

Spring/Summer 2015 ISSUE 12 第十二期

umagazine

澳大新語

自創舞台 音符傳遍校園 UM – Young Musicians' Playground



癌症研究
填補澳門空白
Filling the Gap in
Cancer Research in Macao



「以科研貢獻世界。」
澳門電力電子專家林智聲
Made-in-UM Power Quality Compensator
Macao's Power Electronics Expert Lam Chi Seng

編者的話 *Editor's Words*

在大學四年，學生除了要打下紮實的專業知識外，也要把握課堂外的學習機會，參與校內多元化的活動，例如藝術、音樂、演講、運動等等，發揮專業以外的其它才能。澳大倡導的「四位一體」教育模式中的社群教育，就是要為學生打造一個課堂以外的全天候學習環境，讓校園每個角落都成為學生展現天賦的舞台。

今期，我們走進學生的音樂世界，看看澳大如何利用條件優厚的環境營造樂韻處處的校園。同時採訪剛奪世界紙飛機大賽亞軍的馬英和全國英語演講比賽冠軍的李珊珊，述說他們如何在個人努力、教練和老師的支持下一步步踏上耀眼的頒獎台。

每個科學家都希望能夠通過研究改善人類的生活。九年前，澳大研發了首部「澳門製造」的低成本及低損耗電流質量補償省電裝置，為節省能源做出貢獻，第三代的研究成果已推出市場測試並取得國家和美國的專利。我們專訪了研究團隊成員之一、澳門電力電子專家林智聲博士，暢談從零開始的研發故事。癌症已成人類的致命殺手，健康科學學院將癌症視為研究的重中之重。究竟澳大的科學家如何進行有關的醫學研究，填補澳門癌症研究的空白？

款客服服務及博彩管理學士學位課程和澳大博彩研究所為澳門培養了大量相關領域的管理人才，該課程近年因應澳門的發展需要而作出調整，而硬件實驗室的增設也讓學生從實踐中得到鍛煉。我們從不同角度瞭解課程的設計和研究項目，以及分析博企應承擔的社會責任。

另外，我們還邀請了副校長（學術）顧問楊光宗撰寫「牛津劍橋入學試題對教育的啟示」，廣邀澳大學者撰寫的「學院專欄」，今期將探討翻譯學和公眾心理健康的研究。

Learning need not be confined to the classroom. Every moment outside the classroom has the potential to teach students something. Community and peer education, which is part of the '4-in-1' model of education at the University of Macau (UM), was designed precisely for the purpose of turning every moment outside the classroom into a teachable moment, so as to help students discover their passion and talents and achieve well-rounded development.

In this issue, we tell the stories of some talented UM students—young musicians, a national speaking competition champion, and the first runner-up in a national paper plane contest. Their stories are touching examples of how doing those things that make your heart sing, speaking up for what you believe in, and letting your dreams fly, will not only make you a happier person, but will make achieving success a much more fulfilling journey.

For scientists, one of the most fulfilling experiences is to improve people's lives through their research. And this is exactly what Dr Lam Chi Seng and Prof Chuxia Deng hope to achieve. Dr Lam shares how the 'made-in-UM' third-generation low-cost and low-loss power quality compensator, which has been granted patents in China and the United States, can help to significantly reduce energy waste and contribute to environmental protection. Prof Deng, dean of the Faculty of Health Sciences, discloses how precision medicine holds the promise for reducing cancer-related mortality in Macao.

We also take an in-depth look at the Bachelor of Science in Hospitality and Gaming Management programme and the Institute for the Study of Commercial Gaming (ISCG), as well as the unique Mock Casino and MICE Laboratory in the Faculty of Business Administration. We discuss how the programme and the ISCG help train management professionals for the gaming industry and what social responsibility gaming operators should take on.

Other interesting topics covered in this issue include public mental health, the cognitive process of translation and interpreting, and the meaning of education.

We hope you enjoy reading this issue of *umagazine* as much as we enjoyed producing it for you.

張惠琴 Katrina Cheong

Spring/Summer 2015 <<Issue 12 第十二期 >>

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出版 Publisher
University of Macau
ISSN: 2077-2491

澳大新語
umagazine

是澳門大學之官方刊物，每年出版兩期，旨在報導教學、科研及大學發展的最新動向。
is a biannual publication of the University of Macau. It aims to provide information on the latest development of the university in teaching, research and other areas.

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自創舞台 音符傳遍校園

UM — Young Musicians' Playground

文 Text | 余偉業 Kelvin U 圖 Photo | 譚金榮、張愛華、部分由受訪者提供 Eric Tam, Ella Cheong, with some provided by the interviewees
筆錄Transcription | 校園記者馮穎怡、譚濤、謝成盛 UM Reporters Chloe Fung, Terrence Tan, Jason Tse

輕快的結他聲，倚湖畔徐徐揚起；學生不羈的演奏，彷彿有魔力似的黏住了途人的腳步，為忙碌的學習添上了一抹色彩。

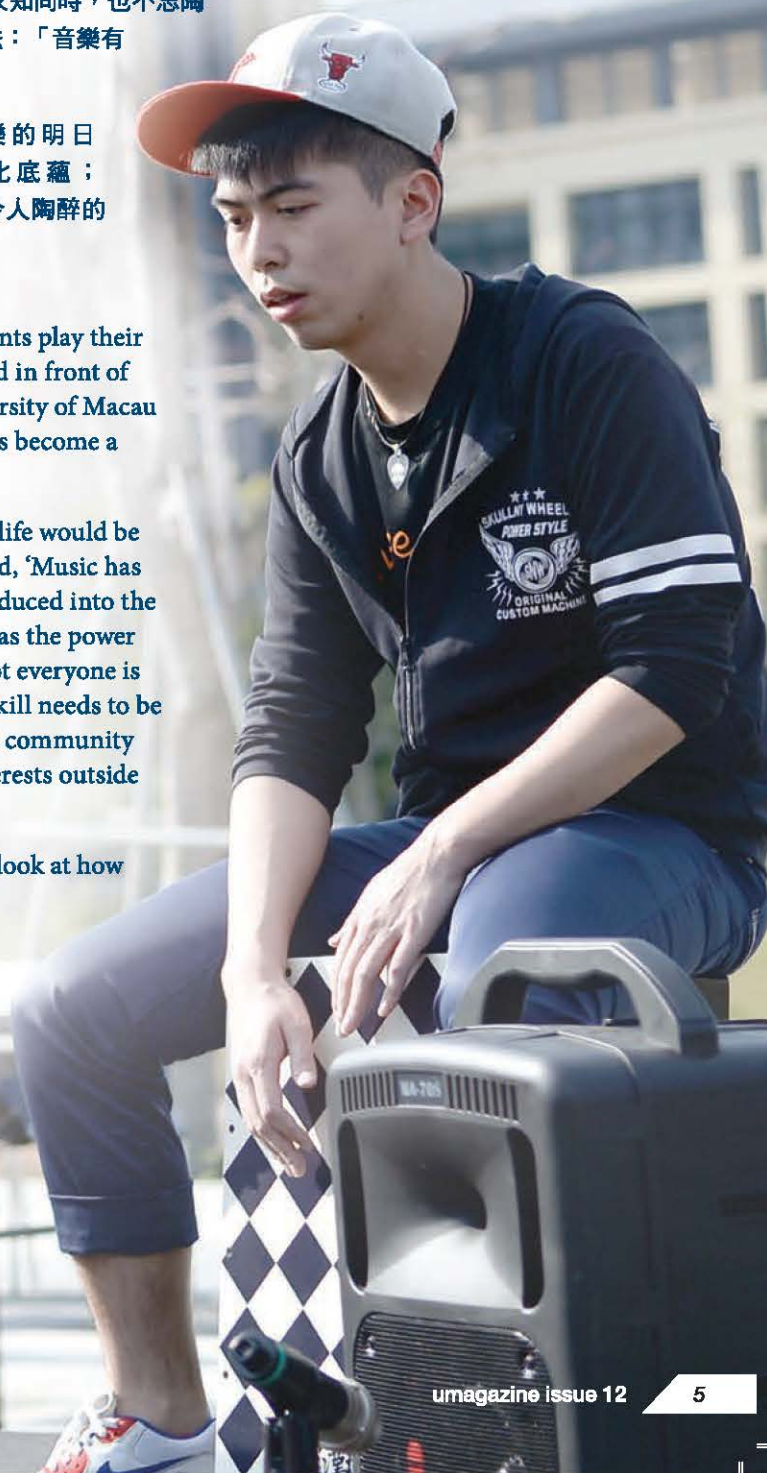
「沒有音樂，生命是沒有價值的。」德國著名哲學家尼采曾這樣說。有了音樂，心靈長出了翅膀，情感得以飛翔，生活扣人心弦。可是，音樂修養並非與生俱來，而是耳濡目染，從欣賞和學習中一步一步培養起來。澳門大學在社群教育中也深諳這道理，大力鼓勵學生勤奮求知同時，也不忘陶冶自己的情操。這恰好呼應着古希臘偉大哲學家阿里士多德的想法：「音樂有一種形成性格的力量，因此應列入年輕人的教育之中。」

今期《澳大新語》走進學生的音樂世界，訪尋校內音樂的明日之星，看他們如何從玩音樂來塑造堅毅人格、深化文化底蘊；也從校內設施、資源投放、住宿式書院制度探討澳大如何樹立令人陶醉的音樂氛圍，多方位打造樂韻處處的校園。

The mellow sound of music arises in the distance. Several students play their guitars by the lake, oblivious to the small crowd that has formed in front of them. Such scenes are observed increasingly often on the University of Macau (UM) campus, leading some observers to comment that UM has become a playground for young musicians.

The German philosopher Nietzsche once said, 'Without music, life would be a mistake.' The great Greek philosopher Aristotle once remarked, 'Music has a power of forming the character, and should therefore be introduced into the education of the young'. It is widely acknowledged that music has the power to enrich people's lives and nourish their mind and soul. But not everyone is born with musical talent. For most people, musical talent and skill needs to be cultivated, and one of the most important purposes of peer and community education at UM is to encourage students to pursue artistic interests outside their studies.

In this issue, we tell the stories of young musicians at UM, and look at how UM and the students work together to create a vibrant musical atmosphere on campus.



音樂後起之秀

Promising Young Musicians

校園湖邊一隅，一位女同學以纖秀的左手穩撐着中提琴，輕巧的右臂揮灑自如地運弓，她的演奏充滿了動人的生命力，令聽者陶醉。這位樂手叫林靜雯（Ivy），就讀工商管理學院一年級，是澳大弦樂團一員，曾多次代表澳門遠赴歐美、亞洲各地演出。

A girl stands by the lake, her eyes half-closed and her head tilted towards the viola she cradles in one arm. The bow in her right hand darts across the strings with a fluid motion, almost as if it has a life of its own. The violist is Ivy, a first-year student from the Faculty of Business Administration and a member of the UM String Orchestra. She has represented Macao at various events in Europe, the United States, and Asia.



加入校隊

Ivy 在讀中學時已考獲皇家音樂學院八級中提琴證書，在2014年澳門青年音樂比賽高級組別中獲中提琴獨奏優異獎。去年考入澳大後，Ivy的音樂世界彷彿開了一扇窗，賦予她許多音樂的靈感。昔日高中時她一週五天都會在澳門青年交響樂團練習，現在有了更大的校園空間，可以讓她在校園不同角落拉琴。Ivy 加入澳大弦樂團校隊

The String Orchestra

Ivy obtained the Associated Board of the Royal Schools of Music's (ABRSM) Grade 8 viola certification when she was in secondary school. She went on to win an award for her viola solo performance in the senior category at the Macao Young Musicians Competition 2014. After becoming a student at UM last year, she felt as if a new world opened for her, a world that gives her new musical inspiration. In high school, Ivy practiced five days a week at the Macao Youth Symphony Orchestra. Now, on the large new campus, there are many

後，發覺澳大臥虎藏龍。「在樂團裡，有來自不同音樂背景的學生，大家互相切磋，取長補短。這份音樂上的碰撞讓平日練習更多火花，更加好玩。」

在樂團，Ivy遇上了不少知音、同伴，也得到了師兄姊姊從旁指點，在無止境的音樂追求中闖蕩着。她有少少的心願，希望能使樂團的曲風更為多元。「多揣摩不同的曲目，可為日後的表演作好準備，迎接不同的機會，讓更多人認識我們。」

走小眾路線

選擇從小與中提琴為伴的，總是鳳毛麟角。Ivy 唸中學的時候，就只得她一位選這樂器。中提琴的弦比小提琴的要粗，拉奏時需要更用力才能順暢，一般的小女生也不會這樣自討苦吃。旁人看到Ivy出神入化地演繹琴音時，都不禁嘖嘖稱奇。她說：「中提琴音色柔和、深沉，較小提琴、大提琴的相對隱晦，這跟我的性格很相稱，所以我選它。在弦樂團中，若少了中提琴，很多曲子就拉不成。中提琴看似不重要，但沒了它卻不能成事。」



Ivy參加澳門青年音樂比賽
Ivy at the Macao Young Musicians Competition

different locations where she can practice her viola. She has also discovered a lot of gifted student musicians at the String Orchestra. 'The orchestra was formed by students from different backgrounds, which gives us an opportunity to learn from each other and makes it more fun to practice together,' Ivy says.

Through the orchestra, she has met like-minded friends and has received guidance from senior members. Ivy hopes to bring more variety to the orchestra in terms of music styles. 'Understanding and performing various styles of music can better prepare us for more opportunities that may arise in the future and make more people know us,' she says.

An Uncommon Choice of Instrument

Not many children would choose to learn the viola. Ivy was the only one in her school to play this instrument. The strings of a viola are thicker than those of a violin, and therefore require more effort to play nicely, making the instrument an uncommon choice for young girls. For this reason, Ivy's masterful performance often attracts the attention of a curious audience. 'The viola has a warm and dark timbre, with a relatively unassuming character compared to the violin and cello. I have chosen the viola as my instrument because it seems to be a good match for my personality. Despite its seemingly less important status in a string orchestra, the viola actually plays an extremely important role, because more often than not you can't play a symphony without a viola section.'

Play It Everywhere on Campus

Ivy has developed her own understanding of music appreciation after having performed at various locations around the world. 'Everyone should have the right to enjoy music, regardless of their educational levels and cultural backgrounds,' she says. In 2013, Ivy participated in a one-month music camp in Berlin, which gave her the opportunity to visit many music venues, including the renowned Konzerthaus Berlin where all musicians dream to give a performance. Yet, among all her experiences on that trip, the most unforgettable one was seeing musicians giving improvised street performances. 'There were accomplished musicians performing everywhere on the street,' recalls Ivy. 'They could all play a piece of Mozart without breaking a sweat.'

Ivy has since become a fan of street performance and hopes to bring this culture to Macao and UM. She gave her first street performance on the bustling street near the Ruins of St Paul's, which was surprisingly well received. She received song requests from the audience and even money for her performance. As a student, Ivy hopes to use music as a tool to bond UM members. When there are no classes, Ivy likes to practice the viola with friends at the Student Activity Centre. 'The university provides a good environment for students to pursue extracurricular interests,' Ivy says.

校園處處是舞台

常到海外演出的Ivy，對音樂追求有了不一樣的理解：「音樂應是與眾同樂、雅俗共賞。」她在2013年曾赴德國柏林接受為期一個月的音樂訓練營，走過大大小小不同的舞台，如最為殿堂級音樂人趨之若鶩的柏林音樂廳，然而最令她畢生難忘的是即興街頭演出。她說：「街上到處都是音樂人，而且造詣很高，隨便都可給你拉一首莫扎特。」

從德國回來後，她很想把這種文化帶來澳門、帶進澳大。她曾做過一個小實驗，在熙來攘往的澳門名勝大三巴作街頭表演，人們的反應意外地熱烈，還向她點歌和給錢。Ivy很希望在大學四年裡以音樂打動澳大人。在不用上課的日子裡，Ivy不時約音樂伙伴到學生活動中心借場練習，一起彈奏。「大學為我們締造一個良好的環境，發展學業以外的興趣。」

「演出前的練習最為辛苦，每天幾乎練習10小時。雖然很吃力，但能為聽眾帶來愉快的觀感，所有苦都是值得的。即使練習得很晚，我也可以很快就回到書院的家，好好睡上一覺，明天又可以再繼續。」Ivy笑著說。



Ivy說：「選擇中提琴是因為跟個人性格相近。」

Ivy chooses the viola as her instrument because she thinks it's a good match for her personality

'We need to practice almost ten hours a day before a show, which is the most tiring part. But it's worth it, because we know practice will help us deliver a great concert to the audience,' she says. 'Sometimes we have to practice till late at night, but I can quickly walk back to my residential college for a good night's sleep and get ready for the next day.'



Ivy在澳大弦樂團結識不少良朋知音

Ivy has made a lot of like-minded friends at UM String Orchestra

音樂舞台由自己創造

Create Your Own Stage

澳大學生一年一度的音樂盛會「聲音奏鳴曲」終於來到尾聲，然而在澳大大學會堂的舞台，卻被一股緊張的氣氛籠罩着。能歌擅舞的最後10強，始終難掩心裡的忐忑不安，畢竟他們誰都不願辜負走上這殿堂級舞台的機會。一聲響亮的「Good Show」劃破靜默，蕭紫珊（Silvestre）在賽前跟同學打氣，放鬆心情。Silvestre是澳大學生會音樂學會會長，是學前教育二年級學生，也是舉辦這場決賽的幕後功臣之一。她說：「澳大有很多音樂的明日之星，他們只缺一個舞台。」

It is the final performance of the 'Sonatina of Voice', a big annual musical competition for UM students. Backstage, the air is thick with tension. Nerves are tingling in each of the ten finalists, who have come a long way for this chance to shine on the stage. A cheerful 'Good Show' breaks the silence. Silvestre, co-organiser of the event, breezes in and instantly puts everyone at ease with her characteristic smile and words of encouragement. 'There are lots of rising stars here at UM. All they need is a stage to shine,' says Silvestre, a second-year pre-primary education major and president of the Music Society under the Students' Union.



爭取人生的舞台

樂手也好，歌手也好，每一位玩音樂的總有一份表演慾，Silvestre也很明白這一份心情。她四歲起就開始學鋼琴，現在當了業餘的鋼琴老師。她也學了豎琴八年，曾多次於本澳不同舞台演出，因此她很理解音樂人渴望一展所長，在台上發光發亮的心情。然而，籌辦一場音樂盛事絕非易事，「我和伙伴在過程中投入大量的私人時間，也遇到不同的挑戰。」但Silvestre不介意，因為她相信當驀然回首時，一切是值得的。

也許人大了，不能找藉口等待別人給你安排一切，大學生也得有承擔的精神。Silvestre說：

Be Your Own Star on Life's Stage

Silvestre began learning piano at the age of four, and now gives piano lessons on the side. She has also been studying the harp for eight years, and has given numerous performances in Macao. Being a music lover and performer herself, she understands that deep down every musical artist wants to shine on the stage. But organising musical events is never easy. 'For every event, my partners and I sacrificed a lot of personal time and met various challenges, but when we looked back, we knew it was all worth it,' she says.

Perhaps one of the signs of maturity is the realisation that you cannot always wait for other people to put everything on your plate. Like Silvestre said, 'University years are very short. We have to create our own stage.' In less than two years since joining the Music Society, she has organised eight concerts and some other large-scale events such

「大學生涯很短暫，自己的舞台就由自己來創。」在加入澳大音樂學會的短短兩年裡，她舉辦了八場音樂會、音樂講座、歌唱比賽等大型活動。「我可從表演者的角度，舉辦各類音樂活動，儘量滿足音樂人的需求，營造理想的表演空間。」



Silvestre習豎琴八年，多次於本澳不同舞台演出。
Silvestre has been studying the harp for eight years and has given various performances in Macao



Silvestre為同學創造演出的平台
Silvestre has organised numerous events for students to showcase their musical talent

as music competitions and lectures about music. Her experience as a performer gives her a unique advantage in knowing how to create the best possible stage for performers.

Like-minded Music Lovers

The musical events regularly held on the campus have brought together like-minded music lovers. Jin is one of them. A sophomore from the Department of Communication, Jin has represented UM at the Fourth Music Festival and a local inter-varsity singing competition, with impressive results. Last year, he won the championship at a singing competition organised by the Music



Jin（右）希望把音樂帶進學生的日常生活裡
Jin (right) hopes to make music a part of the students' everyday lives



Jin為構建音樂校園出力

Jin plays an active role in creating a musical atmosphere on campus

音樂同路人

在澳大校園裡，定期有不同的音樂活動上演，凝聚了很多熱愛音樂的人，彼此擴大自己的音樂圈子。來自傳播系二年級的青年歌手楊德仁（Jin）曾代表澳大參與第四屆流行音樂節、全澳大專院校歌唱大賽，戰績彪炳。去年，Jin在音樂學會舉辦的歌唱比賽中奪冠，因緣際遇下獲邀成為內閣一員，享受音樂之餘，也為構建音樂校園出一分力。

在台上釋放自己的那一份喜悅，總叫Jin回味無窮，因此他常牽頭作街頭演出，如在澳大開放日，他深情的歌聲迷倒了訪客和同學。

「只要敢演奏，就一定有觀眾。」

Silvestre 和 Jin 一直希望把音樂帶進學生的日常生活裡，而非局限於音樂廳內華麗演奏的形式，畢竟在新校園裡，設施多了，表演場地也相對多了、大了。Jin說：「昔日，就可能只有T平台給我當街頭演出，人流也不算太多。新校園把學生都聚在一起，戶外戶內盡是表演的場地，只要你敢演奏，就一定有觀眾。」

「來吧！一起為自己創造音樂的舞台，得到的絕對超過預期！」Jin說。

Society. Later he was invited to serve on the board of the Music Society, which gave him the opportunity to enjoy music and to help create a musical atmosphere on campus at the same time.

For Jin, there is nothing like the joy of giving himself entirely to music on the stage. So he seizes every opportunity to perform. His outdoor performance on the UM Open Day captivated many students and visitors.

‘As long as you dare to perform, you will have an audience.’

Silvestre and Jin believe that music should go beyond the setting of a concert hall and become a part of the students' everyday lives, especially given the increased space and facilities on the new campus. 'On the old campus, the first floor of the Tai Fung Building was practically the only place where I could perform, to a small crowd. On the new campus, there are lots of venues where we can perform, both indoors and outdoors. So as long as you dare to perform, you will have an audience,' Jin says. 'I really hope music lovers take the initiative to create their own stage, and what they will gain will definitely exceed their expectation.'





孕育音樂人的搖籃

Training Ground for Future Musicians

午休時，走過迂迴的長廊，聽到遠處木板傳來的音樂聲，學生們大都豎耳靜聽，雖然有時只是擦肩而過，但當聽到熟悉的樂韻，也隨心的跟著哼唱。也許，這是新校園的使命：讓藝術、音樂慢慢融入學生的生活，繼而感動生命。

The faint sound of music wafts in the air, reaching the ears of the students walking through the covered walkways during lunch break. Some pause to listen. Some hum along to the familiar melodies. This is the magic of music—it seems to be able to touch that tender part of our hearts and makes us better appreciate the beauty of life. And perhaps that is why both the university and students are making a great effort to create an atmosphere on the campus that is conducive to musical creativity.



練習演奏場地增加

在「春華追·憶」演奏會上，澳大中樂團演繹一首首充滿生活氣息的民歌，高亢悠揚的旋律令觀眾聽得如痴如醉。澳大中樂團精湛的演奏、悅耳的歌曲讓澳大學生事務長余小明博士回想起去年中樂團曾與北京大學民樂團同台演出，一同為澳大新校園的開幕、在近千名師生見證下，獻上一場精彩的視聽盛宴。

More Venues to Practice Music

At a concert held in April, the UM Chinese Music Orchestra delivered a sublime performance of folk music that enthralled the audience from beginning to end. Their performance also reminded Dr Peter Yu, dean of students, of another performance he attended last year, where the orchestra shared the stage with Peking University's Chinese Orchestra and performed to an audience of nearly 1,000 faculty members and students, in celebration of the inauguration of UM's new campus.



余小明博士喜見澳大校園培育眾多音樂好手

Dr Peter Yu is pleased to see that the campus has become a training ground for young musicians

對於學生音樂造詣的提升，余小明博士感到非常欣慰。2012年的7月，余博士首次踏足澳大校園，之前他在美國從事了10多年的學生事務管理，曾任美國維吉尼亞大學學生事務副院長。來到澳大後，他在推動學生藝術方面的發展下了不少功夫，更牽頭舉辦首屆文化藝術節，讓音樂、文化藝術的種子在校園播種和生長。

四大樂團呈新視聽驚喜

古時有云，琴棋書畫，樣樣皆精，當中更以琴為首，因此在音樂的培養方面，余小明博士認為是不容忽視的。「音樂能感化人，能團結人，是人生成長中不可缺少的一部分，更是校園文化中最有感染力的部分。」目前，澳大共設有四大樂團，包括合唱團、中樂團、管樂團和弦樂團，成員由校內不同專業、不同年級的學生組成，聲部齊全，樂種豐富。校內各樂團常定期在校內排練，舉辦多場音樂會，不時為校園帶來全新的視聽驚喜。學生事務部也一直致力帶學生到海外知名樂團交流，也邀請蜚聲國際的海外音樂家到校駐場。余小明博士表示：「我們會利用暑假的機

Dr Yu is very happy to see the improvement in the students' musical skills. He first visited UM in July 2012. Before joining UM, he was the associate dean of students at the University of Virginia, with more than ten years of experience in student affairs. Since becoming the dean of students at UM, he has spared no effort in promoting arts and cultural events on campus. UM's first Culture and Arts Festival was initiated by him.



書院成為學生展現音樂才華的重要平台

The residential colleges provide an important platform for students to showcase their musical talent



湯柏榮教授（後排左二）悉心栽培學生的音樂造詣
Prof Kevin Thompson (2nd from left, back row) has devoted a lot of time and effort to help students develop musical skills

會，從海外邀請音樂大師，與校內樂團學生進行專門的訓練，提升水平。」

與國際知名樂團交流

住宿式書院現在是一個學生展現音樂才華的平台，除了定期的高桌晚宴有學生表演外，更造就了不少讓學生欣賞和演出的機會，如滿珍紀念書院學生參訪百老匯世界著名劇團「貓」、蔡繼有書院舉辦古典印度及國際舞蹈表演與工作坊，

UM's Four Music Groups

Musicianship tops the list of the four arts of Chinese scholars (*guqin* [a stringed instrument], *weiqi* [the game of Go], Chinese calligraphy, and Chinese painting). For this reason, Dr Yu thinks it is important to help students learn to appreciate music and develop musical skills. He considers music to be not only an indispensable part of one's life for its ability to touch people's souls, but also the most influential aspect of campus culture for its power to unite people. Currently, there are four music groups at UM: a choir, a Chinese orchestra, a symphonic band, and a string orchestra. The groups were formed by students from different backgrounds. They practice and give concerts on campus on a regular basis. The Office of Student Affairs also plays an active role in this respect. It often organises international exchange trips for students to visit well-known orchestras overseas. It also invites renowned musicians from around the world to give performances. 'We will invite overseas musicians to provide special training for our music groups during the summer holiday,' says Dr Yu.

Exchange with World-renowned Orchestras

UM's residential colleges also provide ample opportunities for students to showcase their musical talent. In addition to the opportunity to perform at the regular high table dinner, students also get to participate in various musical events organised by their colleges. For example, students from the Moon Chun Memorial College visited the cast of the world-renowned Broadway musical *Cats*. Choi Kai Yau College held a performance of and workshop on classical Indian dance and international standard ballroom dances, and arranged for its students to participate in the Oxfam Musical



書院經常邀請世界各地知名樂團來到澳大交流

The residential colleges often invite renowned music groups from around the world to give performances at UM



校園成為各類音樂盛宴的舞台
UM has become young musicians' playground

參與樂施音樂馬拉松、紹邦書院合唱團與耶魯大學 Shades of Yale 合唱團聚首一堂共同演繹無伴奏輪唱，氣氛相當熱烈。

帶動校園音樂氛圍，少不了一眾用心與學生分享音樂的同行者，如滿珍紀念書院院長湯柏樂教授。他曾任香港演藝學院校長、西英國皇家藝術學院主席、達靈頓藝術學院院長，是著名小號演奏家、作曲家及指揮家。他常邀請國際知名的樂團到澳大演出，如倫敦著名的哈羅公學室內樂團、劍橋大學格頓學院禮拜堂唱詩班等。在他悉心栽培下，學生對音樂有了很多增廣見聞的機會。

社區式音樂氛圍

澳大校園成了音樂盛宴的舞台，如《藝術進校園之「舞樂合鳴」》、2015首屆國際合唱聯盟世界合唱博覽會等都在澳大舉行。余小明博士很高興見到澳大校園漸成孕育年輕音樂人的搖籃，他說：「今年是新校園起步的第一年，未來我們在培養學生音樂造詣方面將會做得更多，相信澳大有條件營造社區式的音樂氛圍，讓校園各角落都充滿音樂的氛圍。」

Marathon. Siu Pong College Choir shared the stage with Yale University's choir 'Shades of Yale' to give an *a cappella* performance.

Of course, it is impossible to create a good musical atmosphere on campus without the participation of faculty members who infect the students with their passion for music. One such figure is Prof Kevin Thompson, master of the Moon Chun Memorial College. Prof Thompson is a renowned musician, composer, and conductor. Before joining UM, he was the director of the Hong Kong Academy for Performing Arts, chairman of the Royal West of England Academy, and director of the Dartington College of Arts. He has invited renowned music groups to perform at UM, including the Harrow School (London England) Chamber Orchestra and the University of Cambridge's Girton College Chapel Choir. Because of his influence and extensive network in the music community, students have had many rare opportunities to broaden their minds.

Foster a Sense of Community through Music

Various musical events, including the First IFCM World Choral Expo, have been held on the campus; and more are scheduled for the future. Dr Yu is very pleased to see that UM has become a playground for young musicians. "The new campus became fully operational this year. In the future, we will put more effort into cultivating students' musical taste and skills. I believe we have what it takes to create a good musical atmosphere on campus and foster a sense of community through music," he says.

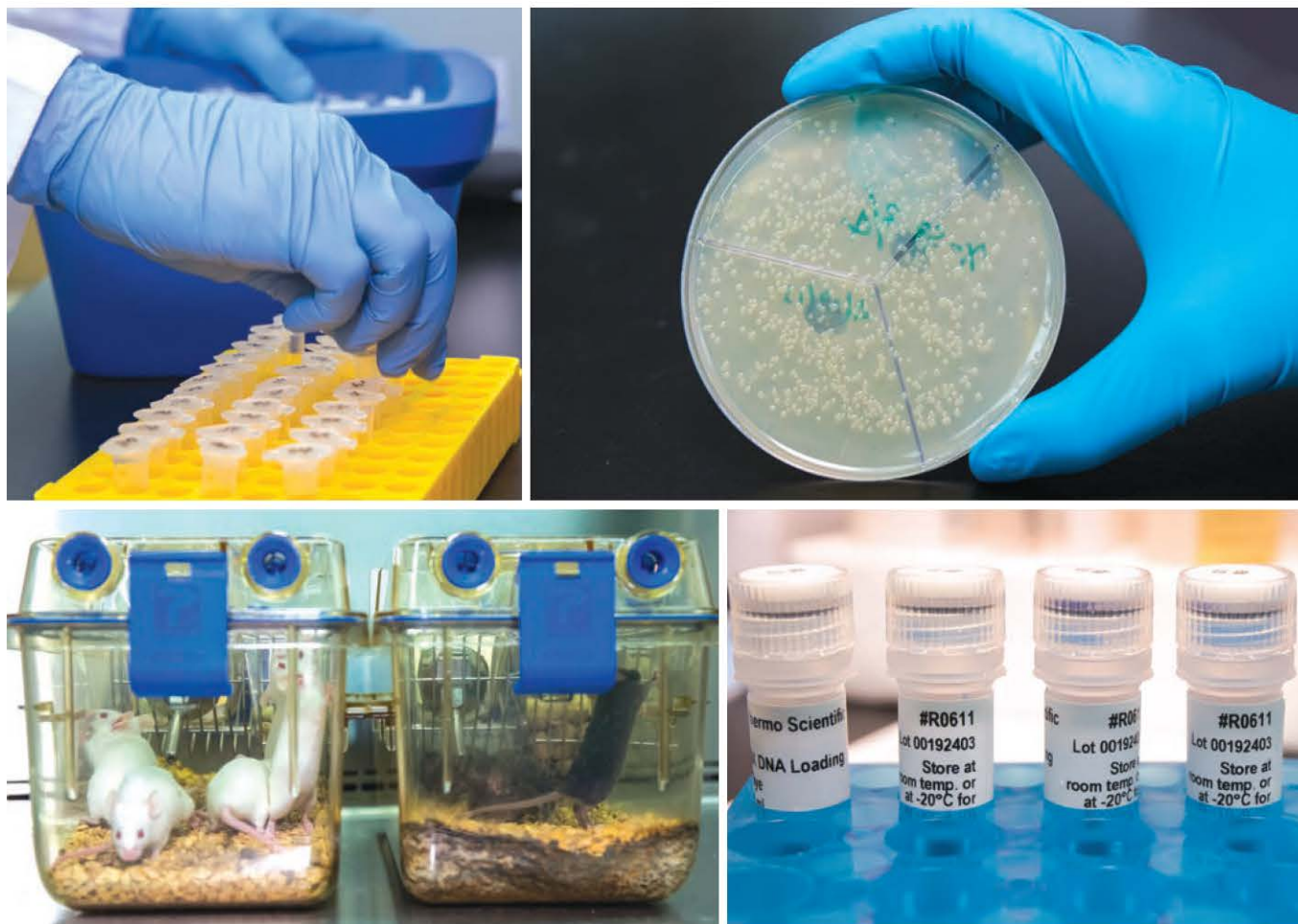
癌症研究填補澳門空白

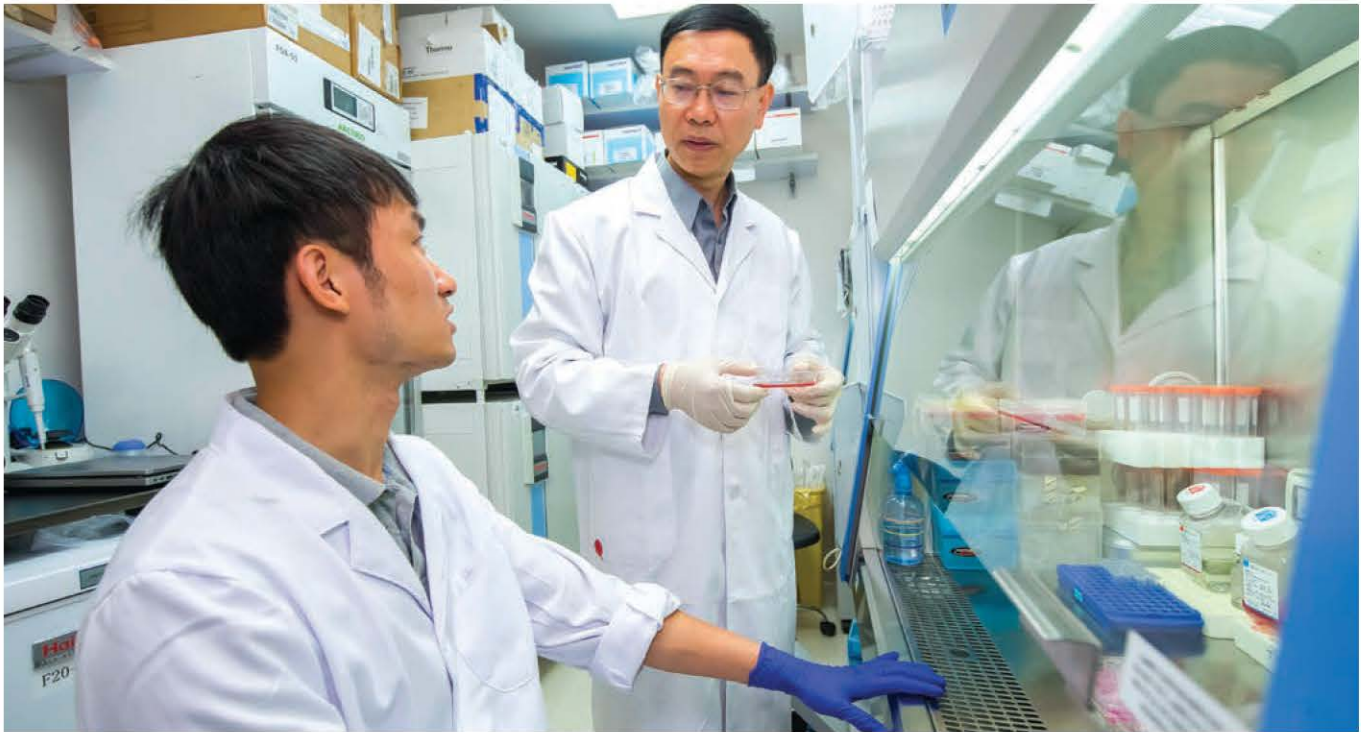
Filling the Gap in Cancer Research in Macao

文 Text | 張愛華 Ella Cheong 圖 Photo | 譚金榮 Eric Tam

癌症每年在全世界奪去數以百萬人的生命，癌症已成人類的致命殺手。癌症研究與市民健康息息相關，但澳門本地有關癌症的研究卻一直從缺。澳門大學健康科學學院在2013年成立，其長遠目標是在疾病相關的生物研究、轉化研究和醫學研究，其中癌症更會是學院重要的研究範疇。世界知名癌症研究專家鄧初夏教授去年上任健康科學學院院長後，即帶領研究團隊針對澳門人的身體特質和癌症特點進行精準的醫學研究。本文專訪鄧初夏教授，探討其領導的研究團隊及相關尖端基礎設施如何配合癌症研究項目的開展。

Every year cancer claims millions of lives worldwide, making it one of the leading causes of human deaths. Cancer research is closely related to human health. However, research in this area is lacking in Macao. In an effort to fill the gap, the University of Macau (UM) founded the Faculty of Health Sciences (FHS) in 2013. The long-term objective of the FHS is to become a leading research and teaching institution in disease-related biological, translational, and medical research, with focus on cancer research. Since taking up office as the dean of the FHS last year, Prof Chuxia Deng, a world-renowned cancer expert, and his team have carried out research in precision medicine tailored to the cancer characteristics and physical characteristics of patients in Macao. In this article we interview Prof Deng about his team's research efforts and state-of-the-art facilities.





鄧初夏教授（右）和他的研究團隊針對澳門人的身體特質和癌症特點而進行精準醫學研究

Prof Chuxia Deng (right) and his research team plan to carry out precision medicine research tailored to the physical characteristics and cancer characteristics of patients in Macao

第一個五年計劃

健康科學學院（FHS）在成立後即制訂了第一個五年計劃，鄧初夏教授說：「希望可以在第一個五年內建立一個由60個首席研究員組成的出色研究團隊。」為了加強研究能力，FHS已計劃建立與研究範疇相匹配的五個研究中心和一個研究所，分別是：癌症中心；生殖發育及衰老中心；免疫和傳染性疾病中心；分子醫學中心；神經退化性疾病中心和轉化醫學研究所。

鄧初夏教授是研究癌症與代謝疾病、癌症與老化、癌症幹細胞、以及易感基因BRCA1致癌機理的專家。之前曾任美國國家衛生研究院（NIH）高級生物醫學研究員、美國國家糖尿病、消化病與腎臟疾病研究院（NIDDK）哺乳動物基因學研究組組長，NIDDK終生研究員。到澳大後，他把癌症研究定為FHS未來的核心研究之一，並親自擔任癌症研究中心主任。「研究中心將著重研究信號轉導；癌症遺傳學、表觀遺傳學和流行病學；癌症的發生、發展和轉移；發育、代謝與衰老；癌症藥物的篩選和研發；以及癌症預防與治療等六個範疇。」

The First 5-Year Plan

The FHS has established its first five-year plan. 'We hope to develop an outstanding research team of 60 principal researchers within the first five years,' Prof Deng says. To improve research capacity, the FHS plans to establish five research centres and one research institute, namely the Cancer Centre; the Centre of Reproduction, Development & Ageing; the Centre of Immunology and Infectious Diseases; the Centre of Molecular Medicine; the Centre of Neurodegenerative Diseases; and the Institute of Translational Medicine.

Prof Deng is an expert on cancer and metabolic diseases, cancer and ageing, cancer stem cells, and the breast cancer susceptibility gene, BRCA1. He was a senior investigator of the Senior Biomedical Research Service at the United States National Institutes of Health, chief of the Mammalian Genetics Section at the United States National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), and tenure-track investigator of the NIDDK. After joining UM, Prof Deng identified cancer as one of the key areas of research for the FHS and served as the head of the Cancer Centre. 'The Cancer Centre will focus on signal transduction and carcinogenesis; cancer genetics, epigenetics, and epidemiology; cancer initiation, progression, and metastasis; development, metabolism, and ageing; cancer drug screening and development; and cancer prevention and therapy.'

研究針對澳門人癌症特點

根據澳門衛生局發佈的《澳門癌症登記年報2012》數據顯示，癌症為本澳10大死因之首，佔所有死亡個案的37%。2012年澳門癌症登記系統登記的新發和死亡癌症個案分別是1,395例和652例，男性佔前三位的新發癌症分別是肺癌、結腸直腸癌和前列腺癌，女性則是乳癌、肺癌及結腸直腸癌，由此可見乳癌已成澳門女性的頭號致命殺手。乳癌的研究是鄧教授早前的一個研究重點，現時他的研究團隊會繼續在澳大進行乳癌方面的研究，尤其是針對澳門人的身體特質和癌症特點而進行精準醫學研究。他說：「我們也會對澳門常見的一些其他癌症，例如大腸癌、肺癌、肝癌、鼻咽癌和胃癌，以及其他一些重要領域開展研究。我們將研發出一批針對常見癌症的精準治療方案，並把最新的研究成果提供給本澳醫院，為有效地降低癌症死亡率作出貢獻。」

尖端技術設施輔助研究

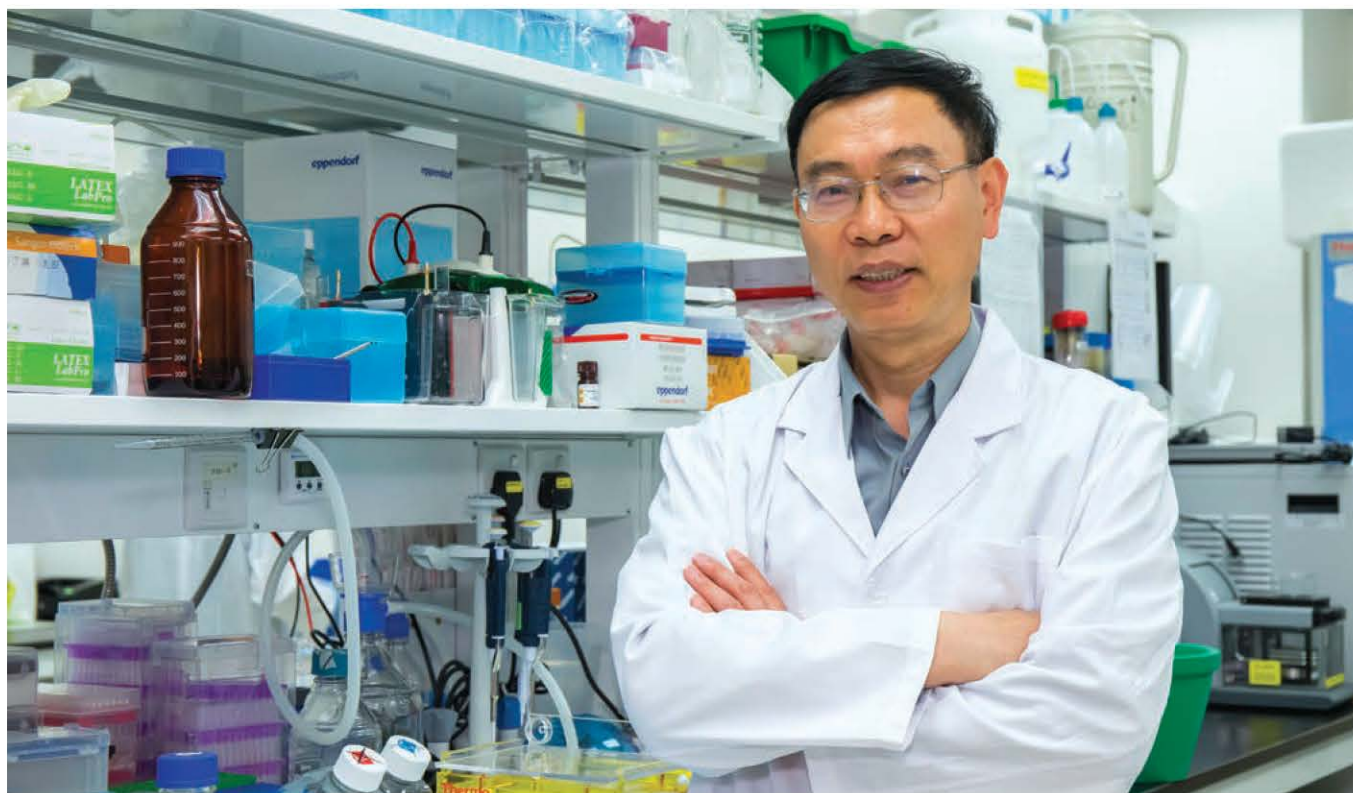
FHS進行的研究範疇與公眾健康息息相關，但由於澳門本地相關的研究相對缺乏，為了支持這些

Tailor Research to Cancer Characteristics in Macao

According to the *Annual Report of Macao Cancer Registry 2012* released by the Macao Health Bureau, cancer tops the list of the ten leading causes of death in Macao, accounting for 37 per cent of all deaths in the city. According to data collected through the cancer registration system in Macao, registered new cancer cases and deaths from cancers in 2012 were 1,395 and 652 respectively. Among the registered new cancer cases in men, the top three common cancer sites were lung, colon or rectum, and prostate. The top three common cancer sites in women were breast, lung, and colon or rectum, showing that breast cancer has become the most common cause of death from cancer for women in Macao. Breast cancer is Prof Deng's key research interest, and here at UM he and his team will continue to carry out precision medicine research in this area tailored to the cancer characteristics and physical characteristics of patients in Macao. 'We will also carry out research on other common cancers in Macao, such as colon cancer, lung cancer, liver cancer, nasopharyngeal cancer, and gastric cancer, and other important areas,' says Prof Deng. 'We will develop personalised treatment strategies for common cancers and share the fruit of our research with local hospitals in order to help reduce cancer-related mortality in Macao.'

State-of-the-Art Research Facilities

The FHS's research areas are closely related to public health, but because cancer research is lacking in Macao, the FHS is



鄧初夏教授透露FHS有意籌備醫學培訓中心，為本澳專科醫生提供培訓。

Prof Chuxia Deng says the FHS plans to establish a training centre to help train medical specialists for the local community

研究活動，FHS已經或即將建立一系列擁有尖端技術的基礎設施，包括了10個核心實驗中心：實驗動物中心、生物成像、藥物開發、基因組學及生物資訊學、組織病理學、誘導多能幹細胞、代謝組學、蛋白質組學、單細胞技術及基因表達，以及轉基因和基因敲除。鄧教授表示：「每個核心實驗中心為學院研究人員提供最先進的設備以供操作，其專家也會提供專業的意見服務。憑藉著核心實驗中心的支援，將有利於研究創新與研究工作的發展。」

協助提升澳門醫療人員水平

此外，為了培養澳門在生物醫學科學方面的發展和有效利用資源，FHS正籌劃興建澳門生物醫學科學核心實驗中心。該中心將統籌FHS已建立的10個核心實驗中心所有運作與活動。鄧教授透露說：「該實驗中心的長遠目標是擴大對學院或大學研究團體提供的研究服務，配合澳門本地其他研究團隊的需要。」

本澳醫生數量不少，但要成為優秀的專科醫生必須再培訓。FHS計劃未來也會協助澳門培訓醫療人員，提升澳門整體醫療水平。鄧教授說：「我們有意籌備醫學培訓中心，為本澳專科醫生提供培訓。培訓中心預計最快在2016年建立，爭取在2017年為首批專科醫生提供培訓。」



每個核心實驗中心提供最先進的設備
Each core provides state-of-the-art equipment for researchers in the faculty



癌症研究定為FHS未來的核心研究之一

Cancer has been identified as one of the FHS's key research areas

establishing a state-of-the-art infrastructure with ten core facilities to aid research activities. The ten core facilities are the Animal Facility, the Bioimaging Core, the Drug Development Core, the Genomics & Bioinformatics Core, the Histopathology Core, the Induced Pluripotent Stem Cells Core, the Metabolomics Core, the Proteomics Core, the Single Cell & Gene Expression Analysis Core, and the Transgenic & Knockout Core. 'Each core provides state-of-the-art equipment and expert advice for researchers in the faculty. This will greatly support innovative research and benefit research activities in the faculty,' says Prof Deng.

Help to Improve Medical Service Quality in Macao

Furthermore, to nurture research in biomedical sciences in Macao and to effectively utilise resources, the FHS plans to establish a Macau Core Facility for Biomedical Sciences to coordinate the operation and activities of all the core facilities. 'The long-term goal of this unit is to expand the service beyond the users in the faculty and the university and to cater to the research needs of other research institutions in Macao,' says Prof Deng.

There is no shortage of doctors in Macao, but these doctors need to go through re-training to become outstanding specialists. The FHS plans to assist in the training of medical specialists so as to improve the overall quality of medical service in Macao. 'We plan to establish a training centre to train medical specialists for the local community,' Prof Deng says. 'If everything goes according to plan, the training centre should be available in 2016, and our hope is to start providing training in 2017.'

實驗動物中心運作 遵從國際標準

Operation of the Animal Facility Meets International Standards

利用小鼠進行實驗是研究癌症中不可或缺的一環，當年鄧初夏教授在美國的實驗室就是在小鼠實驗中證實Sirtuin家族成員SIRT2是一種重要的腫瘤抑制因數，SIRT2異常可導致性別特异性腫瘤形成，這一研究由此確定了一個新的抑癌因數家族。

健康科學學院實驗動物中心內的許多小鼠都是跟鄧教授一起從美國而來，他說：「實驗動物中心現時只可容納1.5萬隻小鼠，但2017年將會遷進佔地面積3,000平方米的兩層建築物，成為永久動物飼養中心，屆時將可容納大約10萬隻小鼠、5,000隻大鼠、500隻白鼠以及300隻兔子，也將有助進一步開展各項研究。」

Using mice in experiments is an indispensable part of cancer research. Working in the United States, Prof Deng confirmed through experiments with mice that SIRT2, which belongs to the sirtuin family of proteins, is an important tumour suppressor, and that SIRT2 abnormalities can cause gender-specific tumours, thus identifying a new family of cancer suppressors.


Many mice in the Animal Facility travelled from the United States with Prof Deng. 'The current temporary facility houses 15,000 mice, and when the permanent vivarium of 3,000 square metres is available in 2016, it will be able to house approximately 100,000 mice, 5,000 rats, 500 guinea pigs, and 300 rabbits,' says Prof Deng.


All procedures in the Animal Facility, including husbandry, basic manipulations, and invasive procedures, are performed according to standard operating procedures meeting international standards.

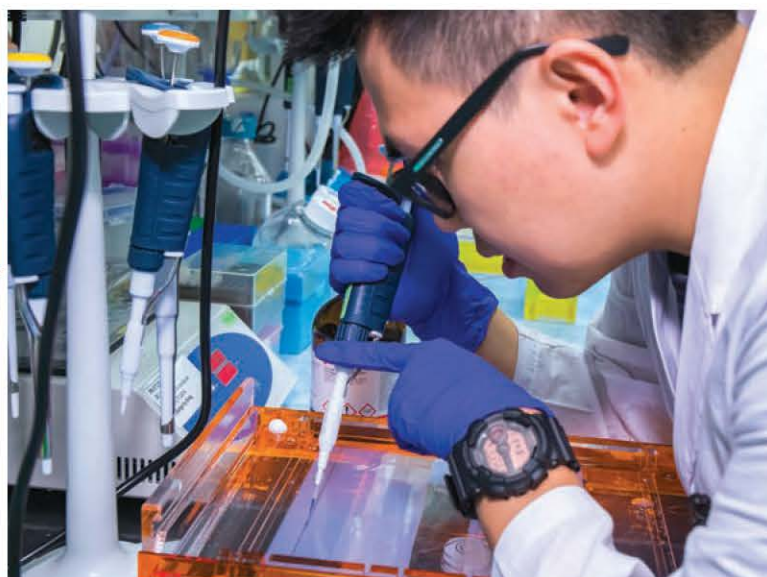


實驗動物中心內的許多小鼠都是跟鄧初夏教授一起從美國而來

Many mice in the Animal Facility travelled from the United States with Prof Deng

實驗動物中心的所有程式，包括飼養，基本操作以及具傷害性操作都必需遵從多種國際標準操作規範。實驗動物中心還配備了內部生化和血液分析設備，以便快速控制中心內的疾病蔓延。實驗動物中心的人員由具有多年照顧實驗動物專業經驗獸醫和動物健康技術員組成。 

The Animal Facility is also equipped with instruments to support in-house biochemical and hematological analyses that allow swift responses to disease outbreak in the vivariums. The technical staff of the facility consists of veterinarians and animal health technicians with rich experience in handling small research animals. 



FHS的核心實驗中心有利於創新研究的發展

The core facilities at the FHS greatly support innovative research

管理新模式： 款客服服務及博彩管理課程

New Management Model: Hospitality and Gaming Management Programme

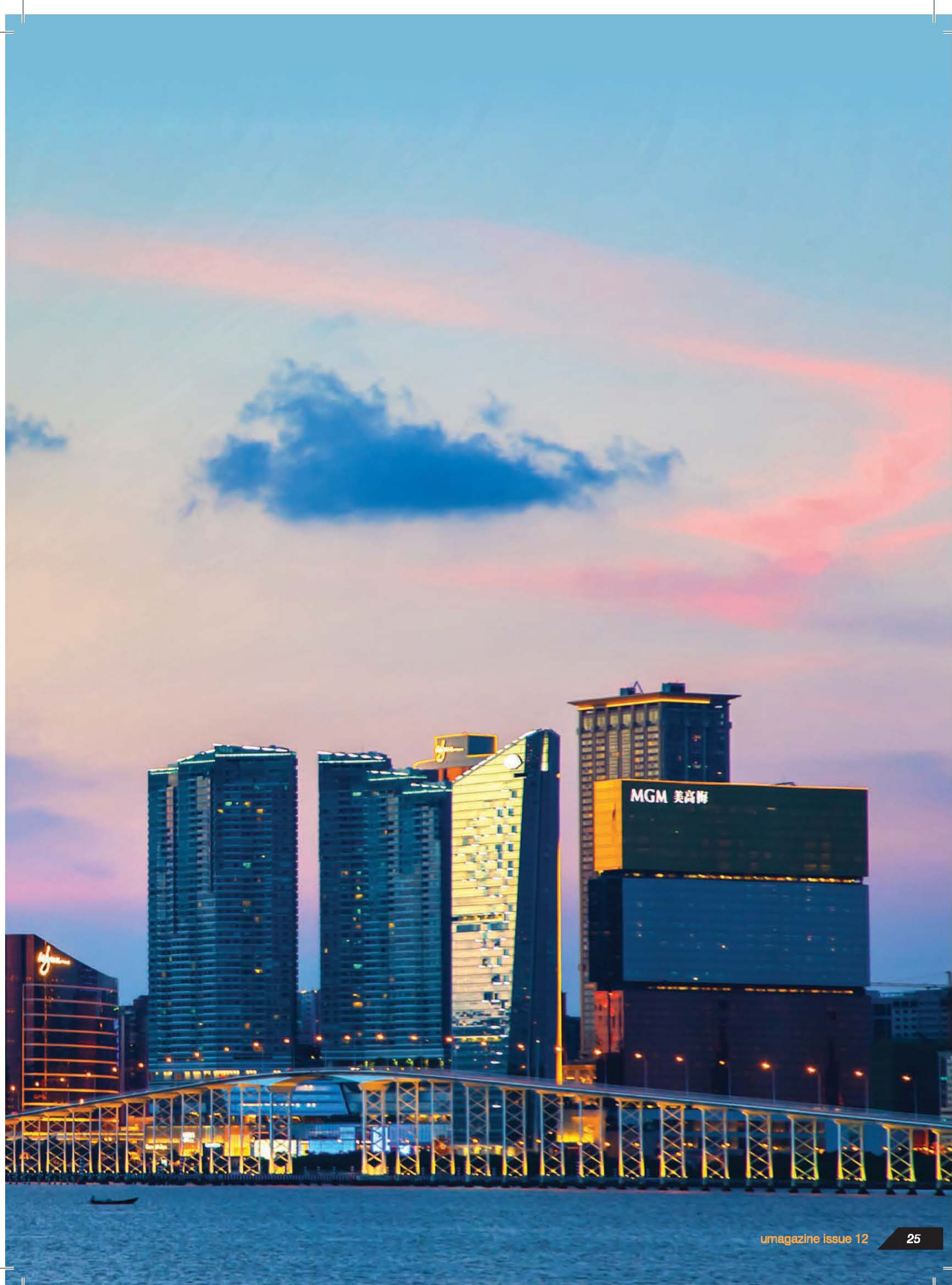
文 Chinese & English | 特約記者黎祖賢 Tony Lai (Stringer)

圖 Photo | 譚金榮、何杰平、部分由工商管理學院提供 Eric Tam & Jack Ho, with some provided by the Faculty of Business Administration

澳門大學款客服服務及博彩管理學士學位課程和澳大博彩研究所踏入成立第12個年頭，一直肩負著培育相關領域人才、出謀獻策的使命。但政府近年大力推動非博彩元素的發展，以及本地人向上流動，澳大又如何迎合小城最新的發展趨勢？

It has been 12 years since the University of Macau (UM) set up the Hospitality and Gaming Management programme and the Institute for the Study of Commercial Gaming (ISCG), taking up the responsibilities of nurturing talent and offering policy advice in the related fields for the city. As the Macao government is now encouraging casino operators to develop non-gaming elements, as well as promoting the upward mobility of locals, what role can UM play in this new policy initiative?





增設模擬賭場實驗室

骰寶、幸運輪、百家樂、21點、加勒比撲克，澳大款客服務及博彩管理課程的學生現在不需要進入賭場，只要前往校園內的博彩實驗室，便可置身於如娛樂場一樣，體驗這類賭桌遊戲的運作。

課程主任蘇小恩博士表示，自去年搬入新校園後，澳大博彩研究所增設了該實驗室，新設施猶如模擬賭場，除了適用於業界的培訓課程外，該學士課程的學生亦會使用實驗室上課，「這給予學生一個應用知識的機會，特別是很多學生也是少於21歲，不能夠進入賭場。」

2002年賭權開放後，澳門經濟進入一個嶄新紀元，澳大作為澳門第一高等學府，眼見社會對博彩業教育的需求，翌年開辦款客服務及博彩管理學士學位課程。蘇博士透露，課程早期的名稱是博彩管理學士學位課程，只提供與博彩相關的科目，但不論澳門或全球博彩業都是朝著綜合度假村的發展，賭場只是其中一環，還有餐飲、會展等元素，有見及此，課程於七年前易名為現在的名稱，並提供博彩管理及款客服務兩門專修課。

課程靈活創意兼備

「我們的課程靈活性比較大，因為很多學校的課程只專注於某一科，學生畢業後只能在該領域工作。但我們專修博彩管理的學生，畢業後仍可選擇在酒店領域發展，專修款客服務的畢業生亦能選擇跟博企相關的管理工作。」蘇博士又提到課程另一大特點是緊貼行業趨勢，不時邀請行業領導蒞臨澳大演講，亦安排學生前往不同的度假村項目考察並為學生提供實習機會。



蘇小恩博士
Dr Amy So Siu Ian

Mock Casino

Sic Bo, wheel of fortune, baccarat, blackjack and Caribbean Stud poker—students of the bachelor programme in Hospitality and Gaming Management no longer need to visit casinos to understand the operations of these types of table games. Walking a few steps to the Gaming Laboratory on the campus will deliver them almost the same experience.

Dr Amy So Siu Ian, programme director of Hospitality and Gaming Management, says ISCG set up the new facility after moving to the new campus last year. Designed as a mock casino, the laboratory not only serves as a venue for the training of industry practitioners, but it is also where the students of the Hospitality and Gaming Management programme meet for their classes. 'This gives the students an opportunity to apply what they have learned from textbooks, a valuable experience for many students who age below 21, the legal age of entry to casinos,' Dr So explains.

Macao has entered a new era since the liberalisation of the gaming market in 2002. As the leading higher education institute in the city, UM established the Hospitality and Gaming Management programme in 2003 in view of the increasing demand for education in related fields. It was formerly known as the Gaming Management programme, providing only casino-related courses. However, both Macao and the entire gaming industry are developing in a direction that emphasises integrated resorts—in which the casino is only one of the elements, in addition to food and beverage, and exhibitions and conventions—so the programme underwent a revamp seven years ago and has since allowed the students to choose to focus on either the Gaming Management or Hospitality Management Streams.

Flexible and Creative Curriculum

'Our curriculum is relatively flexible. The programmes of other schools only focus on one area and their students could only pursue their career in that particular field after graduation,' Dr So says. 'But our graduates of the Gaming Management Stream can opt for a career in the hotel industry, whereas our graduates of the Hospitality Management Stream can choose management jobs in casino-related areas, too.'

Dr So emphasises that closely following the latest industry practices is another major feature of the programme: The programme regularly invites industry leaders to give talks to the students, who can visit and have internship opportunities in the integrated resorts and other companies in the industry.

After moving to the new campus, the design of the programme is also more interactive. There is a new MICE Laboratory, which serves as a platform for the students to apply the theories they have learned

自遷入新校園後，課程設計更具互動性。蘇博士表示，校園亦設立了會展實驗室，提供平台讓學生實踐會展理論，發揮創意。在今年三月舉行的澳大開放日，款客服務及博彩管理課程的學生以紙飛機為主題佈置實驗室，推廣課程內容，吸引莘莘學子、家長及公眾，並在實驗室內懸掛一架大型紙飛機——寓意課程帶領學生創出一片天。她續稱，不久將來，另一項新設施款客實驗室亦會正式投入運作，內有多功能廳、教學廚房及教學酒櫃，讓學生從實踐中學習。

推動培訓本地人向上流動

款客服務及博彩管理的核心課程現由八位教職人員任教，課程每年平均招收60至70位學生。蘇博士說，畢業生普遍就職於賭場、酒店及會展等不同行業，首幾屆的畢業生很多已晉升至高級經理或更高職位。「我們的課程更注重學生的批判性思考及管理能力，對他們在職場上向上流動有很大幫助，因為業界每日都有大大小小不同問題需要解決。」她亦提到，澳大三年前開辦國際綜合度假村管理學碩士學位課程，主要著墨於管理層的技能，「響應澳門現時的发展，培育更多本地人才。」

除了要求博企積極推動本地人向上流動外，澳門政府亦冀盼博彩從業員尤其莊荷自強不息，接受培訓，提升水平。澳大博彩研究所所長馮家超教授表示，他們數年前已開辦一年制的賭場管理文憑課程及博彩管理高級文憑課程，讓沒有高等教育的博彩業前線員工就讀，至今修畢兩個文憑課程的學員總人數超過500名。此外，研究所亦屢次獲博企邀請，為其員工舉行講座或短期課程。



學生利用會展實驗室，實踐會展理論。

The MICE Laboratory serves as a platform for the students to apply the theories they have learned



馮家超教授

Prof Davis Fong Ka Chio

and utilise their creativity, Dr So says. At the UM Open Day held in this March, the students of the Hospitality and Gaming Management programme used paper airplanes as the main theme for the set-up of the laboratory, promoting their courses to prospective students, their parents and the public. The highlight of the set-up was the installation of a large-scale paper airplane in the laboratory, symbolising that the programme would take the students to new heights. Another new facility, Hospitality Laboratory, will be in full operation soon, featuring a ballroom, a learning kitchen, and a learning bar, to enrich the learning experiences of the students.

Providing Training and Advancing Upward Mobility of Locals

There are now eight staff members teaching the core subjects of the Hospitality and Gaming Management programme and the annual enrolment of students varies between 60 and 70. The graduates generally work in the areas of casino, hotel and convention—the first few classes have already been promoted to senior managers or higher positions in their companies. ‘Our programme emphasises on critical thinking and management skills, which could help the students to advance upward mobility in their careers, as there are different kinds of problems the industry leaders have to solve every day,’ Dr So says. ‘We also set up the master programme of International Integrated Resort Management three years ago, focusing on management skills, to nurture more local talent in response to the latest development of Macao.’

Besides urging the gaming operators to actively advance the upward mobility of the locals, the Macao government also hopes the gaming employees, especially casino croupiers, can receive more training to enhance their quality. Davis Fong Ka Chio, director of UM’s ISCG, says they offer two one-year programmes—Diploma of Casino Management and Advanced Diploma in Gaming Management—targeting the industry practitioners who have not completed higher education, and more than 500 practitioners have finished the diploma programmes. ISCG has also been invited by the gaming operators to organise seminars or short-term

「在職業發展上，向上流動是大方向，但只談升職是沒有意義，更重要是個人技能提升。」

研究所三大平台功能

2003年成立後，博彩研究所的工作一直遵從其「三大平台功能」。馮教授解釋，一是學習平台，讓老師及學生在貼近業界的環境下學習；二是研究平台，在過去10多年，研究所完成20多個研究項目，涉及不同範疇如問題賭博、負責任博彩及博彩業的社會經濟影響等，大部分研究在政府制定相關政策時提供參考；三是國際交流平台，冀望通過研究所與其他發展博彩業的地區交流接觸，促進業界健康發展，並帶領學生去不同地方考察，互相學習。

博彩研究所每年安排款客服務及博彩管理課程的大三學生遠赴拉斯維加斯參觀當地的度假村項目。「2004年我還未完成博士學位課程時，澳大派我和另一位同事前往美國內華達州立大學拉斯維加斯分校進行一個學期的學習、研究和考察。那次經歷令我印象深刻，因為拉斯維加斯的營運模式，不論是規模、管理、服務水平、收入多元化等，都是澳門或旅遊城市需要具備的。」馮教授回憶旅程中的種種經歷時說，「回來後，發現旅程對自己影響好大，我希望不止自己有這種體驗，也希望我的學生都能經歷這一切，所以之後我向學校申請每年帶學生前往拉斯維加斯考察。」

不遺餘力協助澳門健康發展

博彩研究所於2009年聯合澳門社會工作局及博彩監察協調局首次起動「負責任博彩推廣活動」，



蕭志成教授
Prof Ricardo Chi Sen Siu

courses for their employees. 'Upward mobility is a major direction of career development, but enhancing the personal skills of the workers is more important than promotion,' Prof Fong remarks.

Three Platform Functions of ISCG

Prof Fong says ISCG has been fully committed to its 'three platform functions' since establishment in 2003. The first function is learning platform, which provides the teaching staff and students a learning environment closely linked to the industry; the second is research platform, as ISCG has carried out some 20 research projects from problem gambling and responsible gaming to the socio-economic impacts of the gaming industry, most of which the government will look into before formulating any policies; the third one is an international exchange platform, which facilitates exchanges between Macao and other gaming jurisdictions, such as arranging visits for the students to other cities, ensuring the healthy development of the industry.

One of the visits ISCG arranges is the Study Mission to Las Vegas, which is held annually for third-year students of the Hospitality and Gaming Management programme. 'Back in 2004 when I had not even finished my doctoral degree, UM sent me and another colleague to the University of Nevada, Las Vegas for a semester to study and carry out research, which left me with an unforgettable experience. The operating model of Las Vegas, including its business scale, management, service level and diversified revenue structure, is what Macao or any tourist city could learn from,' Prof Fong recalls. 'After I came back to Macao, I had found out this trip had a lasting impact upon me. I wanted the students to go through the same experience as I did, so I later asked UM to arrange a study mission to Las Vegas every year.'

Contributions to Healthy Development of Macao

In collaboration with the Social Welfare Bureau and the Gaming Inspection and Coordination Bureau of Macao, ISCG launched for the first time a promotional campaign for Responsible Gambling in 2009, which has continued each year onwards to increase the public awareness of responsible gambling. Moreover, ISCG developed Responsible Gambling Kiosks in 2012, devices which are set up in casinos as a more interactive means to provide the information of responsible gambling for the public and the visitors through games and self-assessment tools.

'Since the government proposed to develop Macao as a World Centre of Tourism and Leisure in 2011, we have started to carry out the Macao Visitor Profit Study each year,' Prof Fong explains the goals of the survey. 'Do visitors agree Macao has become a World Centre of Tourism and Leisure? Are there any changes in the demographics of the visitors? Are there any changes in the consumption pattern of the visitors? The survey covers many of these indicators to see how much



博彩研究所增設的博彩實驗室，猶如模擬賭場。

The new Gaming Laboratory of the Institute for the Study of Commercial Gaming is designed as a mock casino.

其後每年繼續相關推廣，加強社會對負責任博彩的認知，更於2012年研發「負責任博彩資訊亭」，設置於賭場內，提供遊戲及自我問卷調查，以互動的形式向市民及旅客提供負責任博彩的資訊及救助途徑。

「政府在2011年提出將澳門定位為世界旅遊休閒中心，其後，我們開始每年展開《訪澳旅客調查》。」馮教授稱調查用意非常鮮明：「旅客是否完全認同澳門達到這個定位？旅客背景有甚麼變化？旅客消費習慣又有甚麼改變？調查涵蓋不同指標，看看澳門同世界旅遊休閒中心的目標差距多遠，從而向政府提出政策意見。」

博彩業調速不轉勢

澳大博彩研究所最近亦受到政府委託，負責博彩業中期檢討報告，檢視博企落實專營合同的情況 and 到位程度，以及非博彩元素的發展和企業社會責任等。馮教授認同博企在社會投入方面可做更多，「往往不是錢最能感動人，而是人感動人，所以希望博企讓員工有更多機會參與志願工作，協助社會上有需要人士。」

另一位研究博彩業的本地學者、澳大工商管理學院商業經濟學副教授蕭志成表示，如政府所言，

more Macao has to do, and we will provide advice for the government based on the outcomes.'

Gaming Industry Maintaining Upward Momentum despite Slowing Growth

The government has recently commissioned ISCG to be in charge of a mid-term review of the gaming industry, which will see how well the gaming operators have implemented the terms of their gaming concessions or sub-concessions, their efforts in the development of non-gaming elements and their corporate social responsibility. Prof Fong agrees the gaming operators could put more efforts in the community participation, saying: 'It's not money that moves people the most but the people-to-people exchanges. So I hope the gaming operators will provide more opportunities for their employees to do volunteer work, helping those are in need in the society.'



學生畢業後可選擇往酒店領域發展

Graduates of the Gaming Management Stream can opt for a career in the hotel industry

關顧員工的衣食住行及支持本地人才向上流動，是博企應該承擔的社會責任。「加大非博彩元素的發展是重要一環，令澳門可持續發展亦是社會責任的其中一部分。在未來五至十年，博彩業作為龍頭產業，應促進非博彩元素的發展，實現澳門博彩業調速不轉勢。」

經過10多年的高速增長，創造一個個「神話」後，澳門博彩業現在進入調整時期，是適當的時機檢視自身營運模式。「澳門賭場收入過往依賴貴賓廳及博彩中介人，但他們管理的透明度並不高，現時是機會整理相關制度。」蕭教授指出，隨著澳門大力發展非博彩元素，以及多個綜合度假村項目陸續在未來數年落成，澳門多個領域將求賢若渴。



博彩研究所研發的負責任博彩資訊亭
The Responsible Gambling Kiosk developed by
the Institute for the Study of Commercial Gaming

Another local academic in gaming studies, Ricardo Chi Sen Siu, associate professor of business economics at UM's Faculty of Business Administration, says taking care of the livelihoods of the employees and supporting the upward mobility of locals, as proposed by the government, are part of the social responsibilities the gaming operators should take on. 'Strengthening the development of non-gaming elements to ensure the sustainable development of Macao also plays an important part in the corporate social responsibility of the gaming operators,' he adds. 'In the next five to ten years, the gaming industry, as the pillar sector here, should facilitate the development of non-gaming elements so that it can maintain an upward momentum despite slowing growth.'

After a decade of rapid development creating one record after another, the gaming industry has entered an adjustment period and it is time now to reflect on its own operating model. 'The gaming revenue of Macao has been too dependent on VIP rooms and gaming promoters. But the transparency of their operation is not high so it is time now to review the relevant rules,' said Prof Siu, who also points out as Macao is pushing forward the development of non-gaming elements, together with the completion of several integrated resorts in the next few years, the demand for professionals in related areas will surge.

Seizing Opportunities with Professionalism

'There are many opportunities now compared with the time when I was still studying,' says Dr So, adding it was even difficult to find internship opportunities here in the past. Meanwhile, Prof Fong believes the UM programme can help the students to grasp the opportunities by 'equipping them with the relevant skills for their future career advancement'.

澳門博企發展迅速，求賢若渴。
As the gaming operators are pushing forward the development of non-gaming
elements, the demand for professionals in the related areas will surge.





款客服務及博彩管理學士課程配合澳門旅遊城市發展的需要

The bachelor programme in Hospitality and Gaming Management of UM meets the needs of Macao's development as a tourist city

敬業樂業把握機遇

「現在相對我讀書的時候，機會多好多。」蘇小恩博士說，當時要在澳門找跟款客服務相關的實習機會是十分困難。馮家超教授認為，澳大的相關課程能夠協助學生把握現有機遇，「提供平台讓同學先裝備自己，然後發展自己職業生涯。」

「澳門年青一代現在只要具備良好的工作態度，便可以在事業上有出色的發展。我們的課程能給予學生優質的學術訓練，良好的思維訓練，更重要的是培養他們敬業樂業的態度。」蕭志成教授笑說，「很多學生畢業後回來跟我分享，覺得我以前十分嚴格，但現在很高興我當時催迫使他們用功學習。」

‘As long as you have a good attitude, it is not difficult for the new generation of Macao to achieve success in their careers. Our programme can give the students quality training of academic skills and critical thinking, and more importantly, we help them to develop professionalism,’ says Prof Siu. ‘Many graduates told me that they thought I was very strict in the past but they are now so glad I forced them to study hard.’



短片：款客服務及博彩管理課程 配合澳門社會發展
Video: UM's Hospitality and Gaming Management programme supports Macao's development



牛津劍橋入學試題 對教育的啟示

What Do Oxford-Cambridge Admissions Questions Teach Us about the Meaning of Education?

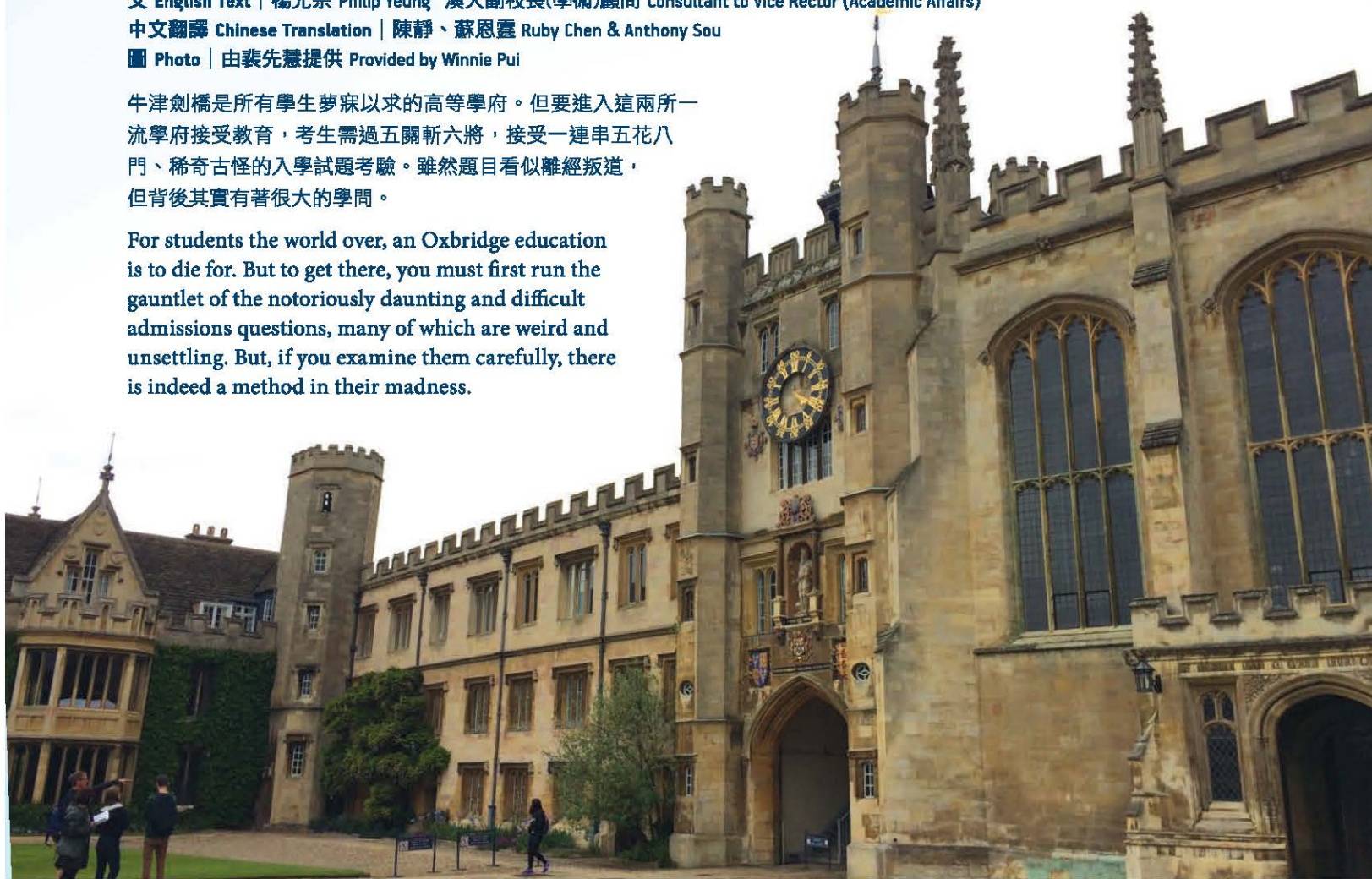
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圖 Photo | 由裴先慧提供 Provided by Winnie Pui

牛津劍橋是所有學生夢寐以求的高等學府。但要進入這兩所一流學府接受教育，考生需過五關斬六將，接受一連串五花八門、稀奇古怪的入學試題考驗。雖然題目看似離經叛道，但背後其實有著很大的學問。

For students the world over, an Oxbridge education is to die for. But to get there, you must first run the gauntlet of the notoriously daunting and difficult admissions questions, many of which are weird and unsettling. But, if you examine them carefully, there is indeed a method in their madness.



向火星人介紹湯匙

用充滿創意的古怪試題折騰考生是世界頂級學府的專利，而牛津劍橋似乎也樂此不疲。難以想像澳門、香港、國內或亞洲其他地區的大學會讓考生「向火星人介紹一下湯匙」或者問考生「你是小說還是詩？」以上兩個入學題目都被英國廣播公司第四台的播音員Libby Purves列為典型的入學題目範例。

Describe a Spoon to a Martian

The right to ask crazy questions is the preserve of the world's tip-top universities, and Oxford and Cambridge seem to take a perverse pleasure in this creative torture. We can't imagine any university in Macao, Hong Kong, China or the rest of Asia having the audacity to pose outlandish questions to applicants such as asking them to 'describe a spoon to a Martian' or asking them 'Are you a novel or a poem?'—both questions cited as representative examples by the famous author and BBC Radio 4 presenter Libby Purves.

如果這些反傳統的入學試題沒有嚇倒你，或者你會開始思考設計奇怪試題背後的目的。我記得牛津大學校長Andrew Hamilton教授不久前告訴一群香港觀眾，報考工程系的考生可能會被問及對17世紀荷蘭通貨膨脹的看法。這些看似不相干沒意義的問題，目的在於篩選出類拔萃的學生。

然而，由於應試教育在亞洲大行其道，即使在亞洲出類拔萃的學生也未必會被重視創意的牛津及劍橋看上。當然牛津劍橋依然關心學生的知識水平，而亞洲學生在這方面非常出色，但僅以知識的多寡來衡量考生能力，這種方法對於全球的菁英大學已經不合時宜。考生幾乎無法為牛津劍橋的入學試題作任何準備。

跳出思維定勢

John Farndon和其他知情人士表示，牛津劍橋最關心的是，在毫無準備的情況下，面對不熟悉或者出奇不意的問題，考生如何跳出慣性的思維模式，給出令人眼前一亮的答案。入學試中獲錄取的往往是思維敏捷和面對壓力處之泰然的考生，而非那些只能給出一般答案的普通考生。如果答案還能凸顯考生的幽默感及不從眾的一面，那自然更是錦上添花。

Farndon先生表示，試題的設計是為了考察學生是否能夠質疑自己一貫的假設及跳出思維定勢。



具創意的學生易獲知名大學垂青
Top universities favour students with creativity



僅以知識多寡衡量大學考生能力已經不合時宜
Possession of knowledge is passé in elite global universities

If you are not knocked off-balance by these unorthodox questions, you may begin to realise that there is a purpose behind their other-planetary weirdness. I remember Prof Andrew Hamilton, the vice chancellor of the University of Oxford, telling a Hong Kong audience not too long ago that an applicant for an engineering degree programme might be asked by an Oxford recruiter what he thought of inflation in 17th century Holland. These apparently nonsensical questions are designed to separate the wheat from the chaff. What is wheat in exam-crazy Asia, however, may be chaff to curiosity-driven Cambridge or Oxford. Possession of knowledge, prized in Asia, is passé in elite global universities. The Oxbridge admissions questions are not something you can bone up for, or be prepped for.

Think Outside the Box

According to people in the know, including John Farndon, they care much more about whether the candidates can think their way out of the unfamiliar or the unexpected. In this encounter, the ability to think on your feet, as well as poise under pressure, is prized over a factually pedestrian reply. A wicked sense of fun and a non-conformist attitude are also desirable.

These questions, experts point out, are designed to see how much of the answers reveal the mental make-up of the applicants, whether they are capable of challenging their own assumptions or mental habits. Someone who shows self-knowledge is preferred over someone else who doesn't. More than factual knowledge, evidence of self-knowledge is much cherished in candidates, for education is after all about self-discovery and self-development.

Whatever you do, don't be boring and predictable in giving your answers. If you can be entertaining and playfully clever at the same time, you are in with a shout, there being no right or wrong

比起空有知識的學生，答案中能表現對自我有充分認識的考生更容易獲得大學垂青，因為教育歸根究底是一個自我發現自我成長的過程。

無論如何，作答時千萬不要毫無新意。若能風趣與機智兼備，你便已一腳踏進大學之門了。考題一概沒有正確答案，以便挑選善於自由聯想、意念創新，能對知識活學活用的考生。注重知識量的東方入學考試與注重創意的牛津劍橋入學考試之間確實有著天淵之別。

80歲的劍橋碩士生

在當今這個講求創新的年代，知識更新的速度越來越快。換言之，今天的知識不等於明天的競爭力。多年前，香港唯一一位擁有國際知名度的小說家查良鏞先生被劍橋授予榮譽博士學位。在接受榮譽之時，80歲高齡的查先生提出了一個出人意料的請求，他表示希望成為劍橋的全日制碩士學生。查先生如願以償，並最終在86歲時攻下博士學位。我問他為什麼要讀劍橋的碩士和博士，他說：「我只想證明自己配得上劍橋頒給我的榮譽學位。」我又問他劍橋教育與眾不同之處，他說劍橋只在乎創意，人云亦云的「二手」想法在此毫無立足之地。

國內學生可說是在試卷堆裡長大的，是出了名的久經考場歷練的「勇士」。或許是題海戰術的輪番轟炸造就了內地學生「談笑間，試題灰飛煙滅」的淡定，因此與大部分西方考生相比，國內學生在PISA考試中總能立於不敗之地。香港的學生在應



教育歸根究底是一個自我發現自我成長的過程
Education is about self-discovery and self-development



考生幾乎無法為牛津劍橋的入學試題作任何準備

The Oxford and Cambridge admissions questions are not something one can bone up for, or be prepped for.

answers. They look for the ability to free-associate, to scour every nook and cranny of thought, to go down untrodden paths, and to be liberated from the tyranny of facts. This is a far cry from the Eastern fetish with facts.

80-year-old Master's Student at Cambridge

Facts, in this age of innovation, tend to have a short shelf life. An addiction to facts often means that someone is insufficiently future-proof. Years ago, Louis Cha, Hong Kong's only world-famous writer, a prolific author of martial arts novels, was granted an honorary doctorate by Cambridge University. While gratefully accepting the honour, he made an unheard-of request to be admitted as a full-time student in a Master's Degree programme at the advanced age of 80, finally obtaining his earned doctorate at the young age of 86. When I asked him why he did this, his reply was simple: 'I wanted to prove that I was worthy of the doctorate they conferred on me.' And when asked how distinctive a Cambridge education is, he said that Cambridge only cares for originality. It has no use for derivative thinking.

Mainland students are famous for being fearless exam warriors. They practically grow up in the test trenches. This immunity to exam shell-shock partially explains why they consistently outperform most of their Western peers in PISA tests. Elite Hong Kong students are not far behind in being battle-hardened. But they both woefully lack the free-flowing, wide-ranging, field-commanding intellect sought after by Oxbridge recruiters. Macao students are lucky in not being subjected to the pressure cooker of public exams. They should therefore have more room for intellectual adventures. We should all be like Louis Cha for whom learning has no age limits.

The Meaning of Education

As the school year draws to a close, students will be out job-hunting in earnest. There is a lesson in Oxbridge admissions questions

試能力方面也不遑多讓。但若論無拘無束的想像力，敏捷的才思，淵博的知識和當機立斷解決問題的能力，兩地學生都嚴重匱乏，而這些恰恰是劍橋牛津等名校最為注重的才能。澳門學生比較幸運，沒有公開考試的壓力，因此理應有更多空間讓思緒自由翱翔。我們每個人都應學習查先生那種「生命不息，學習不止」的進取精神。

教育的真意

畢業季將至，應屆畢業生很快就要走出校門開始求職。其實牛津劍橋入學試題對面試公司也頗有啟示。大部分面試問題都毫無新意，完全可以事先做好準備。但能完美回答面試問題的人未必就是最合適的人選。面試官其實也知道面試問題回答的好不好與求職者未來的工作表現沒什麼必然聯繫，但這種做法依然在持續。面試官或許應該借鑒牛津劍橋入學考試的做法，問一些反常規的古怪問題。這種方法的妙處在於，能在不經意間給求職者一個措手不及，令其無法套用事先準備好的標準答案。這樣面試官便有機會一窺求職者的真實一面。

隨著經濟全球化創新化的趨勢越演越烈，很多工作崗位都有可能流失到海外國家或者被機器取代，有些則遲早要被淘汰。但永遠無法被取代、永遠經得起時間考驗的就是創造力。遺憾的是，在鼓勵發散性思維和創新能力方面，我們的教育制度似乎遠遠落後於西方。

牛津劍橋的入學試題貌似兒戲，但留給我們關於教育的思考卻頗有深意。教育的價值在於為思維鬆綁，應對改變和未知所帶來的挑戰。可能你不一定非要入讀牛津劍橋，但如果你想進入任何一間頂尖學府，萬萬不可死記硬背事先準備好的答案。📖



教育的價值在於為思維鬆綁

A meaningful education is about freeing the intellect

even for the job interview process. Many hiring questions are so predictable that job seekers usually come armed with the ‘right’ answers. But giving the right answers is not the same as being the right match for the positions sought. It is well-known to job recruiters that giving pat answers is often a poor prediction of future job success and yet the practice persists. Employers should take to the Oxbridge practice of asking wacky questions. There is something to be said for their subtle technique: If you can disorient candidates, get them out of their comfort zones, you might have a better chance of discovering the real person behind their answers.

Now that we are knee-deep in the innovative global economy, many jobs are either off-shoreable, machine-replaceable or destined for obsolescence. The only skill that is durable, bankable and irreplaceable is creativity. It seems that our education system is seriously behind the curve in promoting lateral thinking and individual originality.

The Oxbridge admissions questions, silly as they may seem, have a hidden but timely message for us about a meaningful education: the freeing of the intellect to face the challenge of change or the future. You may not be Oxford or Cambridge-bound, but if you want to enter any hallowed halls of learning, the last thing you want to do is to force-feed yourself with precooked answers. 📖

「以科研貢獻世界。」

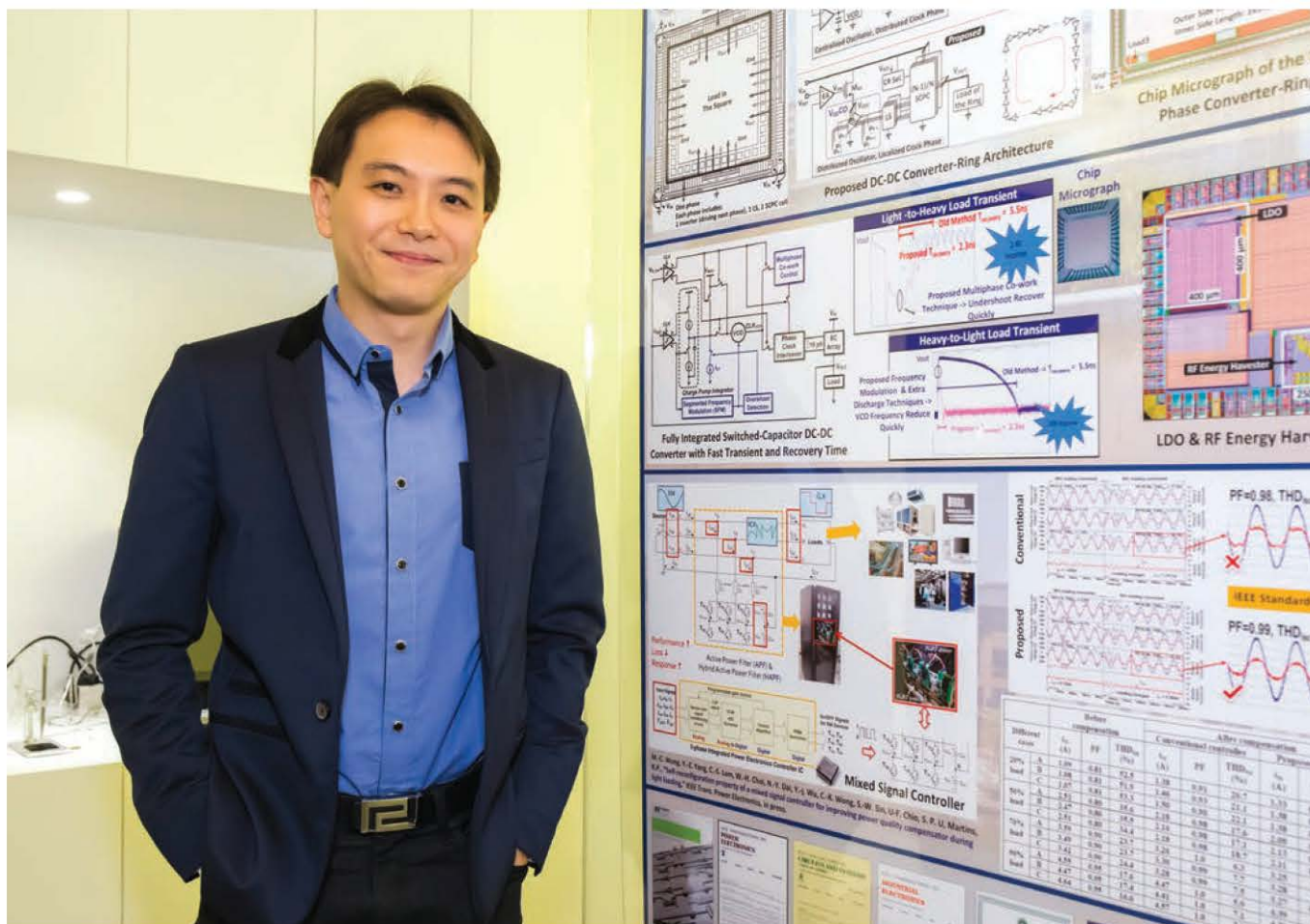
澳門電力電子專家林智聲

Made-in-UM Power Quality Compensator *Macao's Power Electronics Expert Lam Chi Seng*

文 Text | 馬希雯 Cecilia Ma 圖 Photo | 譚金榮、部分由受訪者提供 Eric Tam, with some provided by the interviewee

有人說澳門是一個福地，自然災害和能源短缺似乎與我們無關。但在澳門土生土長，在澳門大學完成本科、碩士、博士的電力電子專家林智聲卻有不一樣的想法。他眼見世界面對著能源短缺的問題，希望運用自己多年所學，減輕能源資源的虛耗。自2006年起，他和澳大的研究團隊開始著手研發一部「澳門製造」的低成本及低損耗電流質量補償省電裝置，冀以科研力量，貢獻世界。

Some say Macao is blessed by a lack of natural disasters and energy shortages. But Lam Chi Seng, a native of Macao who completed his bachelor's, master's, and PhD studies at the University of Macau (UM), thinks differently. Knowing that energy shortage is a global issue which, if left unaddressed, will eventually affect everyone in the world, Lam has spent many years in search of ways to reduce energy waste. In 2006, Lam and his team at UM began developing a power quality compensator, which they hope will benefit not just the local community, but the rest of the world.



55V/1.65kVA
低成本及低損耗的新一代
電流質量補償器（實驗物理平台）

55V/1.65kVA
Low-Cost and Low-Loss New Generation
Current Quality Compensator
(Experimental Platform)



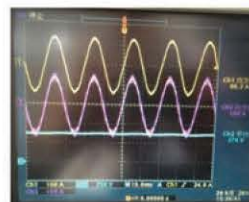
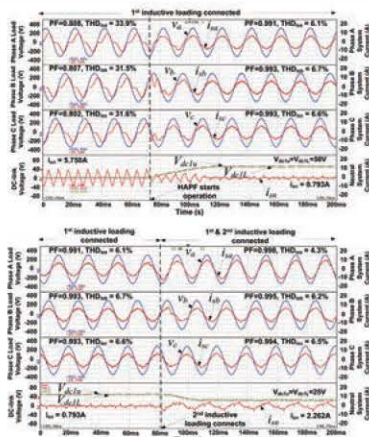
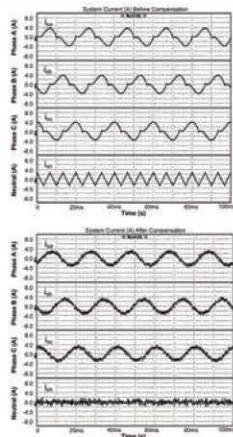
220V/10kVA
低成本及低損耗的新一代
電流質量補償器（實驗物理平台）

220V/10kVA
Low-Cost and Low-Loss New Generation
Current Quality Compensator
(Experimental Platform)



400V/70kVA
低成本及低損耗的新一代
電流質量補償器（工業化進程）

400V/70kVA
Low-Cost and Low-Loss New Generation
Current Quality Compensator
(Industrialization Process)



省電裝置研發進程

Milestones in developing the power quality compensator

以科研實現環保節能

「我們希望找到一個方法，可以減少電源的損耗，達到節省能源的效果。」林智聲1999年入讀澳大電機及電子工程學士課程，本科畢業後先後獲澳門基金會碩士獎學金及澳門特區政府博士獎學金資助下在澳大繼續深造，一口氣在澳大完成本科、碩士、博士課程，就連人生的第一份工作也獻給澳大。他讀研究生的時候，本著為解決電能質量污染和地球能源短缺問題的理念，嘗試在他擅長的電力、電力電子及配電網等研究領域找出可行方案，於是他碩士畢業後與論文的指導老師、電機及電腦工程系的黃民聰副教授組成團隊，合力研發一個低成本、低損耗的電流質量補償節能裝置。

2006年，林智聲與黃教授的研究團隊獲得澳門科學技術發展基金及澳大研究委員會支持，成功開展了此研究項目，著手提出新系統結構、理論推

Contributing to Environmental Protection and Energy Conservation through Scientific Research

'We hope to find a way to reduce power consumption to save energy,' Lam says. Lam started his bachelor's degree programme in electrical and electronics engineering at UM in 1999. After completing his bachelor's studies, he went on to pursue master's and PhD degrees at UM on scholarships from the Macao Foundation and the Macao SAR government, respectively. His first job was also at UM. While a master's student, Lam tried to find feasible solutions to power quality pollution and energy shortage by using his expertise in the fields of electricity, power electronics, and electricity distribution network. After completing his master's studies, he teamed up with Prof Wong Man Chung from the Department of Electrical and Computer Engineering, who was the supervisor of his master's thesis. Together, they began developing a low-cost and low-loss power quality compensator.

In 2006, Lam and Wong received support from the Science and Technology Development Fund of the Macao SAR and UM Research Committee, which allowed them to carry out the research project. They proposed new system structures, theories, and control



博士論文答辯通過後，林智聲與兩位導師韓英鐸院士（右一）、黃民聰副教授（左一），以及副校長馬許願（研究）教授合照。

Lam Chi Seng with his two mentors Prof Han Yingduo (1st from right) and Prof Wong Man Chung (1st from left), and UM Vice Rector (Research) Rui Martins, after completing his PhD oral defense.

導、新控制算法，進行仿真及設計搭建第一代補償節能裝置平台。研發初期，林智聲日間在澳大校園發展及工程處擔任工程師，晚上下班便躲在電力電子實驗室做科研，他覺得最困難的並不是日夜無間的工作，而是要突破科研的瓶頸，推出新的電路結構與控制算法。

擁有了初步理論技術和搭建第一代裝置平台的基礎後，研究團隊自2009年起，更加深入研究解決低成本及低損耗的電流質量補償節能裝置有可能出現的一系列新技術問題。基於朝向節能省電的目標，研究團隊不斷研究與試驗，逐漸研發出一些新的電路結構和控制算法，並在國際期刊及會議上發表了超過20篇學術論文，有些發表在世界最頂尖電力電子界期刊，如《IEEE Transactions on Industrial Electronics》（2013/2014年影響因子:6.5）、《IEEE Transactions on Power Electronics》（2013/2014年影響因子:5.726）等。這些研究成果更被林智聲與黃民聰副教授輯錄成專著《混合有源電力濾波器的設計與控制》（Design and Control of Hybrid Active Power Filters），獲得

algorithms, and established the first-generation power quality compensator platform. In the beginning, Lam worked as an engineer at UM's Campus Development and Engineering Section during the day and conducted research in the Power Electronics Laboratory at night. But working day and night was not the most difficult aspect. The real challenge was to break through the bottlenecks in his research and develop new circuit structures and control algorithms.

In 2009, after having developed preliminary theories and technologies and established the first-generation compensator platform, the team began to study a series of new technical problems that might occur in a low-cost and low-loss power quality compensator. They gradually developed some new circuit structures and control algorithms and went on to publish more than 20 academic papers at international conferences and in international journals, including some top journals in the field of power electronics, including the *IEEE Transactions on Industrial Electronics* (with an impact factor of 6.5 in the Science Citation Index for the 2013/2014 period) and the *IEEE Transactions on Power Electronics* (with an impact factor of 5.726 for the 2013/2014 period). In 2014, Lam and Wong published their research results in a book entitled 'Design and Control of Hybrid Active Power Filters'; the book was published by Springer, the world's largest publisher in the fields of science, technology and medicine. In the same year, their research project also received the third prize in the Technological Invention Award category at the Macao Science and Technology Awards. They also applied for patents in China and the United States, two of which have been granted. The team is now working on converting their patented technologies to products that have applications in everyday life.

Developing Power Quality Compensator From Scratch

Over the past decade, Lam and his team have developed three generations of power quality compensators. 'The current power quality compensator is in its third generation,' says Lam. 'Not only can it significantly reduce the cost and operating loss of active power quality compensators that are currently available on the market,



林智聲在專題研討會擔任主講者

Lam Chi Seng giving a keynote speech at an academic conference

世界科學、技術與醫學領域中最大書籍出版商施普林格（Springer）於2014年出版，同年此研究項目更獲澳門科學技術獎技術發明三等獎。再者，這些研究發現亦推動著電力電子科研的進步，研究團隊為他們的科研成果分別申請了國內和美國的專利，其中兩個專利已經被授權。現在團隊掌握了這些關鍵的技術專利，逐漸朝向轉化成可以實際應用在日常生活上的工業化平台產品。

從零開始研發省電裝置

將近10年時間，林智聲與研究團隊已研發出三代的省電裝置。林智聲稱：「這個低成本、低損耗的電流補償裝置，好處是可以顯著地降低傳統市面上成本比較昂貴、損耗比較大的有源電流質量補償裝置的成本和運行損耗，同時它可透過減少輸配電網的損耗，從而提升輸配電網的效率及保護用電設備，從而達到節能、減少二氧化碳排放的目標。」整個裝置可謂「澳大製造」，從概念、裝置電路結構及控制算法都是林智聲與黃民聰副教授帶領團隊一手研發，成本估計會比市面上有源電流質量補償裝置較低，運行損耗估計亦可以減低至2-3%左右。「省電裝置除了可以達到環保節能的效果之外，亦能夠為用電戶減少電費的支出，特別能為一些用電量比較大的用戶帶來較可觀的經濟效益，無論是對用電戶還是電力供應商，都是一個雙贏的局面。」



省電裝置已申請了國內和美國的專利

The power quality compensator has been granted patents in China and the United States



林智聲憑電流質量補償省電裝置奪多個獎項

Lam Chi Seng has received various awards for the power quality compensator

it also helps to increase the efficiency of power transmission and distribution and protect electrical equipment, thereby realising energy conservation and reducing carbon dioxide emission.' The compensator is entirely 'made in UM'. Everything, from concept development, to circuit construction, to control algorithms, was undertaken by Lam and Wong and their team members from scratch. The cost of this UM-developed compensator is lower than that of the active power quality compensators that are available on the market, and it is estimated that the operating loss will be reduced to between 2 per cent and 3 per cent. 'In addition to environmental protection and energy conservation, the compensator can bring substantial economic benefits to major power consumers by helping them reduce electricity bills. So it creates a win-win situation for both power consumers and suppliers,' says Lam.

It took Lam and his team members nearly a decade to successfully develop the latest version of power quality compensator. They have already installed it on a test site in Macao for testing purposes.

Life-changing Mentors

'Technology brings convenience to people's lives!' It was this simple thought that drove the young Lam to dream of becoming an engineer or scientist. In 1999, the year Macao returned to China, he was recommended by UM for direct admission, bringing him one step closer to realising his dream.

Teaching is a profession that allows one life to influence many others. It is no exaggeration to say that a good teacher can change a student's life. Lam's career choice was deeply influenced by the life-changing mentors he met at UM. After receiving his bachelor's degree, Lam chanced upon a lecture by Prof Wong about power quality, environmental protection, and energy conservation. Feeling that power quality pollution and energy shortage are global issues,



黃民聰副教授（左）和林智聲的研究項目獲2014年澳門科學技術獎技術發明三等獎

Wong Man Chung (left) and Lam Chi Seng received the third prize in the Technological Invention Award category at the Macao Science and Technology Awards 2014 for their research project

他們所研發的省電裝置，花了近10年時間，整個裝置由零開始，從一個概念轉變成為現時的一個工業化裝置，並已安裝在澳門一個試點上進行實際運作測試。林智聲表示自己能夠一步一腳印踏上科研之路，成長路上深受澳大影響。

遇上影響一生的人生導師

「科技能為人類帶來方便！」1999年青澀的林智聲認為科技的力量大無比，腦海曾閃過做工程師或科研學者的夢想，希望藉此為人類生活帶來便利。他在澳門回歸之年以澳大推薦直接入學的身份入讀，一步一步實踐人生的夢想。

教師是以生命影響生命的工作，人生遇上好老師，改變往往是一輩子。林智聲之所以踏上科研之路，與在澳大遇上改變他的導師不無關係。他在學士畢業後，有次剛好聽到黃民聰副教授介紹一些電能質量和環保節能的研究課題報告，覺得電能質量污染和能源短缺將是世界性的問題，決心向此鑽研。他坦言與黃教授相識15年，早已超越師徒關係，更視對方為人生知己。另一位對林智聲影響深遠的，是他的博士導師——著名電力系統及其自動化專家、中國工程院院士韓英鐸教授。「老闆和領袖的分別是，前者在高山上只喊著成員儘快爬上高山，領袖則會和成員互相扶持爬上高山。但我敬重的兩位人生導師卻願意匍匐在地，把殿後的年青人逐一扶上高山。」林智聲坦然深受這種提携後輩的精神所影響，而他也時刻不忘遵從恩師的身教。

Lam decided to pursue further studies in these areas. Having known each other for 15 years, Lam and Wong are not just teacher and student, but also kindred spirits. Another life-changing mentor for Lam is his PhD supervisor Prof Han Yingduo, a renowned expert on power systems and their automation and member of the Chinese Academy of Engineering. 'The difference between a boss and a leader is that a boss calls from the top of a mountain for the others to climb up as quickly as possible, while a leader climbs the mountain with the others, everyone supporting everyone else along the way,' says Lam. 'But my two mentors go one better. They are willing to lie on the ground, helping young people up the mountain one by one.' Lam is deeply influenced by the humility and the generous guidance from the two mentors. A teacher himself now, he is always reminded to do the same for his students.

Chips, A New Beginning

Merely in his 30s, Lam's research career is just beginning. In August 2013, Lam joined UM's State Key Laboratory of Analog and Mixed-Signal VLSI as an assistant professor, focusing on combining power electronics, his long-time area of expertise, with microelectronics chip technologies. 'My first goal is to improve the effectiveness of electrical



林智聲慶幸在澳大遇上改變人生的導師

Lam Chi Seng feels lucky to have met two life-changing mentors at UM

芯片研發——新的起點

年僅而立之年的林智聲，科研人生路仍然只不過是一個起步點。過去他一直從事電力電子方面的研究，由2013年8月起加入了澳大模擬與混合信號超大規模集成電路國家重點實驗室擔任助理教授，主力結合電力電子與微電子芯片技術，研究工作有了新的起點——芯片研發。

「我第一個目標是希望利用芯片技術去改善電力裝置及電子設備的效能，運用在電網或者智能電網上，使電網更加穩定、更有效率，達到節能的目標。我同時亦希望利用自己多年從事電力電子研究的經驗應用到芯片研發上，從而提升能源管理芯片的效能。」

愛因斯坦曾說：「人們把我的成功，歸因於我的天才；其實我的天才只是刻苦罷了。」相信若沒有過去10多年以來埋頭鑽研學問的努力和刻苦的精神，林智聲和他的團隊是不會取得今天的成果。成功者永遠在路上。林智聲為了實現科研的夢想，他矢言會不斷接受挑戰。「我們最終研究目標是希望把一手一腳研發出的低成本及低損耗的電流質量補償省電裝置逐步推向社會，以科研技術改善人類生活。」

installations and electronic equipment through chip technologies, and to apply chip technologies to power grids and smart grids, to make them more stable and efficient so as to conserve energy,' Lam says. 'I also hope to apply my experience in power electronics to chip development to increase the effectiveness of power management chips.'

Albert Einstein once said, 'Genius is 1% inspiration and 99% percent perspiration.' Without the hard work over the past decade, Lam and his team would not have been able to achieve what they have achieved today. 'Our ultimate goal is to promote our low-cost and low-loss power quality compensator on the market to improve people's lives,' he says.



林智聲在從事博士後研究員期間參與香港理工大學電動車充電裝置之研究

Lam Chi Seng participated in the development of a charging device for electric vehicles at the Hong Kong Polytechnic University as a post-doctoral researcher



短片：林智聲談省電裝置的研究發展

Video: Lam Chi Seng talks about the development of power quality compensator

電力在澳門的供應服務已經超過一個世紀，根據澳電年報資料，1999年澳門總用電量（電度）為1,682吉瓦時，到2013年澳門的總用電量（電度）已躍升2.6倍至4,409吉瓦時，而且2013年澳門輸配電損耗電度已升至140吉瓦時，大約為澳門幣一億元。隨著2015年至2017年期間本澳將有多間大型的酒店及娛樂設施落成，預計未來三年內，用電需求及輸配電損耗將隨之增加。

Electricity supply service began in Macao over a century ago. According to data from the annual report of CEM, total electricity consumption in Macao in 1999 was 1,682GWh; in 2013, total electricity consumption more than doubled to 4,409GWh, and the total loss in power transmission and distribution was 140GWh, which amounted to approximately 100 million patacas. Between 2015 and 2017, several large hotels and resorts are expected to become operational, which will translate into more electricity demand and more loss in power transmission and distribution.



馬英以13.76秒「最長飛行時間」名揚國際

Ma Ieng places second in the Longest Airtime category with an airtime of 13.76 seconds

世界紙飛機大賽亞軍： 馬英的飛行夢

Ma Ieng Lets His Dream Fly

文 Text | 張愛華 Ella Cheong 圖 Photo | 李思、部分由受訪者提供 Manuel Reis, with some provided by the interviewee

發明現代飛機的萊特兄弟，在小時候，是因為一個用紙、竹子及軟木製成的直升機玩具而激發他倆對飛行的夢想。正因為人們永遠心懷夢想，世界才可以變得不一樣。

剛在今年5月奪得世界紙飛機大賽「最長飛行時間」組亞軍的澳門大學機電工程系一年級學生馬英，他的夢想也由小小的一架紙飛機而起，他希望將來能像萊特兄弟一樣，乘著自己製造的飛機，讓夢想一飛沖天。

It was a toy helicopter made of paper, cork and bamboo and powered by rubber bands that sparked the Wright brothers' interest in flying.

Like the Wright brothers, Ma Ieng's dream to fly also began with a toy plane. A first-year student in the Department of Electromechanical Engineering, Ma was the first runner-up in the Longest Airtime category at the 2015 Red Bull Paper Wings, an international paper plane competition attended by more than 46,000 contestants from around the world.



自學紙摺飛機

不少人在童年時都有玩過紙飛機，一張四方紙摺成一架飛機，把它飛向空中，再落下，然後緊緊地盯著，看誰的飛得最高、飛得最遠。這個玩意，馬英在童年時也玩過，但真正很專注很認真地去玩，而且視為一樣興趣，是始於四年前。

「當時，澳門首次有紙飛機比賽，我知道後，自己上網查資料，觀看世界冠軍的比賽片段等，學習他們摺紙飛機的技巧，然後再琢磨和改良自己的飛機。身邊的人都奇怪我為何有這樣的興趣。」

中學讀澳門鏡平中學的馬英，物理科成績最好，與他愛動手操作和做實驗的性格不無關係。儘管當年沒有任何人指導，具自學精神的他自行摸索了一個多月後，最後獲得首屆全澳紙飛機賽季軍，令師長、同學，甚至父母都刮目相看。

四年來，馬英與隊友幾乎一直囊括澳門紙飛機的個人冠軍或團體組冠軍。他的父親當初也不好看他「玩」紙飛機的愛好，到他獲獎後發現兒子原

Self-taught Paper Plane Enthusiast

Many people have had the experience of flying a paper plane in childhood. Four years ago, when he was still in high school, Ma turned this old childhood game into a serious interest. 'I learned that there was going to be a paper plane competition,' Ma says. 'That was the first paper plane competition in Macao, and I searched information on the internet and watched videos of world champions and studied how they made paper planes in order to improve my own skills. Everyone around me was curious as to why I was so passionate about paper planes.'

After one month of trial and error as he taught himself how to make better paper planes, Ma participated in the competition and went home with third prize, surprising his teachers, classmates, and even his parents.

Since then, Ma and his teammates have gone on to sweep almost all the championships at various paper plane competitions in Macao. Even Ma's father, who initially had some reservations about his son's hobby, finally came around and realised that it was more than a hobby for Ma. 'Now, before a competition, my father would even keep me company in the early hours of the morning as I practiced in the park,' he says. 'His understanding and support make me want to work harder so I could do better in the next competition.'

來「不是玩」，繼而願意花時間在凌晨時分陪他在公園練習備賽。「這都是一份認同和肯定，我自此也以更認真和專注的態度去練習，也花更多課餘時間去研究如何提升紙飛機的上升能力，希望在賽場上取得更好成績。」

把科學理論應用在紙飛機上

由於對機械感興趣，去年馬英考入澳大機電工程系，希望日後可以朝這研究方向發展。進入大學後，他開始接觸與機械有關的理論，同時也遇到劉承堅博士這位「伯樂」的指導。「劉博士知道我們對紙飛機有興趣，課後經常跟我們交流和講解飛行理論。以前我們僅知道飛機飛得好，但不明白箇中原理，上大學後才知道是跟伯努力原理有關。」

原來要摺一架可以滯空和滑翔的飛機並非易事，背後涉及科學理論。馬英解釋他們根據流體原理在飛機頭位置摺一個風鎖，令飛機不會散開，空氣也不會流動到兩個機翼之間，減少阻力，機尾輕輕翹起，提高飛機的上升力。紙

The Science behind Paper Planes

Now a student in the Department of Electromechanical Engineering, Ma has graduated from being fascinated by the simple fun of flying paper planes to understanding the complex science behind them. Dr Lao Seng Kin, a faculty member in the department, knows Ma's interest in paper planes and often teaches him the relevant theories after class. 'Before, I didn't know what made an airplane fly, now I know it has to do with Bernoulli's principle,' Ma says.

It is not easy to make a paper plane that can glide and stay aloft for a long period of time; in order to do that one has to not only understand, but also effectively apply, many scientific theories in the making of paper planes. 'For example, we need to do something to the head of the paper plane to hold the plane together and also to prevent air from flowing between the wings so as to reduce resistance,' Ma explains. 'The plane's tail is slightly tilted up. According to Bernoulli's principle, this will produce the desired lift so that the plane can fly longer. As with a real plane, we need to make elevators at the tail of a paper plane to produce the desired lift.'

Beating over 46,000 Contestants

Opportunity awaits those who are ready. When he heard the Red Bull Paper Wings was opening for applications, Ma felt it was time to test his skills against contestants from around the world.



馬英奪世界紙飛機賽亞軍

Ma Ieng was the first runner-up at the 2015 Red Bull Paper Wings



馬英與何溢昌在世界紙飛機賽後合照

Ma Ieng and his teammate after the 2015 Red Bull Paper Wings

飛機和真飛機一樣，會在機翼尾端輕輕扭折或剪裁製造出升降舵，提升紙飛機向上的升力。

世界賽擊敗逾四萬對手

夢想是為有準備的人而來！馬英積累四年多的經驗和技巧令他足以與世界好手同場競逐。

世界紙飛機大賽是最大型的世界級賽事之一，由紙飛機協會(PAA)與健力士世界紀錄制定規則，每三年舉辦一次，均吸引來自世界各地的摺紙飛機高手參賽。今年的世界紙飛機比賽在奧地利薩爾茨堡舉行，來自80個國家和地區，超過4.6萬人報名參賽，最後只有約200名地區冠軍能晉身決賽。馬英與另兩名隊友澳大機電工程系一年級學生余健樂和鏡平中學的何溢昌勝出港澳區代表賽而獲得出戰世界賽的機會，三人最終不負所望贏得全場唯一最佳隊伍組殊榮，馬英更以13.76秒的超出預期成績在「最長飛行時間」組奪取亞軍，成績僅次於來自亞美尼亞的冠軍的14.36秒，成為港澳區唯一獲獎者。

The Red Bull Paper Wings is one of the largest international competitions in the world. It is held every three years under the rules developed by the Paper Aircraft Association (PAA) and the Guinness World Records regulations. This year's competition was held in Salzburg, Austria, attracting more than 46,000 contestants from 80 countries and regions. Approximately 200 regional champions entered the final. Ma and his teammates, U Kin Lok, a first-year student from the same department, and another student from Keang Peng School, represented the Hong Kong and Macao region at the final. The three won the sole Best Team Award. Ma placed second in the Longest Airtime category, with an airtime of 13.76 seconds, becoming the only winner from the Macao and Hong Kong region.

'I always wanted to participate in an international competition. I did better than I had expected, certainly better than how I did during my practice. Every competition has taught me so much. By constantly learning from others through these competitions, I have been able to improve the design of my own paper planes,' he says.

‘I hope to fly my own plane some day.’

A paper plane that looks unremarkable to an untrained eye has taken Ma beyond Macao onto an international competition. 'I always love



儘管學業繁忙，馬英與余健樂也把握課餘時間練習。

Ma Ieng and U Kin Lok practice diligently no matter how busy they are with school work

「能夠參加世界賽事與各國好手同台切磋一直是我的願望，今次比賽表現超乎預料，賽果比練習還要好。每一次比賽都可以令我們學習更多，賽後又可以吸納別人的長處再改良飛機的設計。」馬英雖年紀輕輕，但言談卻予人很成熟穩重的感覺。

乘著自己的飛機

別人眼中毫不起眼的紙飛機，卻成為馬英在國際上展示夢想的橋樑。「我喜歡仰望天空，常常幻想自己在空中滑翔的感覺，希望將來有機會像萊特兄弟一樣做一架可以滑翔的飛機。」

要實現這個夢想，難嗎？馬英腼腆地回答：「難的。我會一步步來，先從紙飛機開始，過兩年後，等機械知識基礎更紮實，我會嘗試動手做遙控飛機，希望有一天可以乘著自己製造的飛機，在空中翱翔。」

to look at the sky and I often daydream about what it'd be like to fly,' he says. 'I hope to fly my own plane some day, just like the Wright brothers.'

Knowing that it is not easy to achieve this dream, Ma plans to take it one step at a time. 'For the time being I will continue to work on paper planes,' he says. 'In about two years, when I have a more solid grasp of the knowledge and theories, I will try making remote controlled planes. And I hope one day I can fly my own plane in the sky.'



短片：世界紙飛機賽亞軍馬英談飛行夢
Video: Ma Ieng talks about his dream to fly

擊敗十萬演講對手 李珊珊的致勝之道

Competing with 100,000 Contestants Lisandra Speaks Up for Success

文 Chinese & English | 余偉業 Kelvin U 圖 Photo | 李思、部分由受訪者提供 Manuel Reis, with some provided by the interviewee
筆錄 Transcription | 校園記者鄭雁之 UM Reporter Christy Cheang

「那些你以為再也不見的朋友，或許在你婚禮上的那天出現；那些覺得你不够好的人，不用理會，你的成長路，只有你才最清楚。」

這些打動人心的句子出自澳門大學政府與公共行政學系二年級學生李珊珊（Lisandra）之口。她早前代表澳大英語演講隊參加第20屆「21世紀·可口可樂杯」全國英語演講比賽，從近10萬名參賽者中脫穎而出奪得冠軍，演講技巧殊不簡單。Lisandra把她今次取得的佳績歸功於澳大的支持和教練Randall Tran 的栽培。「若沒有他悉心的指導，我也沒法從全國選手中勝出比賽。」

‘The friends you thought you’d never see again come back to you perhaps on your wedding day. And to those who didn’t think that you were good enough, well, look how far you’ve come.’

This quote is from Lisandra Wagan Fesalbon, who is a member of the University of Macau’s (UM) Public Speaking Team, and champion of the ‘21st Century Coca-Cola Cup’ National English Speaking Competition held at Henan University, China. Of the 100,000 contestants who entered the competition in May 2014, only 64 made it to the national grand final. Lisandra, a second-year student of Government and Public Administration, attributes her success to her coach, Randall Tran, who is a teaching assistant at UM’s English Language Centre. ‘He treats the coaching position more than a job. Without his training, I wouldn’t have been able to beat so many strong contestants from around the country.’





Lisandra與教練Randall的關係亦師亦友
Randall is both a friend and coach to Lisandra

亦師亦友

作為一位稱職的教練，除了激發學生思考，懂得自我準備外，也需要不時觀察學生的言行舉止，把他們閒談時展現人前的優點，加入演說的風格中，從而令演講更添個人魅力。因此，建立一段亦師亦友的關係，彼此真誠以對，更有助演說訓練提升至更高的層次。擔任英語中心助教兼英語演講隊教練的Randall對此也有同感。

當Randall苦思怎樣的演繹方式才最搭配Lisandra時，他就從她的個人喜好著手。Randall坦言，他倆的演講風格南轅北轍，他自己本身慣看學術文章；Lisandra則好讀文學，而且她英文語感較強，可以把自己感性的一面投射於演講之中，也許這就主宰了兩者的區別。「當她在台上鏗鏘地說出每一句，字字能打入聽者心坎

Be Both Friend and Coach

The role of a coach is not only to stimulate students to be prepared, but also to observe their individual personalities in order to enhance a student's charisma within the context of the way he or she speaks. Therefore, forming a caring, authentic, honest and deep relationship with a student can bring the coaching performance to the next level. Randall agrees that both coaching and mentoring take the relationship a bit further and he finds Lisandra fun to work with.

'Like when I shape her speech to what was more suitable for her,' Tran said. 'She has a very different style from me. Her use of English has a greater capacity than me because she reads a lot. She reads literature; I read academic articles. So it comes from very different views. She is a more sensitive sort of person. When she says it out loud, it actually sounds really good to the ear. But in terms of content, there was something missing there, so I have to fix this part without taking away what is good.'

When they entered the contest on behalf of Macao and UM, Randall preferred to talk, not as a coach, but as a companion, because he

中。而我的責任則是填補她缺的東西，把經典的句子有機融入講稿當中，突顯她的氣質。」

在面對賽事時，Randall選擇卸下嚴師的鎧甲，變回一位同行打氣的友人。在代表澳門和澳大出戰全國英語演講比賽時，Randall不願見到Lisandra因壓力而影響表現。「我只想她發揮應有的水準，名次是其次，就儘管放手一試。」

掌聲背後

在台上短短兩分鐘內打動人心，絕非易事。平易近人的內容固然重要，但字裡行間如何穿插亮點，扣人心弦，才是致勝關鍵。然而即場演講的題目往往在最後一刻才揭曉，當不幸遇上自己不太熟悉或未能駕馭的難題時，那該怎麼辦呢？

「這才是好玩的地方。即席思考如何包裝自己不擅長的東西，是有一定難度的，但只要悉心鍛煉，自然就不是大問題。哪怕面對陌生的課題、沒甚麼好發揮的題目，都是有套路可循的。在日常訓練中，學生接觸到不同的工具以作應對，而我亦有自己的方法去訓練他們。」Randall說。

didn't want to put unnecessary pressure on Lisandra. 'I wanted her to do well, she wanted to do well but we didn't care much about the title. We are here anyway, just do it,' said Randall.

Dig for a Compelling Message

It's never easy to impress the audience within the first two minutes of a speech. A speech that is easy to comprehend is certainly crucial. But inserting gimmicks between the lines that make people laugh and cry is a key to winning. But it's challenging to be prepared for any table topic that might be assigned at the very last minute. So what could a student do in the face of topics with which she is not comfortable or familiar?

'That's the fun part and what initially I want for them. Impromptu speech forces a speaker to play with the content he or she might not know very well. But no worries. Practice makes perfect and the team is okay with it now. That's not a big issue,' he said. 'With table topic that they might have nothing to talk about, most of the students would feel puzzled. So I would provide them with necessary skills for speech organisation. There are ways to create an impressive beginning, middle and ending. I give them patterns to follow.'

During practice sessions, Randall would give Lisandra a table topic, for instance, a mobile phone. 'The pros and cons of the subject could be something appropriate to start with for a two-minute speech and practice will make them know how to track and what to follow,' Randall hinted.



Lisandra與Randall於賽後合照
Lisandra and Randall after the competition

訪問期間，Randall 即席出題考Lisandra。他隨便找一些不起眼的東西為題，如枱上的手機，然後組織為兩分鐘的稿。他說：「最簡單可從正反雙方的觀點說起，刺激思維。多作鍛煉，就自然形成一套思考模式。」

Randall常建議學生當遇上一些生動有趣、令你吐不快的文章，最好馬上用自己的語言消化文章，然後用一分鐘把文章精粹說出來。有時，講稿也要視乎讀者群的年紀和口味，投其所好。例如，當Lisandra遇上年輕的聽眾時，結尾時她會借用漫畫的經典對白，如《蝙蝠俠》中那句：不要害怕黑夜，因為黑夜的盡頭天總會亮。「通常這招換來的，是台下如雷的掌聲。」Lisandra笑道。

'If they struggle with the pros and cons, I'd tell them to try to sell the phone instead. Just give them different techniques, ways and goals for the table topic. So they would come to know what is comfortable to them, how they would say it, and how to use a personal story or quotes,' he said.

Reading provides speakers with useful information to draw on, but whether they can present it comfortably is another thing. So Randall always encourages the students he coaches, 'if you find anything compelling, any news or articles that you want to share, that you want to interpret, then you just digest it and talk about it for one minute.'

But in terms of what to say in a speech, Randall and Lisandra agree that it depends on the audience. 'If they are teenagers, you have to get something about your youth that can connect you with them,' said Lisandra. 'For example, "Do not fear the darkest of nights because it will always be followed by day." It was from the movie *Batman*, and I thought it was cool, so I used it. Proper use of this tactic often gets me a big round of applause in return.'



Lisandra憑卓越表現奪全國英語演講比賽冠軍
Lisandra wins the championship at a national English speaking competition



短片：李珊瑤談獲獎感受

Video: Lisandra talks about her experience of winning the competition



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翻譯乎？認知乎？

Translation? Cognition?

撰文 Text | 何元健、李德鳳, Yuanjian He & Steven D Li

澳門大學翻譯傳譯認知研究中心在2014年11月9日正式掛牌成立，趙偉校長、程海東副校長（學生事務）、香港中文大學王士元教授、台灣聯合大學系統校長曾志朗院士等等，出席了成立儀式。澳大歷來設有翻譯傳譯課程，含葡－漢／漢－葡、英－漢／漢－英、日－漢／漢－日等語種，包括學士副修、碩士、博士等課程。翻譯傳譯認知研究中心的設立，為推動翻譯傳譯的教學與研究更上一層樓。

The University of Macau's (UM) Centre for Studies of Translation, Interpreting and Cognition (CSTIC) was inaugurated on 9 November 2014. UM Rector Wei Zhao, Vice Rector for Student Affairs Haydn Chen, Prof William Shi-Yuan Wang from the Chinese University of Hong Kong, and University System of Taiwan Chancellor Dr Ovid J L Tzeng, along with other guests, attended the inauguration ceremony. UM has long offered translation and interpreting training programmes between various language pairs, including Portuguese and Chinese, English and Chinese, and Japanese and Chinese. The training programmes include a minor in translation, MA in Translation Studies, and PhD training in Translation Studies (offered under the PhD in Linguistics programme). The establishment of the CSTIC is expected to bring UM to a new level in teaching and research in the field of translation and interpreting studies.



譯事無處不在

翻譯自人類有語言起，便已存在。講不同語言的人要溝通，只好借助譯員的口頭傳譯或者書面文字轉譯。據說，諸葛亮深入不毛，平定南蠻，就有譯員隨行；鄭和七下西洋，隨員兼作翻譯。20世紀90年代之後，中國經濟高速起飛，融入全球化的大潮，今天赫然已居世界之重。隨之而來的，是譯事無處不在。貿易、金融、股市、媒體、涉外行政司法海關等，幾乎每日每時都涉及譯員的工作。對譯員的需求多了，自然就有了培訓譯員的要求。澳大的翻譯傳譯課程就是為了培養學生的雙語互譯能力而設。

翻譯學的興起

20世紀70年代，翻譯學正式興起成為一門獨立學科。所謂「興起」，是指由歐洲學者發起，再達至北美、亞洲、澳洲等地區。所謂「獨立」，有兩個意思。其一，要建立起一個關乎翻譯過程、翻譯作品，以及翻譯作品的社會文化功能的理論系統，使之可以有原則性的指導譯員培訓，不再依靠譯者抒發感受的隻字片語來指導翻譯教學。其二，要突破傳統。傳統上，翻譯屬於比較文學範疇。在中國，譯成中文的外國文學作品，是在中文系教的，屬於外國文學科的大範疇，也包括對這些已經譯成中文的外國文學作品的研究。在中文系，比較文學就是中、外文文學的對比研究。但是，中文系老師自己基本不做翻譯，靠的是外



澳大學生為校外活動作傳譯

A UM student interpreting for an event

Translation Is Everywhere

Translation is as old as language itself. If people who speak different languages want to communicate with one another, they have to rely on the help of a competent translator or interpreter. It is said that Zhuge Liang, the famous statesman, ideologist and strategist during the Three Kingdoms Period in ancient China, was accompanied by a translator during his military campaign aimed to pacify the southern tribes. Another distinguished historical figure, Admiral Zheng He, was also accompanied by a translator during his seven epic voyages to Southeast Asia, the Middle East, and Africa. Since the 1990s, China has experienced rapid economic growth amid the trend of globalisation, and is now one of the major economic powers in the world. With this comes an increasing demand for translators and interpreters in practically every sphere of society, which has in turn fuelled the demand for the training of these professionals. UM's programmes in translation and interpreting were designed precisely for the purpose of equipping students with bilingual proficiency.

The Rise of Translation Studies

In the 1970s, Translation Studies first rose as a new academic discipline. The discipline was started by European scholars and later spread to other parts of the world, including North America, Asia, and Australia. Translation Studies as an independent discipline has two meanings. First, it means the construction of a theoretical system that studies the process of translation, translated works, and the social and cultural functions of translated works. Thus done, training of translators can be conducted within the framework of the system following a set of principles instead of relying on snippets of subjective experience sharing by individual translators. Second, it means breaking away from tradition. Traditionally, Translation Studies was a sub-discipline of Comparative Literary Studies. In China, literary works translated from foreign languages into Chinese are taught in the Chinese department as part of Foreign Literature Studies, which also deals with the studies of the original texts of these translated works. Comparative Literature Studies in the Chinese department is the comparative study of Chinese literature and foreign literature. However, faculty members in the Chinese department generally do not engage in the practice of translation. Instead, they use literary works which have been translated into Chinese by faculty members in the department of foreign languages or professional translators as material for teaching and research. Also, Comparative Literature Studies in the Chinese department does not study the process of translation itself, because to do so one must have a good command of the foreign languages involved. As a result, comparative study of the process of translation and of the quality of translated works falls on the shoulder of the department of foreign languages. Comparative Literature Studies in the department of foreign languages often means comparative studies of foreign literary works and their translated versions in Chinese, or comparative studies of Chinese literary works and their translated versions in foreign languages. Interestingly, such a translated works-oriented two-way approach is also a widely adopted practice in Chinese departments at foreign universities.



澳大首次舉辦翻譯傳譯認知研究國際研討會

The first International Symposium on Cognitive Research on Translation and Interpreting held at UM

文系老師和社會上的外語人才已經做出的外國文學譯本來教書和做研究。另外，中文系的比較文學研究不涉及翻譯過程本身，因為非通曉外文而不可。這樣一來，涉及翻譯過程、譯文質量的對比研究，就落到外文系身上。於是，外文系的比較文學常常是拿外國文學作品和它的中文譯本進行對比，以及拿中國文學作品和它的外文譯本進行對比。這種雙向的、基於譯文的中、外文學作品的對比研究，在海外的中文系也是大行其道，有異曲同工之妙！

翻譯是大腦認知能力的應用

古今中外，翻譯活動的一個非常實際的用處，就是用於外語教學。你要學一門外語嗎？好，教你一些生詞，教你一些語法，然後就是反覆地來回翻譯。翻譯得越多，你對要學的语言就越熟悉；翻譯的東西越高深，證明你的進步越大。問題是，在兩種語言的來回轉譯之中，對學生掌握一門原來完全不熟悉的語言到底起了甚麼樣的作用？須知，這個過程並不是拿起筆做功課而已，而是通過大腦來完成的。大腦才是完成轉譯的地

Translation Relies on the Brain's Cognitive Function

Throughout history, translation has served a very practical purpose in teaching foreign languages to non-native speakers. You want to learn a foreign language? Okay, let me teach you some new words and grammar rules, and then let us do translation exercises in both directions over and over again. The more translation exercises you do, the more familiar you will become with the language. The more difficult the content you can translate, the more you have progressed in the foreign language you are learning. But the question is: what role do such translation exercises between two languages play in helping students grasp a language of which they had no knowledge to begin with? We have to understand that translation is not like taking out a pen to do a piece of homework; it is a process that takes place inside the brain. In other words, the brain is where the translation is really done. It does not matter who the translator or sponsor is, what the intention or purpose of translation is (be it for revolution, democracy, science, spread of the gospel, or for the appreciation of literature), what the ideological orientation is, or what the religious beliefs are. The conversion from the source language to the target language must go through the brain. There is simply no other way to accomplish this process. Translation is a mental activity, or, to be exact, a cognitive process where linguistic signals (whether alphabetic or phonetic) are received by one's sense organs (such as the eyes or the ears), decoded by the brain, and then sent out again, also in the form of linguistic signals, but in a different language. Because this process of conversion

方。不管是誰來做翻譯，不管譯者受誰贊助，意圖與初衷如何（做翻譯是為了革命，還是為了民主科學，還是為了傳播福音，還是為了欣賞文學），意識形態傾向如何，宗教信仰如何，源語至譯語的轉換必須經過大腦，別無他途，是譯者的腦力勞動，或者說是大腦的認知活動。感官（如眼、耳）接收到的言語信號（字元或語音）通過大腦解碼之後，其中的資訊再通過大腦用另一種言語信號傳遞出去。因為語言系統的轉換、語境、文化、意識形態等等的不同，接收到「資訊」跟再傳遞的「資訊」之間必然有一個「整合」過程，這就是最嚴格意義上的翻譯。

要研究翻譯的認知過程，必須採納經驗科學的研究方法。即系統地採樣、系統地觀察與分析採到的樣本、系統地對分析結果進行解釋。成熟的經驗學科如物理、化學、生物以及各類工程學，在上述三個階段都有成套的理論和方法程式。研究對象跟人有關的心理學和語言學，理論和方法程式也相當完備，尤其是實驗心理學。另外，過去30年經濟、科學技術的發展帶來的一項碩果，就是高科技產品比以往任何時候都更普及，使研究者們受惠，比如大容量、高效能的計算機、各種便利研究的軟件（比如統計程式、鍵盤輸入記錄程式等等）、

involves dealing with the differences with respect to a number of factors, including linguistic contexts, cultures, and ideologies, there is necessarily a process of 'integration' between when the signals are received and when the converted signals are transmitted, and this is what 'translation' means in the strictest sense of the word.

To study the cognitive process of translation, one must adopt the methodology of empirical sciences; that is, to systematically collect, observe and analyse samples and then to systematically interpret the results. In mature sciences such as physics, chemistry, biology and engineering, there are well-developed theoretical and methodological formulas in each of the three steps mentioned above. In disciplines such as psychology and linguistics, where the object of study concerns humans, there are also well-developed theoretical and methodological formulas. This is especially true of experimental psychology. Moreover, as a result of the rapid development in economic, scientific and technological realms over the past three decades, high-tech apparatuses are being used more widely than ever, greatly benefitting researchers. For instance, high-performance computers, software that facilitates research (such as statistical analysis programme, keylogger, etc), eye trackers, EEG, MEG, PET, MRI, and the like were thought to be used by scientists only, but they are now used in Translation Studies.

The input of one language and the output of another in the process of translation (especially in interpreting) involves the various functions of the brain, especially the cognitive function. Therefore, it is impossible to study the process of translation without using these tools. Scholars of the humanities use laboratory equipment to solve problems in their own fields (eg: using fMRI to scan the brain of a reader while reading



澳大同傳訓練室

UM's Simultaneous Interpretation Laboratory



澳大翻譯傳譯課程學生經常獲獎

Students of UM's translation and interpreting programmes have received numerous awards

眼動儀 (eye-tracker)、腦電波儀 (EEG)、腦磁波儀 (MEG)、正電子儀 (PET)、磁共振儀 (MRI) 等等。這些以前以為只有科技研究者才用的工具，翻譯研究者也照樣用。

翻譯（尤其是傳譯）時不同語言的一進一出，完全是人的大腦和認知能力的應用，非用這些工具而不逮。人文學者應用實驗工具解決自己的問題（再如用fMRI調查讀者閱讀文學作品時的大腦成像），科技學者應用實驗工具解決跟人文有關的問題（譬如自然語言處理），二者之間交叉融合，似乎是學科發展的方向、時代前進的象徵。當然，翻譯研究者如果沒有自己的實驗設備，大可作為的地方就是建立語料庫。語料庫可以是文本，也可以是口譯錄音及其文字的轉寫。

應用語料庫進行翻譯研究


傳統的語料庫技術是從語料庫語言學和計算語言學那裡傳承下來的。初衷是採集大量的自然語言語料，從中找到語法規則和語言應用的規則，尤其是語素和詞組的規則。理論上，它是特意要與由理論導向的語言研究相對抗（譬如不相信存

literary works), while scholars in science and technology use laboratory equipment to solve problems related to the humanities (eg. Natural Language Processing, NLP). The infusion of the two seems to be the trend and a sign of the progress of society. Of course, one area where there is great potential to be tapped by scholars of Translation Studies, in the absence of their own specialised laboratory equipment, is the construction of corpus, which could consist of texts, recordings of interpretation, or transcripts of such recordings.


Using Corpus in Translation Studies

Traditional corpus technologies come from corpus linguistics and computational linguistics. The original purpose was to collect a large body of natural language data in order to find grammar rules and language usage rules, especially morpheme- and phrase-related rules. Theoretically, this approach deliberately defies the theory-oriented approach to the studies of languages (eg: it does not believe in the existence of universal grammar rules, and maintains instead that any language is a collection of set structures.) Technically, a computer is generally able to search for forms, morphemes, and phrases of a limited length. However, when it comes to searching for sentences or linguistic units above the sentence level, the task becomes more difficult for a computer, and this is when human annotations become necessary. Researchers making manual annotations is an unavoidable part of using corpora in Translation Studies. This is because under most circumstances when we are studying the texts (source text and translated text), we are not looking at morphemes or words but

在普遍語法規則、認為語言系統是各種特定構式的集合)。技術上,計算機搜索形態、語素、長度有限的詞組,基本上做得到,而要搜索句式和比句大的語言單位,就有困難,必須要進行人工標註。而研究者要親力親為去做標註,正是利用語料庫來研究翻譯不可避免的一關,因為我們要從文本(原文和譯文)中去看的東西,絕大多數情況下不是語素和詞,而是以文本句(textual sentence)為單位的「話語小段」(mini-discourse units, MDU)。這是應用語料庫來進行翻譯研究的特質。至於要建甚麼樣的庫,是跟研究目的相關的。

比如,筆譯和傳譯不同,前者基本不受時間的限制,我們不知道譯者花了多少時間把譯本生產出來,而後者(尤其是同聲傳譯)非守時而不可。因此,文本庫必須是「一對多」,即一個原文對應兩個或以上的譯文,如此,方能找到文本中認知特徵的共性,即不管譯者是誰,都會表現出來的那些特徵。而且,因為是「一對多」,如果有共性,那就是跟時間因素無關的共同特徵。與之相對,傳譯庫則不必是「一對多」,因為時間因素的限制,任何傳譯員,在即時傳譯的條件下,傳譯過程應該大致相同,除去個人因素,留下來的,足以反映過程的共性。當然,即使是拿語料庫作工具,取語料庫自動生成的語料模式,如何去定量定性分析,涉及一系列的理論和方法程式的問題,這裡就不一一贅述了。今天,大腦科學進展神速,翻譯認知過程的研究隨之興起,正是適逢其時。 

mini-discourse units (MDU) composed of textual sentences. And this is a distinctive characteristic of using corpus in Translation Studies. As for what kind of corpus should be constructed, that depends on the purpose of the research.

For instance, translation and interpreting are different in that the former is not subject to any time constraints (we don't know how much time the translator spent producing the translation), while the latter (especially simultaneous interpreting) must be done under time pressure. What this means in the creation of corpuses is that if we are creating a corpus for the purpose of studying translation, then we must find a minimum of two translated texts for each source text, not only because that is the only way to identify cognitive patterns—the common characteristics exhibited by different translators, but also because this can rule out the role of the length of time spent producing the translated text in contributing to such commonality. A corpus for studying interpreting, on the other hand, does not have to meet this 'one-to-many' requirement. The same time constraints render the process basically the same regardless of who the interpreter is. In other words, after identifying the factors that pertain to individual interpreters, a one-to-one study is usually sufficient to reveal the commonality of the process. Of course, some other important questions, such as how we might conduct quantitative and qualitative analysis of the patterns automatically generated by the available corpuses, are too complex and involve too many theoretical and methodological issues to be covered within the scope of this article. Suffice it to say that with neuroscience advancing at an astounding pace today, there has never been a better time to study the cognitive process of translation and interpreting. 

「學院專欄」內容僅代表作者個人意見(文內小標題為編輯所加)

*The views expressed in the Faculty Column are solely those of the authors, and do not necessarily reflect the views of the umagazine or UIM.
(The subheadings were added by the editorial board of umagazine)*

建立澳大與本地及國際社會之間的橋樑—— 公眾心理健康研究的角色

Building Bridges from UM to the Local and Global Community: The Role of Public Mental Health Research

撰文 English Text | Brian Hall 中文翻譯 Chinese Translation | 陳靜 Ruby Chen

澳門大學是一所充滿活力的大學，正在朝著優秀研究型大學的方向迅速發展。澳大早前進入全球300強大學排行榜，最近又進入全球100強建校未滿50年大學排行榜，名列第39位。但這些發展與澳門本地社會有甚麼關係？澳大如何解決本地社會亟待解決的問題和挑戰？如何在公眾健康研究方面滿足本地居民的需求，同時又能應對全球挑戰，成為有全球影響力的大學？本文重點討論心理健康與這些問題之間的關係，以及當前正在進行中的一些研究項目的具體目標。

The University of Macau (UM) is dynamic and rapidly developing into an outstanding research institution. We have now seen our university enter the ranks of the top 300 world universities and we are now ranked 39th among the top 100 new universities under the age of 50 in the world. But how does this expansion and development link to the local Macao community? How can the university address local priorities and challenges? How can public health research fulfill the promise of a university relevant and focused on addressing the needs of local people while also addressing global challenges and leaving a global footprint? Below I articulate the relevance of mental health to this development agenda and outline some specific targets for research already underway.





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The author is an assistant professor in the Department of Psychology, Faculty of Social Sciences. He is particularly interested in understanding the social determinants of population health, the consequences of adversity and traumatic stress, and developing and evaluating community intervention programmes for marginalised populations.

什麼是公眾心理健康？

一場旨在創立跨學科研究的運動在澳門及世界其他地區聲勢漸起。這是個令人鼓舞的好現象，因為大部分值得研究的問題都需要用到不同領域的專業知識和技能。這種研究模式使得研究學者能夠共同發聲，提供不同的視角。這是非常寶貴的，因為在科學發展的過程中，不同學科和視角的融合能夠催生新領域。跨學科的研究方式通過綜合不同學科的優勢，為看似無法解決的問題尋找有效的解決方法。而這就涉及到團隊合作。我有幸參與研究如何提升亞洲地區健康水平這個極具挑戰性的課題，唯有透過團隊合作才可以達成目標。全球心理健康是一個跨學科領域，涉及人類學、社會學、心理學、公眾健康、流行病學、傳播以及公共政策各領域的知識和研究方法，目的是為全球健康問題的研究和治療提供參考依據。



What Is Public Mental Health?

A movement to establish interdisciplinary research is growing in Macao, as is true around the world. This is an encouraging phenomenon given that most problems worth addressing require utilising the skills of many people with different knowledge, expertise and backgrounds. This research format allows researchers to speak together and offer different perspectives. While valuable, true integration of multiple disciplines and perspectives can incubate a new field of scientific inquiry and development. Transdisciplinary approaches build upon the strengths of many, and leverage these strengths to develop meaningful solutions to seemingly intractable problems. This leads to team science. I have the privilege to be working towards the goal of promoting health and wellbeing in Asia, which is a monumental challenge and one only accomplished through collaborative team approaches. Global mental health is a transdisciplinary field as it seeks to combine knowledge and methods utilised in anthropology, sociology, psychiatry, public health, epidemiology, communication, and public policy, to build an evidence base for the study and treatment of poor health around the world.

What Is Health?

The World Health Organization (WHO) defines health as ‘... a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.’ Embedded within that definition is physical health, along with mental and social wellness. These definitions are positively framed and formulate a picture of health and wellness from a holistic perspective – that a person can live a life imbued with meaningful connectedness to society. Although this definition separates health and mental health, from the perspective of most people in the world these are interconnected and interrelated phenomenon. My own approach is to conceptualise health broadly to include physical, mental, sexual, and behavioural dimensions. A common mantra for the field, stated first by Dr Brock Chisholm, the first director-general of the WHO, and later popularised through publication in the British medical journal *The Lancet*, “There is no health without mental health.”

什麼是健康？

世界衛生組織（世衛組織）對「健康」的定義是「不單指沒有疾患，而是指身體、心理以及社交關係三個層面完全健康的狀態。」這個定義很清晰的界定了健康的內涵包括身體、心理以及社交關係三個方面，對健康給出了一個整體的正面描述，即一個健康的人要與社會上其他人建立有意義的關係。雖然這個定義將健康與心理健康視為相互獨立的概念，但是對於大多數人來說，這兩者是緊密關聯，不可分割的。我個人對健康內涵的界定比較寬泛，我認為包括身體、心理、性以及行為這幾個方面。行內信奉的一句真言是「沒有心理健康就談不上真正的健康。」這句名言最早是由世衛組織首任總幹事布羅克·奇澤姆（Brock Chisholm）提出的，後來被刊登在英國著名的醫學期刊《柳葉刀》而廣為流傳。

全球疾病負擔

心理疾病對患者身心造成很大的影響，是應該嚴肅對待的疾病，在很多情況下都需要專業人士介入治療。心理健康問題是一個全球性的問題，也是造成全球疾病負擔的一個主要因素。世衛組織提出了一個衡量健康的重要指標，叫做「疾病調整生命年」（DALY）。一個DALY是指由於健康狀況而損失的一個健康的生命年。根據「全球疾病負擔」報告，心理疾病、神經疾病和藥物濫用佔全球DALY的28%，超過心血管疾病和癌症。

最常見的心理疾病是焦慮症和抑鬱症。雖然心理健康問題未必會直接導致生命年的損失，但是確實會造成整體生活質素的下降，有時甚至會引起自殺，而自殺是青少年第三大死因。心理健康問題是亟待解決的全球性問題，但是亞洲大部分地區對心理健康問題所造成的損失依然缺乏認識。因此我們必須給予這些問題應有的重視，制訂相應的策略，改善人們的健康狀況。世界上很多地區，由於醫患比例的嚴重失調，對心理疾病進行專業介入治療的情況十分之不理想。要改變這種狀況，大學責無旁貸。



The Global Burden of Disease

Mental disorders are serious and debilitating conditions, which in many cases require intervention. Poor mental health is a worldwide public health issue and mental health has been recognised as being a major contributor to the global disease burden. The WHO identifies an important health metric called the Disability Adjusted Life Year (or DALY). One DALY is equivalent to one healthy year of life lost due to a health condition. According to the Global Burden of Disease report, mental, neurological and substance-use disorders account for 28 per cent of DALYs around the world, surpassing cardiovascular disease and cancer.

The most common mental disorders are anxiety and depression. Although it may be argued that poor mental health does not directly lead to loss of life, it contributes to overall lower quality of life, and may in some cases lead to suicide, which is the third leading cause of death among adolescents. Poor mental health is an area of urgent need around the world, but the burden of mental health and poor health is still generally not well known across most of Asia. It is an important priority to characterise these issues and develop strategies to improve health. Intervention delivery in many parts of the world is lacking due to the identified treatment gap. Many more people desperately need intervention than there are available trained mental healthcare providers. We need to do more.

Developing a Research Agenda with Global Impact and Local Significance

The Global and Community Mental Health Research Group (www.um-gmh.com), housed in the Department of Psychology at UM, is a group comprised of students and faculty from diverse backgrounds including public health, medicine, social work, anthropology, psychology and epidemiology. The group is dedicated to addressing the pressing mental health and public health needs of East and Southeast Asia. We are

制訂適用本地且具國際影響力的研究方案

澳大心理學系的全球及社區心理健康研究小組（www.umgmh.com）的成員擁有多元背景，包括公眾健康、醫學、社工、人類學、心理學和流行病學。小組致力於研究如何滿足東亞以及東南亞地區在心理健康和公眾健康方面的需求。小組目前有幾個大型研究項目正在進行中。與此同時，小組已著手開始制訂若干個新的計劃，希望可以加強澳大在公眾健康領域與區內的聯繫。

早前，小組在中國內地做了一項具代表性的大樣本流行病學研究，研究人群為765個成年人。研究目的是瞭解本地居民與外地流動人口所面臨的健康問題。我們收集的資料顯示，抑鬱症、酒精濫用、性健康、傳染病以及睡眠問題非常普遍，應作為未來專業介入的重點對象。資料還顯示，存在心理健康問題的人群中，只有極少數的人曾經尋求治療或者被其醫生發現存在這些問題，表明心理健康領域存在很大的治療缺口。

我們在香港做了另一項研究，研究樣本是1,000多名成年人，研究目的是分析雨傘運動後常見心理疾病（即焦慮症和抑鬱症）在香港的盛行率以及決定因素。資料顯示，雨傘運動後香港社會焦慮症和抑鬱症的盛行率超過2009年禽流感時期，表明社會動盪是造成香港居民心理健康問題的一大主因。對這一關係有記錄的研究當中，我們是最早的幾個之一。

在澳門，我們針對幾個重要的群體收集資料，目前正在分析來自東南亞和中國內地的勞工面臨哪些健康威脅。外來勞工提供了維繫本地居民生活方式所必需的勞動力。而他們的付出直接或間接的促進了澳門的經濟增長。因此，他們的健康與我們每個人都是息息相關的。我們對這些勞工進行實地考察，瞭解他們在澳門的生活和工作情況以及澳門居民對他們的看法。醫療保健和住房是外來勞工面臨的主要問題，而相伴而生的就是種種心理健康問題。我們計劃未來開展更多相關研究，對這些問題的普遍性進行量化，建立相應的介入機制，從而改善外來勞工的健康狀況。



engaged in several large research projects, and are developing several initiatives, which will link UM to the region in the public health arena.

In mainland China, we engaged in a large population representative epidemiological study of 765 adults to characterise the health problems facing both local residents and internal Chinese migrants. Our data showed that depression, alcohol misuse, sexual health and infectious disease, and sleep problems are prevalent and should be targets for potential treatment intervention. The data also showed that only a very small percentage of people identified with mental health problems sought care or were identified as having these conditions by their healthcare provider, suggesting a meaningful treatment gap.


In Hong Kong, we engaged in research focused on understanding the prevalence and determinants of common mental disorders (ie, anxiety and depression) following the Umbrella Movement among a population representative sample of over 1000 adults. Our data showed that the prevalence of depression and anxiety exceeded levels reported during the SARS flu epidemic in 2009, indicating that social unrest in Hong Kong is a major contributor to poor health. This is among the first studies to document this association.

In Macao, we collected data from several important communities. We are examining the various threats to the health of our local migrant communities from Southeast Asia and mainland China. Migrants provide needed labour to sustain the lifestyles of local people and their efforts directly or indirectly contribute to the economic expansion of Macao. Therefore, their health and welfare is of concern to all us. Our team is engaged in fieldwork with these communities to understand

我們對澳門長者做了一個大樣本問卷調查，調查結果顯示社區的信任以及良好的社會關係可以顯著減少這個群體的抑鬱症症狀。這些結果對政策制訂或有重要的參考價值，也可為建立專業介入機制奠定基礎。我們的資料顯示，幫助長者建立或加強社交網絡或支持團體的計劃或可有效減少抑鬱症的發生。我們研究的結果顯示抑鬱症的盛行率相當高，不過仍需後續研究來證實我們的結論。

我們也對澳門成年人做了幾個大樣本問卷調查。其中一項面向1,000名本地居民所做的調查結果顯示，抑鬱症在澳門的盛行率很高，令人擔憂。我們希望相關部門在規劃和制訂政策時可以將這些結果作為參考依據。澳門現有的心理保健體系可能尚未有能力完全解決這些問題，但是澳大可以通過教育、鼓勵公眾參與以及培訓本地專業人士等方式來改善這種現狀。我們目前正在規劃一項大樣本縱貫性研究，預計將於明年內啟動。我們希望可以通過這項研究分析澳門人健康問題的決定因素。

結語


珠江三角洲是一個充滿活力、日新月異的地區。開展與本地社會息息相關的研究可以加強大學和本地社會之間的聯繫。大學的持續發展意味著我們的全球形象將受到越來越多的關注。如何可以不斷加強澳大發展與本地社會之間的關係？開展有助改善澳門人健康的研究是其中一個重要環節。 

their experiences living and working in Macao and to understand Macao residents' perspectives on labour migrants. Key issues involving access to needed healthcare and housing have emerged along with poor mental health. Additional studies are planned to quantify the prevalence of these conditions and develop interventions to improve their health.

We collected survey data on a large sample of the Macao elderly; our data suggests that community-level trust and social relationships significantly contribute to less depression symptoms in this group. These results may have important policy-level implications and pathways to intervention development. According to our data, programmes that expand or link elders' to social networks and supports might be a useful strategy to reduce depression in this community. The prevalence of depression was actually meaningfully high, but follow-up studies are needed to validate our results.

Several large-population level surveys have also been conducted on levels of depression among Macao adults. The results from one study of over 1,000 local residents indicated that the prevalence of depression in Macao is high and of concern. We hope these results, once made available, will help to encourage policy-level planning towards addressing these identified issues. The mental healthcare system in Macao may not be fully able to redress these concerns, but UM can help to improve this condition through education, community engagement, and training local clinicians. Our group is now planning a large longitudinal epidemiological study of the determinants of health issues in Macao to begin within the next year.

Conclusion

The Pearl River Delta is a dynamic and changing landscape. Research that is relevant to local society provides important linkages between the university and local communities. As our university continues to grow, our global presence will be felt; conducting research that may assist in improving the health of local Macao people and residents is an important step towards our continued relevance in the local society. 

「學院專欄」內容僅代表作者個人意見

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umagazine is printed on environmentally friendly paper

ISSN 2077-2491



9 772077 249002