魘。智能手機電量一點一滴流逝，小小的電池標誌變為紅色，我們便心驚膽跳。唯有及時「續命」——為手機挹注電力，我們才可鬆一口氣。機械與自動化工程學系主任廖維新教授（上圖左）帶領的研究團隊近日研發結合智能物料和機械設計的人體膝蓋能量採集器，將膝蓋活動的動能化為電力，讓我們隨時隨地透過走路充電，或能將我們的焦慮一掃而空。

「人體是能量寶庫，特別是動能，我們可以將之收集，轉化成電力。」能量採集器主要設計者、機械與自動化工程學系博士後研究員高飛（上圖右）稱。「人的膝關節比其他下肢關節如腳踝和髖關節等活動幅度更大，而且膝蓋大多沿人體垂直的矢狀面活動，使動能更易採集。」

專研人體動作的團隊成員巧用曲柄滑塊架構（圖一）設計人體膝蓋能量採集器，將膝關節的動能轉為電力。曲柄滑塊架構看似複雜，其實不然：採集器的兩端是兩條位於大腿和小腿的魔术貼紮帶，負責將裝置固定腿上。自大腿和小腿的紮帶會延伸大腿桿和小腿桿，兩者並於膝頭位置的鉸位會合。大腿桿與小腿桿於紮帶的另一端，則由長棍連繫，另有滑塊在上移動。

「我們行走時，腿部會屈曲和舒展，帶動滑塊往復移動，此時膝蓋的旋轉運動就會變為滑塊的直線運動。」廖教授解釋。

能量採集器的妙處不止於此：架構上拱有一條貼上智能物料的碳纖維帶，一端繫在大腿的紮帶，另一端固定在滑塊上。

當滑塊隨着我們的步伐往復移動，碳纖維帶和上面的智能物料便會隨之屈曲，繼而產生電力。

團隊使用的智能物料為壓電粗纖維複合材料，壓電即電能與機械能互換的現象，這裏指當受到外力如按壓和屈曲等，材料就會產生電力。碳纖維帶上，兩塊複合材料薄片並排黏貼，而材料亦可於市面購買，每塊約七百元。「大量生產的話，價錢可再調低。」廖教授道。

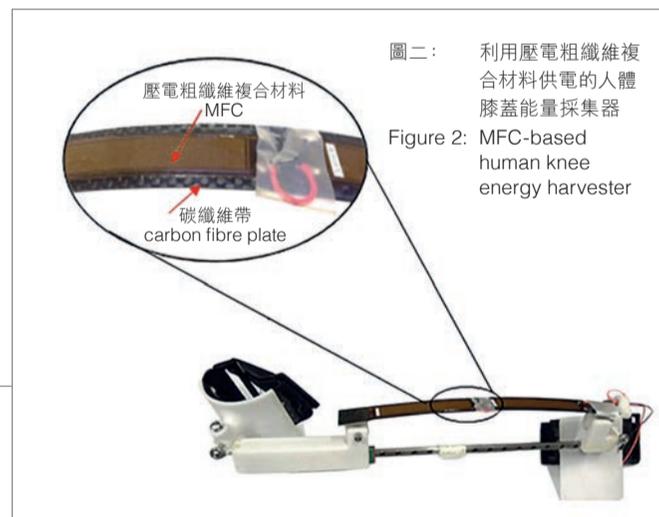
以平常人每小時行走四公里的速度計算，能量採集器能產生一點六毫瓦電力，即每秒一點六焦耳，足以應付健康檢測儀器和全球定位儀等小型裝置的電力需求。舉例來說，華為手環的耗電量平均為一毫瓦，故能量採集器足以令其運作不息。

「採集器採得的能量可被儲起，或利用物聯網技術連接到其他便攜和穿戴式裝置。它能就地採集和供應能源，解決電池電量有限的問題。比如登山時，我們不能隨處充電，此時我們便能自本身的動作取電，毋需仰賴電池。這能大大保障安全，遇到緊急情況也能派上用場。」廖教授說。

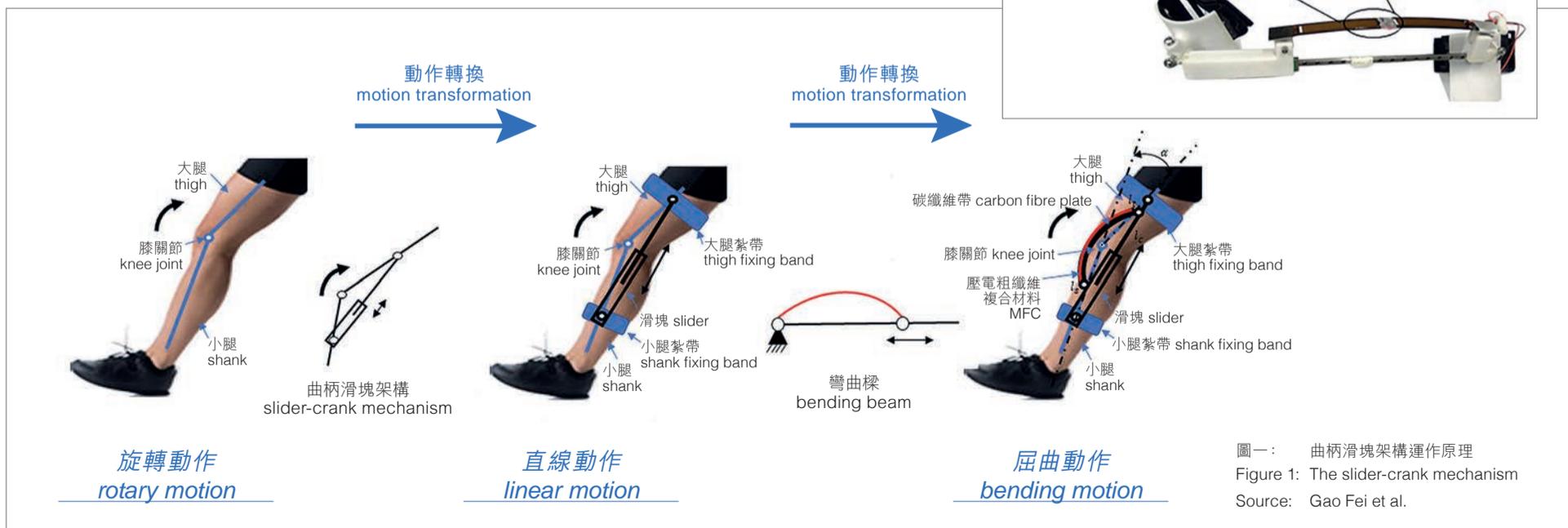
這充電法寶異常輕巧，重量只有三百零七克。「這應是現有能量採集器中最輕的，而且是首個結合智能物料和機械設計的裝置。」高博士稱。廖教授補充：「設計是重要一環——有複合材料，也要加上創新機械設計，採集器才能發揮效用。」

採集器的另一優勝之處，是它不會加重使用者的負擔。研究團隊曾進行實驗，比較平常步行和穿上採集器後步行的身體狀況，結果發現它不會增加我們的代謝消耗。團隊於紮帶用上球型鉸，使採集器涵蓋所有膝蓋動作。若於做劇烈運動如跑步和踢足球時穿上，產生的電量會更大。從高博士的即場示範看來，採集器易於穿戴，且十分舒適。

現時我們所見的能量採集器是第三代，共花五個月研發。團隊正研究從機械結構或智能物料的複合物組合着手，提升能源效率，即在同時間供應更多電力。他們亦會改善設計，使其更舒適，並力求減低成本。事實上，自能量採集器的研究於去年7月在《應用物理快訊》發表並獲列為特選文章，傳媒與商界就對此大表關注，電郵查詢如雪花飛來，更有生產商提議將採集器嵌入衣料之中。為此團隊正在美國和中國申請專利，預計兩年後，我們便可以在市場上購得採集器，享受源源不絕的電力，跟電量焦慮說再見。



圖二：利用壓電粗纖維複合材料供電的人體膝蓋能量採集器
Figure 2: MFC-based human knee energy harvester



圖一：曲柄滑塊架構運作原理
Figure 1: The slider-crank mechanism
Source: Gao Fei et al.

Anxiety over dying battery is a syndrome of our times. The fast dwindling life juice in that tiny battery icon on our smartphones fuels our fears, and it is only when we have managed to charge them our peace of mind is restored—actually, the pain caused by the low percentage feels so sharp and ubiquitous, few of us do not leave our phone plugged even when it hits the full charge. Thanks to the ingenious invention by mechanical engineers led by Prof. **Liao Wei-hsin** (left, top photo), chairman of Department of Mechanical and Automation Engineering, our paranoia about charging will soon come to an end. And the cure they discovered lies nowhere other than in our own knees; by donning the human knee energy harvester which flaunts the use of smart materials and an innovative design, we can duly capture the kinetic energy generated by the joint, have it converted into electricity and power electronics simply by walking, any time any place.

‘The human body is a rich source of energy, especially kinetic energy, which can be harvested for the generation of electricity,’ remarked Dr. **Gao Fei** (right, top photo), postdoctoral fellow in the Department of Mechanical and Automation Engineering who is the main inventor. ‘The human knee joint has a larger range of motion than other lower limb joints such as ankle and hip. Moreover, the knee’s motion primarily occurs in a sagittal plane, which makes the capture of kinetic energy by the harvester much easier.’

To capture the knee’s energy and convert it into electricity, the human motion researchers fashion their human knee energy harvester after the slider-crank mechanism (figure 1). To begin with, we have two fixing bands at the thigh and shank which fasten the device to our limb. From the thigh and shank fixing bands extend the thigh and shank links, respectively, which meet at a movable bearing at the knee. A linear guide, moreover, connects the thigh and shank links at their ends at the corresponding fixing bands, and a slider glides along it.

‘When walking, our leg flexes and extends, causing the slider to move back and forth. The rotary motion of the knee is

thus transformed to linear motion along the slider,’ explained Professor Liao.

And this is not the end of the story: a carbon fibre plate with smart materials on it arches over the design, with one end of it hinged on the thigh fixing band and another on the moving slider. The slider’s movement arising from our gait would cause the carbon fibre plate to bend and the smart materials on it would deform, converting the pressure it receives into electricity.

Such smart materials are macro-fibre composite (MFC) slices that are piezoelectric in nature, with piezoelectric referring to its ability to convert mechanical energy into electrical energy or vice versa. Here, it means the materials can generate electricity once they come across any mechanical effects, in this case pressure and deformation. Placed side by side on the bending beam, the two MFC slices are available on the market and cost \$700 each. ‘In mass production, the cost can be lowered,’ Professor Liao said.

At a normal walking speed of 4 km per hour, the MFC human knee energy harvester generates 1.6 milliwatts of power, i.e., 1.6 millijoules per second. This would be sufficient to power small devices such as health monitoring equipment and GPS devices. The Huawei smart band, to give you an idea, consumes one milliwatt on average. The harvester would therefore be able to power it.

‘The power generated by the harvester can either be stored, or put through to other portable and wearable appliances as in the Internet of Things. It offers a good solution to the battery problem, as it allows us to utilize energy locally. In mountaineering, for example, where charging may be a problem, we do not have to rely on batteries, as we can get energy direct from our own motion. It would be good for safety and emergency purposes,’ said the professor.

What’s more, this modern-day talaria is a lightweight one, weighing only 307g. ‘It should be the lightest among the current energy harvesters, and the first one to combine the strengths of smart materials and a mechanical structure,’ said

Dr. Gao. Professor Liao added, ‘The design is important—it is the MFC slices combined with the innovative design, a mechanical structure which makes it work.’

And there’s still one crowning feature: the invention produces energy at no cost to us. The research team had performed experiments of walking with and without the harvester, and found out it does not increase the users’ metabolic effort. Using ball joints at the bearings of the thigh and shank fixing bands, the harvester caters to all knee movements, issuing even more energy in intense activities like running and in soccer games. And as demonstrated by Dr. Gao on the spot, it is easy and comfortable to wear.

Taking five months to develop, the energy harvester we now see is the third generation, and the team is looking to improve its energy efficiency through altering its mechanical structure or the palette of composites in the slices. They also seek to enhance the design, increase its comfort and lower the cost. Indeed, after its publication as a featured article in *Applied Physics Letters*, a top journal in applied physics and in energy harvesting in July 2019, the team has been greeted with wide media and commercial interests, and enquiries are flying in for possibilities to commercialize the device, say, to integrate the design into clothing. With this in view, they are now filing patents in the US and China. And in two years’ time, we will see the prototype developed into a full-fledged product in the market, soothing our nerves and affording us the boon of streaming energy at no extra effort. 📷

Amy L.



學術探奇 / SCHOLARLY PURSUITS

無論是甚麼語言，一字一音，都盛載文化、肩負歷史；研究語言文字，就是感受文化、探索歷史。中國語言及文學系郭必之教授研究閩南語的文白異讀現象，把數百個異讀字逐一發掘，製成詞表，獲得2018至19年度青年學者研究成就。

文白異讀是漢語分支的特色，文讀音便是我們讀書時所使用的讀音，白讀音就是平時說話所用的讀音。以粵語為例，「驚慌」的「驚」是文讀音，讀ging¹；我們口語說的「好驚」，「驚」讀作geng¹，就是白讀音。

閩南語的文白異讀現象更普遍，牽涉的字超過一千五百個，而粵語的異讀字只不過三百個左右。閩南語的異讀發展亦更多元化，一個字可以有多個白讀音，而且能區別字義。「節」字文讀音是tsiat⁷，白讀音則有兩個：中秋節的「節」作tsue²⁷，關節的「節」作tsat⁷。更特別的是，閩南語可以用同一個字的文白異讀構詞，例如指食物的「食食 (tsia²⁸ sit⁸)」，前字白讀，後字文讀，而表示食指的「指指 (ki³ tsai³)」，兩個「指」字是白讀的不同形式。

文白異讀現象，可以溯源至隋唐以後。中國北方是歷朝帝都所在，北方話被視為權威。南方各地的民眾模仿北方話讀書認字，於是形成文讀音，各地固有的讀音則是白讀音。因此，白讀的歷史比文讀更為久遠。郭教授說：「閩南語的歷史比粵語更長，而且地理上遠離北方，讀音跟北方話的差距更大，文白異讀的情況更普遍。」



Photo by ISO

文白異讀面面觀

Identical in Shape,
but not in Sound

現時全球約有五千萬人以閩南語為母語，集中在福建省東南部、廣東省潮汕地區和雷州半島、海南沿岸、浙江省東南部，以及台灣。香港的原住民中，也有一小部分人說閩南語。

郭教授並非祖籍福建，母語也不是閩南語，而且是傳統語言文字學出身，研究路上突然轉換跑道，源於老師張雙慶教授的薰陶。張教授在研究期間收集了大量閩南語料，一直未發表，郭教授便運用這些語料展開研究。然而，單靠前人的成果

並不足夠。郭教授接連親赴汕頭和廈門調查，記錄數百個異讀字，並記下這些字在詞彙層面上的組合。

本身是中大粵語研究中心主任的郭教授，也研究粵語、客家語等南方語言，閩南語只是研究計劃的一部分。他期望進一步探索各種南方語言的形成過程及它們之間的關係。 📷



掃描閱讀全文

M. Mak

榜上友名 / Roll Call Alum

金融科技近年大有進展，虛擬銀行亦在香港興起。2019年，八間虛擬銀行獲香港金融管理局發牌，富融銀行是其中之一。這間銀行的市務總裁一職，落在雷紹麟身上。

一路走來，這名充滿活力的高級管理人員曾涉足多個行業。他出身於中大物理系，2004年畢業後加入港龍航空，由管理見習生做起。2006年，港龍與國泰航空合併。他改到後者工作，繼續磨練自己的管理技巧。2019年任職於富融前，他在亞洲萬里通當了三年營運總裁。

從航空界跨進銀行業，雷紹麟似乎別開蹊徑。但對這個管理人來說，兩者其實大同小異，關鍵都在聯絡各界、推廣業務。虛擬銀行面臨的挑戰之一，是吸納銀行業內乃至業外的人才。雷紹麟以自己的銀行為例，指他們有在傳統銀行界及金融科技界搜羅精英。身為市務總裁，雷紹麟不單要接洽顧客，也要為銀行內部制定措施，幫助來自各行各業的同事發揮所長。團隊上下通力合作，就是他這個協調專家的宏願。

雷紹麟既是個老練的行政人員，也是個積極參與公共管理的公民。他身負多項公職，服務的機構包括香港房屋委員會、工業貿易諮詢委員會、消費者委員會、競爭事務委員會和紀律人員薪俸及服務條件常務委員會。

訪問尾聲，他對中大人與非中大人的後進有此贈言：「大家固然要勤勉用功，但我也希望年輕人多學不同的東西、多接觸不同的人。我心目中的領導人才，須要具有體諒別人和使人和衷共濟的能力。大家要設身處地，理解他人所想。若單單着眼於彼此的差異，我們永遠不能達至共識。」

Driven by advances in Fintech, virtual banking is taking off in Hong Kong. In 2019, eight virtual banks were granted licenses by the Hong Kong Monetary Authority, of which Fusion Bank is one. Alan Lui is currently Chief Marketing Officer of Fusion Bank.

The dynamic executive has had a varied career path. He started off as a management trainee for Dragonair in 2004, the year he graduated from the Department of Physics of



皇牌協調師 The Ultimate Facilitator

CUHK. The merger between Dragonair and Cathay Pacific in 2006 landed Alan the position of management trainee with Cathay Pacific. Before joining Fusion Bank, he was the Chief Operating Officer of Asia Miles from 2016 to 2019.

The leap from the airline industry to banking seems to be a prodigious one, but to Alan, his core duty remains the same, and that is how to connect and engage different parties to popularize products or services.

One of the challenges faced by virtual banks is the engagement of staff from banking and non-banking backgrounds. To use his own bank as an example, they have assembled expertise from traditional banking and Fintech industries. As Chief Marketing Officer, Alan not only has to engage customers, he also has to design an internal process that allows people from different backgrounds to give their best. As a facilitator, he endeavours to drive his team to collaborate seamlessly.

Besides being a savvy senior executive, Alan is also a civic-

minded citizen heavily involved in public administration. He sits on several public bodies such as the Hong Kong Housing Authority, the Trade and Industry Advisory Board, the Consumer Council, the Competition Commission, and the Standing Committee on Disciplined Services Salaries and Conditions of Service.

He ended this interview with some advice to young people and CUHK students.

'While applying themselves is a given, I hope that they could diversify their learning experience, and interact with people of different backgrounds. To me, leadership is about empathizing with other people, as well as bringing people from diverse backgrounds to work together. You must understand why people see things as they do; if you only focus on each other's differences, you are never going to reach a consensus.'

Eliza Chan



掃描閱讀全文



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跟進校園環境安全事宜

Following up on Campus Environmental Safety

因應去年11月的衝突後或有污染物殘留校園，校方早前委託獨立認可實驗室於不同時間在校園各處抽取空氣、水及泥土樣本化驗，並先後於2019年12月6、12及20日公布檢測結果。根據目前收到的化驗報告，泥土、水和空氣樣本中污染物均沒超標，對健康不會產生明顯影響。

化驗針對的污染物包括二噁英、總氰化物、總多氯聯苯及多環芳烴。結果顯示，泥土樣本的污染物含量均低於香港環保署發出的《按風險釐定的土地污染整治標準的使用指引》中「按風險釐定的土壤污染整治標準（公園）」之數值，而水樣本污染物含量亦確定低於美國國家環境保護局建議的飲用水標準規定之最低數值。至於已收到的空氣檢測結果，其顯示之污染物含量亦在香港往年錄得的數值範圍內，並低於全球不同地區及世界衛生組織訂定的參考水平。

此外，大學亦委託另一獨立認可實驗室抽取環境空氣、表面擦拭及水樣本，檢驗校園內的催淚彈殘留物，包括簡稱CS的鄰-氯代苯亞甲基丙二腈。根據目前收到的化驗報告，各樣本中的污染物含量均低於報告限值，並不顯著。

餘下之空氣及催淚彈殘留物測試結果，大學收到後會盡快公布。

In response to the concerns in the aftermath of last November's conflicts over the level of harmful chemicals on campus, CUHK has appointed an independent accredited laboratory to collect air, water and soil samples at various locations and at different times on campus for testing. Some of the results were released on 6, 12 and 20 December 2019. The results that have come back so far show that the levels of contaminants in the soil, water and air samples are below their respective limits as required by the related reference documents, which means the health hazards of the contaminants in the soil and water samples are negligible.

The harmful chemicals tested include Dioxins, Cyanide, Polychlorinated Biphenyls (PCBs) and Polycyclic Aromatic Hydrocarbons (PAHs). Results have shown that the levels of these chemicals in the soil samples were below the Risk-Based Remediation Goals (RBRGs) for Soil (Public Parks) as stated in the *Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management* published by Hong Kong Environmental Protection Department. Neither was any significant amount of these

chemicals detected in the water samples according to the drinking water standards set by the United States Environmental Protection Agency. As for the air test results that have come back, the levels of contaminants were also below the reference levels stipulated by various regions around the globe and the World Health Organization, as well as within the ranges observed in Hong Kong in previous years.

Additionally, the University has appointed another independent accredited laboratory to test for tear gas residues including 2-Chlorobenzalmalonitril (commonly known as CS) by means of ambient air, surface swab and water sampling. The results that have come back so far show that the levels of tear gas residues were below reporting limits and not significant.

The remaining test results will be announced as soon as they are available.



掃描閱讀結果



Scan to read the result



校長膺美國解剖學家協會院士 Vice-Chancellor Conferred American Association of Anatomists Fellowship



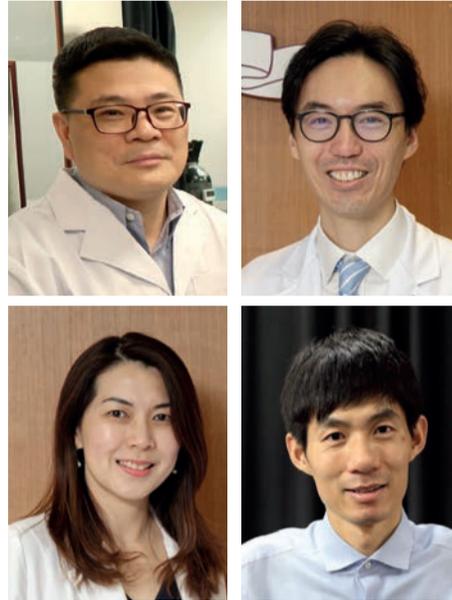
段崇智校長獲選為2019年度美國解剖學家協會院士，以表揚他在解剖科學尤於骨骼組織工程和再生醫學領域的貢獻。

段教授表示：「很榮幸獲頒授協會院士銜，並感謝我的研究團隊和合作夥伴。」他和研究團隊最近通過結合生物技術及幹細胞研究，開發了可修復及再生人體組織的轉化應用技術，並利用微型生物反應器的平台，製造了世上首個名為「微關節」的三維關節，以複製人類關節及測試治療關節炎的藥物。

Vice-Chancellor Prof. Rocky S. Tuan was named a Fellow of the American Association of Anatomists (AAA) 2019 in recognition of his contributions to anatomical sciences, particularly in the field of tissue engineering and regeneration.

Professor Tuan said, 'I am honoured to have the fellowship conferred on me by AAA. I would like to thank my research team and partners.' Professor Tuan and his research team have recently integrated biotechnology with their stem cell research and successfully developed translational applications for human tissues repair and regeneration. By making use of the microbioreactor platform, they have also engineered 'microJoint', the first-ever three-dimensional joint-on-a-chip, to replicate human articular joints and test potential therapeutic agents for osteoarthritis.

四學者獲裘槎科研獎 Four Scholars Receive Croucher Fellowships and Award



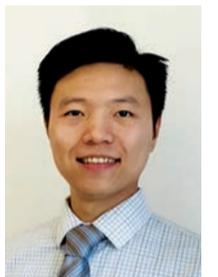
本校四位傑出學者憑藉卓越的研究成就獲裘槎基金會頒發獎項。物理系王建方教授（左上）榮獲「裘槎優秀科研者獎2020」，內科及藥物治療學系馬青雲教授（右上）和黃秀娟教授（左下）獲得「裘槎優秀醫學科研者獎2020」，而生物醫學工程學系周仁杰教授（右下）則獲頒「裘槎前瞻科研大獎2019」。

Four CUHK scholars were presented with prestigious awards from the Croucher Foundation for their excellent research achievements. Prof. Wang Jianfang (left, top) from the Department of Physics was awarded the Croucher Senior Research Fellowship 2020. Prof. Ronald C.W. Ma (right, top) and Prof. Ng Siew-chien (left, bottom), both from the Department of Medicine and Therapeutics, received the Croucher Senior Medical Research Fellowships 2020. Prof. Zhou Renjie (right, bottom) from the Department of Biomedical Engineering was awarded the Croucher Innovation Award 2019.

周博磊教授獲選為亞太區創新先鋒 Prof. Zhou Bolei as Top Innovator in Asia-Pacific

信息工程學系周博磊教授入選2020年 *MIT Technology Review* 三十五歲以下亞太區科技創新者之列。周教授開發的Class Activation Mapping及Network Dissection等創新技術有助科研人員和相關從業員更有效地利用人工智慧系統預測及洞察系統存在的問題，從而提高其可靠度，以應用於醫學圖像診斷、生物醫療保健及自動駕駛等領域。

Prof. Zhou Bolei of the Department of Information Engineering was named by the *MIT Technology Review* as one of the top innovators under the age of 35 in the Asia-Pacific region in 2020. Professor Zhou has developed innovative techniques such as Class Activation Mapping and Network Dissection to help researchers and practitioners in discerning model prediction and detecting mistakes made by the AI models which can be applied in fields including medical imaging, health care and autonomous driving.

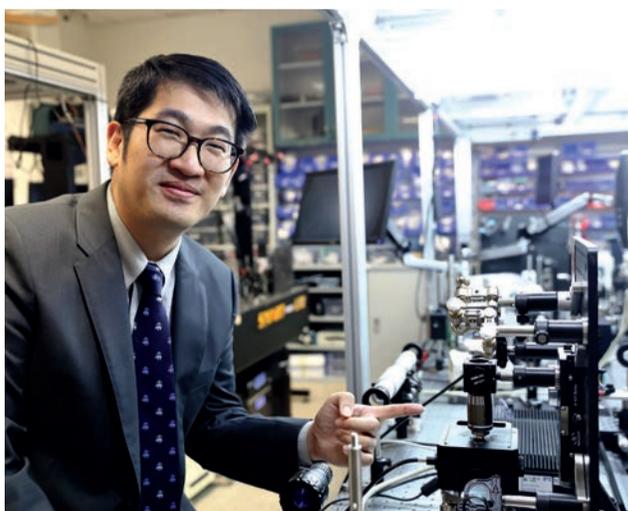


探索金融科技的新世界 Tapping into the World of FinTech

工程學院於2019年11月4日舉行題為「When Wall Street Met Main Street—Real vs Virtual Economy」研討會，探討金融科技的新發展及相關合作機遇。研討會由工程學院院長黃定發教授及商學院副院長（創新與影響力）張曉泉教授主禮。是次論壇吸引逾五百名業界人士、教授、研究員、政府及金融監管機構人員參與。

The Faculty of Engineering hosted a conference titled 'When Wall Street Met Main Street—Real vs Virtual Economy' on 4 November 2019 to examine the booming developments of financial technology (FinTech) and its associated collaboration opportunities. Officiated by Prof. Martin D.F. Wong, Dean of the Faculty of Engineering and Prof. Michael Zhang, Associate Dean (Innovation and Impact) of the Faculty of Business Administration, the conference was attended by more than 500 industry practitioners, professors, researchers, government officials and regulators.

3D打印新突破 Major Breakthrough in Nanoscale 3D Printing Technology



機械與自動化工程學系陳世祈教授及其團隊與美國勞倫斯利佛摩國家實驗室合作研發出「飛秒鐳射投影雙光子聚合光刻」(FP-TPL) 列印技術，引領3D打印邁進全新領域。研究成果已於 *Science* 發表。

有別於傳統的3D打印技術，FP-TPL利用新聚焦方法同時投影一百萬個光點在同一個焦面上，令列印速度提升數千至一萬倍，可大幅延長鐳射光源的壽命，間接令列印成本減低九成八。FP-TPL可用以製造複雜及大型的懸垂或倒勾結構，適用於高端納米科技、先進材料、醫療用微支架及藥物傳輸等。

A research team led by Prof. Chen Shih-chi, Department of Mechanical and Automation Engineering, collaborated with the Lawrence Livermore National Laboratory in the US and developed the Femtosecond Projection Two-photon Lithography (FP-TPL) printing technology, a groundbreaking discovery that brings nanoscale 3D printing into a brand new era. The achievement has been published in *Science*.

In comparison with the conventional nanoscale 3D printing technology, FP-TPL makes use of temporal focusing to project a million points simultaneously at the same focal plane for parallel nano-writing, scaling up the fabrication speed by 1,000–10,000 times. This in turn lengthens the laser lifetime extensively and indirectly reduces the average printing cost by 98%. FP-TPL can benefit many fields, ranging from nanotechnology to advanced functional materials, from micro-robotics to drug delivery devices, as it allows the fabrication of large-scale complex and overhanging structures.



九教授膺全球最廣獲徵引研究員

Nine Professors Honoured as Most Highly Cited Researchers

中大九位教授獲Clarivate Analytics選為「2019年最廣獲徵引研究人員」，以表揚他們在自身研究領域和出版年份中獲徵引次數排名全球前百分之一，九位教授名單如下：

Nine CUHK professors made the list of 'Highly Cited Researchers 2019' as announced by Clarivate Analytics. The honour is given to researchers who produced multiple papers that rank in the top 1% worldwide by citations in their respective fields of study and year of publication. They are:

- 區大衛教授 Prof. David Ahlstrom
管理學系署理系主任 Acting Chairman, Department of Management
- 陳力元教授 Prof. Chan Lik-yuen Henry
醫學院副院長(外務) Associate Dean (External Affairs), Faculty of Medicine
- 關美寶教授 Prof. Kwan Mei-po
太空與地球信息科學研究所所長 Director, Institute of Space and Earth Information Science
- 莫樹錦教授 Prof. Tony Mok
腫瘤學系系主任 Chairman, Department of Clinical Oncology
- 沈祖堯教授 Prof. Joseph J.Y. Sung
莫慶堯醫學講座教授 Mok Hing Yiu Professor of Medicine
- 汪正平教授 Prof. Wong Ching-ping
電子工程學系榮休教授 Emeritus Professor, Department of Electronic Engineering
- 黃煒樂教授 Prof. Wong Wai-sun Vincent
內科及藥物治療學系腸胃及肝臟科主任 Head of Division of Gastroenterology and Hepatology, Department of Medicine and Therapeutics
- 余濟美教授 Prof. Jimmy C.M. Yu
卓敏化學教授 Choh-Ming Li Professor of Chemistry
- 李誠教授 Prof. Lee Sing
精神科學系(名譽)臨床教授 Clinical Professor (Honorary), Department of Psychiatry

交流中藥發展心得

Exchanging Views in Chinese Medicine Development

中大李達三葉耀珍中醫藥研究發展中心聯同香港高等教育科技學院、香港中藥師協會、澳門中藥師協會、廣東省藥師協會及廣東省藥學會於2019年12月5至9日合辦「粵港澳大灣區中藥藥劑專業交流團」。四十三名中藥業界人士參觀了大灣區內中藥材重鎮，包括江門新會陳皮和肇慶鼎湖芡實的的種植基地，以及廣州清平中藥市場。透過是次交流，參加者加深了對區內中藥業發展的認識，並提升其專業水平。

Co-organized by CUHK Li Dak Sum Yip Yio Chin R & D Centre for Chinese Medicine, Technological and Higher Education Institute of Hong Kong, Hong Kong Chinese Medicine Pharmacist Association, Guangdong Pharmaceutical Association and Association of Pharmacists of Chinese Medicine of Macau, the Guangdong-Hong Kong-Macau Greater Bay Area study tour was held from 5 to 9 December 2019. A total of 43 Chinese medicine pharmaceutical professionals visited the Chinese medicinal plantation bases, including 'Chen Pi' in Xinhui District of Jianmen and 'Qian Shi' in Dinghu of Zhaoqing, and Qingping Traditional Chinese Medicine Market in Guangzhou. The tour further strengthened the participants' understanding on the development of Chinese medicine in the Greater Bay Area, as well as enhanced their professional standards.

中大研究顯示港生能力列世界前茅

CUHK Study Proves Local Students Top Global Assessment

中大教育數據研究中心獲學生能力國際評估計劃委託，評估香港十五歲學生在閱讀、數學及科學三方面的表現，2018年的結果於2019年12月3日公布。在七十九個參與研究的國家或經濟體系中，香港學生持續表現出色，於閱讀和數學能力均取得全球第四名，科學能力則排名全球第九。

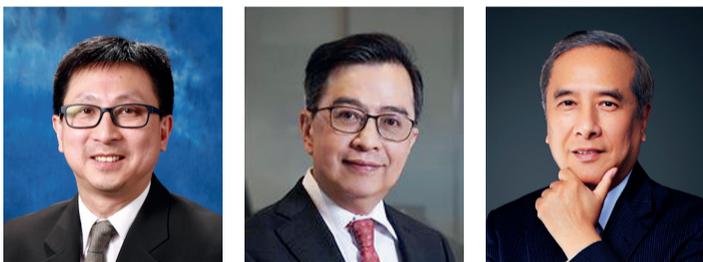
Commissioned by the Programme for the International Student Assessment to conduct survey on 15-year-old students' competence in reading, mathematical and science literacy, the CUHK's EdDataX Research Centre released the results of 2018 on 3 December 2019. Among the 79 participating countries/economies, Hong Kong students once again topped the league table and attained outstanding performance this year, ranking fourth in both reading and mathematics and ninth in science.

宣布事項 / ANNOUNCEMENTS



人事任命

Council Members



大學校董

Council Members

姓名 Name	任期 Appointment Period
新任 New	李浩文教授(左) Prof. Jimmy H.M. Lee (left) 10.9.2019 – 31.8.2022
續任 Re-appointed	盧煜明教授 Prof. Dennis Y.M. Lo 10.9.2019 – 31.8.2022

常務副校長/大學副校長/書院院長/學院院長

Provost / Pro-Vice-Chancellor / College Head / Faculty Dean

姓名 Name	任期 Appointment Period
新任 New	常務副校長 Provost 陳金樑教授(中) Prof. Chan Kam-leung Alan (centre) 1.1.2020 – 31.12.2024
續任 Re-appointed	副校長 Pro-Vice-Chancellor 霍泰輝教授 Prof. Fok Tai-fai 1.1.2020 – 31.7.2021
續任 Re-appointed	聯合書院院長 Head, United College 余濟美教授 Prof. Jimmy C.M. Yu 1.8.2019 – 31.7.2022
新任 New	工商管理學院院長 Dean, Faculty of Business Administration 周林教授(右) Prof. Zhou Lin (right) 9.12.2019 – 8.12.2024

榮休教授

Emeritus Professor

市場學系許敬文教授獲頒榮休教授名銜，由2020年1月1日起生效。

Prof. Michael K.M. Hui of the Department of Marketing has been awarded the title of Emeritus Professor with effect from 1 January 2020.



公積金計劃投資回報成績

Investment Returns of Staff Superannuation Scheme

基金 Fund	11.2019		1.12.2018 – 30.11.2019	
	未經審核數據 Unaudited	指標回報 Benchmark Return	未經審核數據 Unaudited	指標回報 Benchmark Return
增長 Growth	1.51%	0.91%	11.86%	10.61%
平衡 Balanced	0.99%	0.54%	11.38%	10.62%
穩定 Stable	-0.19%	-0.55%	8.21%	9.22%
香港股票 HK Equity	-0.73%	-1.20%	4.20%	3.78%
香港指數 HK Index-linked	-2.14%	-1.98%	2.38%	3.00%
A50中國指數 A50 China Tracker	-2.37%	-2.22%	22.21%	25.60%
港元銀行存款 HKD Bank Deposit	0.20%	0.09%	2.32%	1.01%
美元銀行存款 USD Bank Deposit*	0.06%	-0.05%	3.03%	1.17%
澳元銀行存款 AUD Bank Deposit*	-1.85%	-1.90%	-5.60%	-6.69%
歐元銀行存款 EUR Bank Deposit*	-1.32%	-1.29%	-2.67%	-2.59%
人民幣銀行存款 RMB Bank Deposit*	0.20%	0.12%	0.90%	0.25%

強積金數據請參閱：

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

* 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

雅共賞 / ARTICULATION



花開富貴 Peonies in Bloom

葉靈鳳曾寫過一篇叫〈牡丹花在香港〉的小文章，說到從前過農曆年時，廣州花販為了適應西關富戶和十八甫大商家的過年要求，會把從北方來的牡丹放在密室內用火烘催開。據說後來香港年宵花市為數不多卻萬眾期待的牡丹盆栽也用此法，因此也有同樣問題：象徵富貴的牡丹枝幹光禿，生不出綠葉扶持，營養不良，貌不驚人，但價錢倒是相當驚人。

價貴，源於物稀。原來這國色天香的富貴嬌客怕熱，怕烈日直射，需要地勢高燥、排水良好的中性沙壤土，故難以在嶺南潮濕的氣候健康生長。葉靈鳳甚至覺得因為廣東不產牡丹，廣東畫家也畫不好牡丹，畫出來「葉子像菊，花像丁香（即上海人所謂康乃馨），而且是草本的」。

到底牡丹和菊的葉子、丁香與牡丹的花有何不同？牡丹為甚麼不是草本植物？廣東畫家又是否真的畫不好牡丹呢？正好文物館最近出版的圖錄《北山汲古：中國繪畫》中就有一開清末廣東畫家居廉畫的牡丹，我們趁機訪問了中大胡秀英植物標本館館長劉大偉博士，展開了一場「跨界藝談」。

劉博士表示牡丹 (*Paeonia suffruticosa* Andrews) 和菊花 (*Dendranthema morifolium* (Ramat.) Tzvel.) 的葉子都不是兩兩相對的，而是「互生」，即在葉柄上交錯着生，所以確有共通，而且某些品種的菊葉也像牡丹葉一樣，是由多片小葉相連成一組組的複葉，要辨別得觀察毛被、葉脈、氣味等，畫面上未必能呈現，所以很難說像菊葉的牡丹葉就一

定不準確。至於花，葉靈鳳說的「丁香」應是石竹科的康乃馨 (*Dianthus caryophyllus* L.) 或其近親變種。它和牡丹一樣，是透過人工培植形成比較具觀賞價值的、層層疊疊的重瓣，而且都是單獨生在枝頭頂端的。兩者的花分別主要在兩方面：

一是牡丹的花較大，可達十七厘米，而康乃馨的花及花瓣通常都不達十厘米；二是康乃馨具管狀的花萼而牡丹的花萼是片狀分離的。因為角度和構圖的關係，這兩點在居廉畫上不算表現得很清晰，但花型基本上也沒有錯誤。畫中的枝幹是木質及較直立的，這點也是準確的，牡丹是木本植物，和莖部草質的草本植物不同。

與標本館收藏的著名植物科學畫家曾孝濂教授所繪牡丹比較，曾教授的作品連雄蕊也悉數畫出，是深具科學性的藝術作品，但居廉的畫從互生複葉到單生枝端的重瓣花也有相應呈現，以旨在追求情趣的國畫來說其實也相當準確。這得歸功於居派繪畫提倡「宋人骨法元人韻」，即融會宋畫院細緻寫實的風格與元人畫重神韻意趣的表達方式。居廉與堂兄居巢修築的十香園極注重花木的栽種，正是方便其深入觀察自然以寫生。就不知居廉與弟子在十香園合影的歷史照片中，讓眾人甘於成為背景板的盆栽會否就是這南方稀客牡丹花？

Heidi Wong



▲ 曾孝濂 (1939-) 《牡丹》，2017



▲ 居廉 (1828-1904) 《花卉草蟲冊》之八，1893



▲ 居廉與弟子在十香園合影

康健型格 / HEALTH MATTERS



不時不食 Fast Thoughts on Diet

I have not eaten in over 17 hours.

My stomach isn't growling; I am not hungry. I only hear the clacking of my keyboard. Words fall from my fingertips quickly and with precision. I feel alert and focused. My colleagues invited me to lunch though I declined, instead opting to continue drinking the coffee beside me—ink-black, devoid of milk and sugar—to keep my caloric intake at zero. Each day, I have my first calories at 2:00 pm and my last calories just before 8:00 pm, giving me a six-hour eating window. Besides coffee and tea, I abstain from food and drink for 18 hours per day. And no—I am not doing this to punish myself.

This is intermittent fasting, or time-restricted eating. Calling this a 'diet' is a misnomer. I'm far too fond of chocolate chip cookies to adhere to a diet. Intermittent fasting is less about *what* you eat and more about *when* you eat. You eat as you normally would, but within certain time parameters.

Advocacy for intermittent fasting from high-profile celebrities like **Beyoncé**, **Hugh Jackman** and others have helped intermittent fasting gain traction. *Forbes* included it on their list of 2018's trendiest health choices. Notwithstanding star-studded practitioners, intermittent fasting is merely being popularized, not discovered. It isn't a new idea. This habit has been a mainstay in various religious practices since the dawn of civilization. In Buddhism, certain practices required monks to fast after lunch until the following morning and, similarly, abstaining from food during 'daylight hours' is noted in the Old Testament.

Science backs the Buddha and Jesus. In 2018, an article published in *Cell Metabolism* found evidence of improved insulin levels, blood pressure, and weight-loss for a group of subjects participating in time-restricted eating. A paper in *PubMed* posited that this method can reduce inflammation and slow cell aging (cellular senescence). Both studies changed little about *what* was consumed—the focal variable was *when*.

The word 'fasting' inspires fear in many, and any notion of dieting usually sends crowds to the exits. But intermittent fasting is more lifestyle-friendly than you may presume. The most popular method, 16/8, includes a 16-hour fast and eight-hour eating window. For example, if you stop eating at 8:30 pm you would have lunch at the very regular hour of 12:30 pm the following afternoon. Simply put, this entails skipping breakfast and eliminating late-night snacking.

I have been intermittent fasting for some years now, since my days in university. As a student, it helped streamline my fitness, mental clarity, and productivity—pillars of success for the university lifestyle. I would go about my morning lectures and assignments without giving a thought to food. It fitted into my lifestyle and simplified my routine. I didn't have to focus on chopping, boiling, microwaving, or scrambling anything for the first half of my day, resulting in more energy for my studies. My roommates adopted the lifestyle too. Together, we happily avoided the breakfast rush in the school cafeteria and instead had more time to prepare for classes (or more time to recover from the antics of the previous night).

Fasting has remained a convenience during my time as a CUHK staff member: I still hold the luxury of avoiding the morning breakfast rush, and even my sleep schedule



benefits—I never sneak around my kitchen late at night to quell cravings and I can sleep in without worrying about eating before work.

Intermittent fasting, for myself, has been a valuable practice in mindfulness. It teaches self-discipline, short-term sacrifice for long-term benefits, and gratitude. I've learned to only eat until satiated, rather than gorging myself in a fit of boredom, or only because the television is on. I appreciate my meals and avoid eating for the sake of eating—something that plagues us more often than we may admit.

A shorter, 12-hour fast is a viable starting point to ease into intermittent fasting before increasing to a 14- or 16-hour fast. It can help to try one or two days per week at first to determine efficacy and personal fit.

Like all new habits, intermittent fasting should be implemented gradually, with prudence, and in concert with your lifestyle. This shouldn't take on the role of tyrant—find a balance and personalize the parameters to your schedule. Don't slow your progress—go *fast*.

Phil Rosen

的 矢 錄 / REMARKABLES



'Starting off from developing a non-invasive prenatal test for Down syndrome, to applying the technology onto cancer screening for early diagnosis, our team hopes that the technology can be further applied to other areas and benefit more patients.'



Prof. Rossa Chiu,
Associate Dean (Development) of Medicine and Choh-Ming Li Professor of Chemical Pathology, on being selected as one of the top translational researchers by *Nature Biotechnology*

'This award is recognition of our research at an early stage. With the research funds, our team can fully focus on cutting-edge research development that has a longer-term impact.'

Prof. Zhou Renjie,
Department of Biomedical Engineering, on being awarded the Croucher Innovation Award 2019

p.07

「人類永遠有一種靈活性，是機械人無法取代的。」

2019年教資會傑出教學獎（新晉教學人員）得主、機械與自動化工程學系劉達銘教授（〈訪談錄：中大研究自動化工程學者劉達銘〉，《信報財經新聞》，2019年12月18日）

'The future of **anatomical science and biomedical science** is highly promising and I look forward to **strengthening cross-regional and inter-disciplinary collaborations** at CUHK to bring a better future to human health.'



Prof. Rocky S. Tuan,
Vice-Chancellor and President, on being conferred Fellow of American Association of Anatomists

p.07

'We want to show that Hong Kong's scientific research and technology can make a difference to the global medical community ... We will continue to push forward our research and translate the discoveries for the good of humankind, to improve their health and wellbeing.'



Prof. Dennis Lo Yuk-ming,
Associate Dean (Research) of Medicine and Chairman of the Department of Chemical Pathology, on being named by *Nature Biotechnology* a top translational researcher three years in a row and being the first Chinese recipient of the Fudan-Zhongzhi Science Award

'Where charging may be a problem, we do not have to rely on batteries, as we can get energy direct from our own motion. It would be good for safety and emergency purposes.'



Prof. Liao Wei-hsin,
Chairman of Department of Mechanical and Automation Engineering, explains how the human knee harvester generates energy

p.04

「黑暗可以比死更令人恐懼。眼科醫生能助人從黑暗走進光明，很有意義。」



香港十大傑出青年、眼科及視覺科學學系任卓昇教授

p.02

「很多香港及國際大企業都在不斷拓展中國市場，因此極需要懂得中國法律及法規的專才協助拓展業務，選修中國商業法的學員正好具備這些專業知識。」

法學碩士課程主任**Anatole Boute**教授
〈中大法律學院研究生課程緊貼市場狀況 配合就業需要〉，
《香港經濟日報》，2019年12月12日

