聯合主辦 Jointly organized by



Dr. Stanley Ho Medical Development Foundation

The Chinese University of Hong Kong

何 鴻 燊 博 士 醫 療 拓 展 基 金 會 醫 學 研 討 會

Dr Stanley Ho Medical Development Foundation Symposium 2017

二零一七年一月十四日 下午一時至六時半 14 January 2017, 1:00pm - 6:30pm 二零一七年一月十五日 上午九時至下午二時 15 January 2017, 9:00am - 2:00pm

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	14 Jan 2017 (Saturday) • 二零一七年一月十四日 (星期六)
1:00pm	入席登記 Registration
1:30pm	開幕致詞 Opening address
	Chairpersons: 馬學章醫生 Dr Ma Hok-Cheung 郭昌宇醫生 Dr Kuok Cheong-U
1:45pm	黃麗虹教授 Prof Grace Wong Lai Hung Recent advances in antiviral therapy for viral hepatitis
2:30pm	李沛威教授 Prof Alex Lee Pui Wai Recent Advances in Cardiac Imaging
3:15-4:00pm	休息時間 Tea Break
	Chairpersons: 熊良儉醫生 Dr Hung Leung Kim 林偉基教授 Prof Christopher Lam Wai Kei
4:00pm	譚智勇教授 Prof Clement Tham Chee Yung Recent Advances in Ophthalmology
4:45pm	黃健鴻醫生 Dr Simon Wong Kin Hung Update on Metabolic & Bariatric Surgery
5:30pm	吳健華醫生 Dr Bobby Ng Kin Wah Recent Advances in Paediatric Orthopaedics Surgery
6:15pm	Welcome Dinner (invited guests)
	15 Jan 2017 (Sunday) • 二零一七年一月十五日 (星期日)
9:15am	Souvenir presentations
	Chairpersons: 謝孟雄教授 Prof Shieh Mung-Shiung 鄭彥銘醫生 Dr Gregory Cheng
9:30am	陳肇隆教授 Prof Chen Chao Long Saving lives, spreading hope, Taiwan and beyond
10:15am	王彥暉教授 Prof Wang Yan Hui The "Seed and Soil" Theory in the Prevention and Treatment of Cancer
11:00-11:30am	休息時間 Tea Break
	Chairpersons: 許樹昌教授 Prof David Hui Shu-Cheong 胡錦生教授 Prof Woo Kam Sang
11:30pm	王靜嫻醫生 Dr Priscilla Wong Ching Han Update on Gout
12:15pm	戴樂群醫生 Dr David Dai Lok Kwan A Unified Concept on Dementia and Cognitive Impairment Towards Management

- 1:00pm 曾詠恆教授 Prof Janice Tsang Wing Hang Making Cancer History
- 1:45pm 閉幕詞 Closing address

MESSAGE FROM THE CHAIRMAN



2016 has been another successful year for our Foundation. We reached out to more people and have done more for the local community. Here are the highlights:

1) Annual Medical Symposium

2016 marked the 12th round of the Foundation's Annual Medical Symposium which has become the most important platform for medical practitioners in Macau to learn from overseas speakers on the latest technology and discoveries in medical and health research. We also recorded the highest attendance ever this year, and the feedback was overwhelmingly positive.

2) International Brain Bee Competition

The Foundation took up the competition in Macau last year as sole sponsor in order to encourage more secondary school students to join in and inspire them to pursue careers in neuroscience and other related medical fields. Several events were organized, include sponsoring the top student to represent Macau to compete and exchange in Copenhagen, Denmark, visiting the Brain and Mind Institute (BMI) at CUHK and a talk on Autism in Macau given by a BMI professor.

3) The Fourth Health Exhibition in Macau

We continued to support the Medical Society of the CUHK to organize health exhibition at Pui Ching Middle School from Oct 29-30, 2016. The title of the health exhibition was 'Your Digestion, Our Attention', focusing on the topics of gastroenterology. Talks, free health checks and board presentations on digestive diseases and colorectal cancer prevention were provided to the Macau public in this two-day event.

4) Round table meeting on Modernized Chinese Medicine

The Foundation has sponsored an international round table meeting on Modernized Chinese Medicine at the University of Macau. Professors and experts from US, Switzerland, Australia, Hong Kong and Macau joined the discussion, which aimed to foster international collaboration among universities and to promote the development and research of Chinese Medicine in Macau.

5) Tri-party Agreement with MADA and Kiang Wu Nursing College

The Foundation has signed a tri-party agreement with the Macau Alzheimer's Disease Association (MADA) and Kiang Wu Nursing College, which pledged to support the enhancement and operation of the Memory Clinic founded by Kiang Wu Nursing College in 2013. The clinic promotes early detection of dementia patients by providing cognitive assessment for senior citizens and dementia helpline service in Macau.

6) Web-based Digital Platform

In order to proceed further towards our objectives to elevate the healthcare standard of Macau and the Pearl River Delta, we have been working with global technological experts including Microsoft and IBM to build up a web-based digital platform which will link up medical practitioners and the general public in Macau with worldwide access points for knowledge and resources on medical related area.

7) Collaborative eLearning Project between CUHK and MIT

Further sponsorship is made to the Stanley Ho Big Data Decision Analytics Research Centre to support a 3-year collaborative eLearning Project between the Chinese University of Hong Kong and the Massachusetts Institute of Technology (MIT). The research project aims to enable CUHK to leverage the rich experiences of MIT in order to develop CUHK's own strategy for migrating teaching and learning from the traditional classroom towards a blended learning model.

8) Tackling Respiratory Virus Infection in Macau/Hong Kong

Macau has a high risk to respiratory virus infection like other major tourist cities in the world. We have made a donation to the Respiratory Virus Research Foundation to support Professor K.Y. Yuen and his team, as well as other research parties at the University of Hong Kong, Hong Kong Polytechnic University and the Macau University of Science and Technology in developing the appropriate rapid diagnostics and treatment, vaccine and vaccine adjuvants for the Macau and Hong Kong population.

9) A meeting place and platform for professional exchange

The Foundation's office in Macau continues to serve as a venue for conferences, meetings and trainings organized by local medical and professional organizations which further enhances the Foundation's relationship and goodwill with the local community.

In addition to the events and activities above, the other centers and projects sponsored by the Foundation have also achieved significant results during the year. Their reports at the end of this brochure will give you a glimpse of what they have done for Macau and Hong Kong. We would like to take this opportunity to thank you all in making these events possible.

On behalf of our Foundation, I wish you and your family a happy and peaceful year in 2017.

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Dr. Stanley Ho Chairman Dr. Stanley Ho Medical Development Foundation

主席的話

2016 年基金會俯身公益, 碩果累累, 開展了更多服務澳門廣大民眾的嶄新活動, 以及資助多項對社會極具裨益的醫療研究項目。

1) 醫學研討會

2016年標誌著醫學研討會已成功舉辦第十二屆,並成為澳門醫護界同仁與海外學者學習交流最新醫療技術和研究成果的重要平台。這屆研討會獲公眾熱烈響應,參加人數更創歷年新高,盛況空前。

2) 國際腦神經科學大賽

去年基金會首次主辦、資助腦神經科學大賽澳門區選拔賽及國際大賽,大賽旨在激發更多澳門中學生對腦神經科學及 相關領域的學習興趣。系列活動包括以下項目:腦神經科學大賽澳門區選拔賽、挑選及資助澳門區代表學生參加於丹 麥哥本哈根舉行的國際大賽及交流活動、舉辦選拔賽頒獎典禮和自閉症專題講座,以及安排澳門中學生參觀香港中文 大學大腦與認知研究所。

3) 第四屆澳門健康展覽

由基金會資助、與香港中文大學聯合主辦的第四屆澳門健康展覽於 2016 年 10 月 29 日及 30 日假澳門培正中學舉辦圓 滿成功。本次展覽以「消憂化難」為主題,市民透過教育展板、專題講座及免費身體檢查諮詢,認識有關消化系統疾 病及預防大腸癌等資訊。

4) 現代化中醫藥圓桌會議

由基金會資助香港中文大學香港中西醫結合醫學研究所主辦的「現代化中醫藥圓桌會議」首次於澳門大學舉行。邀 請來自美國、瑞士、澳洲、香港以及澳門大學的中醫藥領域的專家和學者進行學術討論,為進一步拓展澳門中醫藥研 究和發展,並加強本地與國際區域合作帶來新的契機。

5) 與澳門失智症協會及澳門鏡湖護理學院之三方協議

何鴻燊博士醫療拓展基金會、澳門失智症協會及澳門鏡湖護理學院在十月份簽署三方協議,同意共同推進由澳門鏡湖 護理學院所建立之記憶中心的建設及運作。該記憶中心成立於 2013 年,旨在推廣早期檢測,為本澳居民免費提供長 者認知能力評估及失智症電話熱線服務,使失智症患者得到適時照顧。

6) 全方位醫療資訊平台

為朝著基金會「提升澳門和珠江三角洲醫療水平」這個使命向前邁進,基金會正與微軟及 IBM 等全球最頂尖的科技 專家商討建構一個全方位的資訊平台,讓醫護人員以至市民大眾能分享及取得來自世界各地的最新、最有用及最可靠 之醫療資訊。

7) 電子學習研究項目

自2016年12月,基金會資助香港中文大學何鴻燊海量數據決策分析研討中心與美國麻省理工學院進行為期3年的「電子學習研究項目」。憑藉麻省理工學院豐富的實驗教學經驗,探討電子學習與傳統學習之間的教育模式和成效差異, 從而協助香港中文大學開發和制定一套合理和可行的混合式學習模型。這種新型教育模式結合傳統和電子化學習的優勢,是現代教育發展的重要趨勢。

8) 防治呼吸道病毒的港澳合作研究項目

澳門身為國際旅遊城市,同樣是傳播呼吸道病毒的高危地。有見及此,基金會資助香港呼吸道病毒研究基金,開展有關防治呼吸道病毒的研究項目。該項目由袁國勇教授帶領,並由香港大學、香港理工大學及澳門科技大學所組成的研究團隊共同參與,研究和開發適用於各種呼吸道病毒和流感的預防疫苗及快速診治方法,研究成果將造福港澳兩地民眾。

9) 醫學交流及專業培訓的平台

基金會的澳門區辦事處擁有設備完善的多功能會議廳及資訊中心,為澳門醫療及教育機構免費提供醫學講座、學術交流及專業培訓的場地,為從事醫療、衛生及教育領域的業界人士建立資訊交流的平台,深化基金會與本地醫療機構的合作和友好關係。

除此以外,基金會歷年資助的研究中心和項目亦取得重大進展,有關的具體內容請參閱本場刊的附錄。

我們藉此感謝所有給予幫助的同仁們,您們的無私幫助,基金會才得以逐步實現提昇澳門健康與教育水平的宗旨。期 望今後繼續得到您們的支持與協助,讓基金會可以做更多事情來回饋澳門、回贈社會。謹此衷心祝願您及您的家人 2017 年幸福安康,新年進步!

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何鴻燊博士 主席 何鴻燊博士醫療拓展基金會

歡迎辭 WELCOME MESSAGE



Welcome to the thirteenth Dr. Stanley Ho Medical Development Foundation Symposium, organized by the Foundation and The Chinese University of Hong Kong. On behalf of the Faculty of Medicine of The Chinese University of Hong Kong, I would like to extend our warmest welcome to all speakers and participants of the symposium.

The Dr. Stanley Ho Medical Development Foundation was established in January 2005. Its objective is to provide a platform for medical practitioners in Macau to acquire advanced professional knowledge. To achieve this objective, the Foundation has in the past years organized a series of activities including

healthcare courses, collaborative research projects, the Outstanding Achievement Awards scheme for healthcare workers, establishment of Healthland for health exhibition, and the foundation of Macau Alzheimer's Disease Association. The annual medical symposium is the highlight of this series. All these activities have attracted tremendous interest and support from medical practitioners and other healthcare workers in Macau, Hong Kong and Mainland. The enthusiastic participation of the young healthcare professionals has been particularly overwhelming.

As in past years, the programme of today's Symposium is rich and covers a wide variety of medical advances: including viral hepatitis, cardiac imaging, ophthalmology, bariatric surgery, paediatric orthopaedics surgery, liver transplant, gout, cancers and cognitive impairment. We are very fortunate to have many distinguished speakers to share their precious experience with us. Their support of the Symposium is most appreciated.

We are very grateful to the Dr. Stanley Ho Medical Development Foundation for its staunch support of life-long continuing medical education. The Chinese University of Hong Kong is very fortunate and proud to be associated with the Foundation in promoting this great initiative. I would also like to take this opportunity to express my appreciation and gratitude to members of the Organizing Committee for their time and effort in putting together today's programme. I wish you all a very enjoyable and fruitful symposium.

Professor Justin CY Wu

Associate Dean (Development) Faculty of Medicine The Chinese University of Hong Kong



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2017 何 鴻 桑 博 士 醫 療 拓 展 基 金 會 醫 學 研 討 會 7 Dr. Stanley Ho Medical Development Foundation Symposium

傅銘欣先生 Mr Fu Ming Yan



病毒性肝炎治療最新進展 Recent advances in antiviral therapy for viral hepatitis

黃麗虹教授 Prof Grace Wong Lai Hung

香港中文大學內科及藥物治療學系腸胃及肝臟科教授 Professor, Division of Gastroenterology & Hepatology Department of Medicine & Therapeutics, The Chinese University of Hong Kong

Long-term use of oral nucleos(t)ide analogues (NA) is the first-line treatment for chronic hepatitis B (CHB) as it is well-proven to reduce the risk of hepatic events, hepatocellular carcinoma (HCC) and mortality.^{1,2} Despite previous concern on the safety of NUC, recent real-life cohort studies showed long-term NA therapy does not increase the risk of renal and bone toxicity,³ as well as risk of all cancers.⁴ Now we are expecting a new nucleotide analogue, tenofovir alafenamide (TAF), which provides more potent viral suppression as well as better safety profile than tenofovir disoproxil fumarate (TDF).^{5,6}

Oral direct-acting antiviral (DAA) regimens are the current standard of care for chronic hepatitis C (CHC) patients, with a 97% success rate in achieving sustained virologic response (SVR).⁷ Factors associated with treatment failure include male gender, thrombocytopenia, cirrhosis and prescriptions non-compliant with the Food and Drug Administration (FDA) guidelines.⁷ Treatment-experienced HCV-infected patients are those who have a partial/null response to, or have relapsed after, standard treatments such as peginterferon plus ribavirin (PR) or DAAs. DAA regimens have been shown to achieve high SVR rates at 12 weeks post-treatment (SVR12) in PR-experienced patients.⁸

Reference

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- 8. Andreone P, et al. Gastroenterology 2014;147:359–365.



心臟成像技術的最新發展 Recent Advances in Cardiac Imaging

李沛威教授 Prof Alex Lee Pui Wai

香港中文大學內科及藥物治療學系心臟科助理教授 Assistant Professor, Division of Cardiology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong

We are seeing an overwhelming epidemic of cardiovascular diseases. The increasing incidence of cardiovascular diseases demands newer, more effective (and cost-effective) ways to diagnose and treat these diseases. Echocardiography and other modalities of cardiac imaging have played a key role in the clinical management of cardiovascular disease. With the advent of cardiac imaging technology, we are now able to visualize the beating heart and moving valves in real-time and 3-dimension (3D), to be able to quantify myocardial fibers shortening, to assess macro- and micro-vascular function and anatomy non-invasively, and even to deliver drugs and genes to specific locations of the body using micro-bubble ultrasound contrast agents. Artificial intelligence, 3D printing, interventional echocardiography, cardiac CT and MRI are also rapidly developing fields in cardiac imaging.



眼科的最新發展 Recent Advances in Ophthalmology

譚智勇教授 Prof Clement Tham Chee Yung

香港中文大學何善衡眼科及視覺科學講座教授;眼科及視覺科學學系系主任 S.H. Ho Professor of Ophthalmology & Visual Sciences, Chairman, Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong

The speaker will discuss various surgical, medical and investigational advances in ophthalmology in the past 5 years, including femtosecond laser-assisted cataract surgery, refractive surgery (LASIK and SMILE), and corneal lamellar surgeries (DSAEK, DL), selective laser trabeculoplasty (SLT) for glaucoma patients, swept source optical coherence tomography and angiography for anterior, posterior segment and optic nerve head imaging, computer-assisted and endoscopic navigation in orbital surgery, small-gauge self-sealing vitrectomy, topical and behavioural treatments to slow down progression of childhood myopia, intra-arterial chemotherapy for ocular and orbital tumors, and intravitreal injection of anti-vascular endothelial growth factor (anti-VEGF) for different macular and retinal vascular disorders.



代謝與減重手術的最新發展 Update on Metabolic & Bariatric Surgery 黃健鴻醫生 Dr Simon Wong Kin Hung

香港中文大學上消化道及代謝外科學系顧問及名譽臨床副教授 Consultant & Hon. Clinical Associate Professor, Division of Upper Gastrointestinal & Metabolic surgery, Department of Surgery, The Chinese University of Hong Kong

Obesity and type 2 diabetes mellitus (T2DM) are an ongoing health-care problem worldwide. Both diseases are closed related and very difficult to be controlled by current medical treatment, including diet, drug therapy and behavioral modification. In Asia, T2DM is a more important epidemic health problems than obesity. Gastrointestinal surgery, such as bariatric surgery, is the most powerful ammunition for obesity treatment. There are also strong evidences that bariatric surgeries (e.g. laparoscopic gastric banding, sleeve gastrectomy, gastric bypass) can improve and even attain DM remission in some T2DM morbidly obese patients.

Around the world, more than 500,000 surgeries are performed for morbid obesity and diabetes each year and more than 50,000 of them are performed in Asia. Although Sleeve gastrectomy and Gastric bypass are being the most common bariatric procedures, new technique has been evolving in the last few years. Moreover, T2DM resolution after bariatric surgery is an existing topic recently especially in Asia where sustained weight reduction plays the key mechanism on improve insulin sensitivity which improves the glucose control. However, change of physiology of gastrointestinal tract also plays an important role in postprandial glycemic control. Recent studies suggested that the mechanism of such alteration of glucose homeostasis included change of gut hormone release, such as ghrelin, GLP-1, GIP and PYY. Moreover, recent researches had also showed that modulation of gastrointestinal neuronal electric signal (e.g. Gastric Contraction Modulation, GCM) will also affect satiety and diabetes control. Due to the overwhelming evidences on superiority of metabolic surgery than medical therapy glycemic control among obese T2DM patients, new international guideline had been issue on including surgery as part of the treatment of T2DM.

However, majority of DM patients still cannot accept surgery due to its invasiveness and morbidities. There is a potential gap of effective therapy that we can provide as this moment. However, with the development of technology & advance endoscopic technique, new therapeutic procedures will soon be evolved as a less invasive modality in management obesity & diabetes. We believe that by performing an effective and safe surgery, metabolic & bariatric surgery will gain more acceptances by patients, physicians and health administrators in the future.



小兒骨科的最新發展 Recent Advances in Paediatric Orthopaedics Surgery

吳健華醫生 Dr Bobby Ng Kin Wah

香港中文大學矯形外科及創傷學系顧問及名譽臨床教授 Consultant & Hon. Clinical Professor, Department of Orthopaedics & Traumatology The Chinese University of Hong Kong

Professor Bobby KW Ng, Paediatric Orthopaedic Chief, Consultant Surgeon, Prince of Wales Hospital, Chinese University of Hong Kong.

Paediatric orthopaedics covers a wide spectrum of disorders. The core practice includes Hip disorders from birth to skeletal maturity, Trauma, Limb and Spinal deformities from all causes, neuromuscular disorders. There are new developments in all these fields from diagnostic imaging to surgical treatments.

The unique features in children is growth which has great effect in the decision making in the management of all these disorders.

In the treatment of Paediatric hip dysplasia and dislocations, the general principle is still to achieve early concentric reduction by selective screening, early treatment with Pavlik Harness or other splints followed by operative treatment for the difficult cases. Restoring acetabular dysplasia by the use of Periacetabular Osteotomy (PAO) is probably one of the most important advances for the treatment of many persistent dysplasia and late presenting cases. In slip capital femoral epiphysis and Perthes disease, use of A-Frame, Medial capsular release and operative treatments with Hip distraction, Femoral osteotomies and surgical dislocation of the hip are the most important advances in the treatment methods.

In Spinal deformity treatments, modern technology has advanced in all fields and there are many new developments that allow patients to be treated better with more precise instrumentation for surgical procedures such as navigation guided instrumentation in scoliosis surgery, 3D printing pre-operative planning and simulation Spinal osteotomies for correction of complex spinal deformities, use of Transamine and continuous autologous transfusion system to reduce blood loss, use of Magnetically controlled Growing rod for Early Onset Scoliosis (EOS). The use of low dose X-rays imaging system for routine scoliosis and limb deformity assessments.

In Limb deformity correction, the use of 3D printing and patient specific cutting guides, use of computer controlled external fixation system such as the Taylor Spatial Frame are the recent advances.

The lecture will include all of the above mentioned advances with illustrated cases to outline the cases presentation, management principle, clinical assessment, investigations, operative management, rehabilitation and outcome.

The attendance will be introduced to these new advances and be aware of the technology, how to investigate and manage the patient initially with imaging and to refer the complex cases to appropriate specialist centres for definitive managements.



深耕台灣、立足國際、醫援海外 Saving lives, spreading hope, Taiwan and beyond 陳肇隆教授 Prof Chen Chao Long

高雄長庚紀念醫院名譽院長及中國工程院院士 Superintendent Emeritus, Kaohsiung Chang Gung Memorial Hospital, Taiwan; Academician, Chinese Academy of Engineering

Liver transplantation is one of the most difficult endeavors in the field of medicine. As a premier liver transplant center, Kaohsiung Chang Gung Memorial Hospital (KCGMH) has many distinctions to its credit. This lecture elaborates on the development of this transplant center, on the innovations and techniques which have contributed to its excellence, and finally on the efforts to benefit humanity beyond the shores of Taiwan.

Taiwan over the years has made remarkable strides in liver transplantation and presently LDLT in Taiwan is among the best in the world when measured in terms of survival outcomes. The high incidence of viral hepatitis in Taiwan has translated to a high burden of cirrhosis, end-stage liver failure and hepatocellular carcinoma (HCC). With more health conscious society and nationwide active periodic screening programs, the disease diagnosis has increased causing an apparent shortage of organs.

Overcoming the initial challenges in transplantation, we performed the first deceased donor liver transplantation (DDLT) in Taiwan in 1984 for Wilson's disease. Since then there is no looking back and we accomplished 1500 liver transplants in 2016 at Kaohsiung Chang Gung Memorial Hospital. It is credited with many other milestones including the first LDLT in Taiwan, and the first split liver transplant in Asia.

The issues of social-cultural barriers and religious beliefs in East Asian countries were responsible for the delay in embracing deceased donor organ donation. The success of the first Asian DDLT helped in changing this perception and Taiwan became the first country in Asia to have legislation on brain death and organ transplantation in the year 1987, 10 years ahead of Japan, 12 years before Korea. This played an important role in the promotion of transplant medicine in Taiwan. Aggressive promotional campaigns actively supported by the government, media houses, newspapers and movies helped to create a favorable public opinion on organ donation. The concept of deceased donor organ donation though not so widely popular the recent trends from Taiwan have shown a marginal increase in deceased organ donation of 9.4 per million population.

The initial journey was full of hurdles and extensive cooperation with other Asian counterparts helped in crossing them. Long sessions of repeated animal experiments, regular exchanges and friendly collaboration during the initial years made us reduce the learning curve with excellent results. The successful liver transplantation outcomes helped in creating an environment of positive mindset and made people to accept liver transplantation as a life saving procedure. Trust gained from patients and positive feedback due to excellent outcomes gave the necessary momentum and helped us achieve a stupendous growth in the last decade.

Our center has also accumulated a wealth of experience, and established standardized protocols for patient management and quality of care. This is endorsed and recognized by the world bodies and our health care providers, including surgeons, radiologist, nursing care specialists find their name in the list of Global experts.

Technical innovations in donor hepatectomy, vascular and biliary reconstruction, vibrant interventional radiology for managing complications and peri-operative management of transplant patients, and the development of associated specialties have enabled achieve ment of excellent results after LDLT. Our center is the most active center, among the 26 liver transplant programs approved by the Taiwan Ministry of Health, and having the highest survival rate, with 91 % at 3 years. Our survival statistics in LDLT compared favorably with the over-all survival rates in the US, Europe, and Japan. These best survival rates are also applicable in pediatric LDLT for biliary atresia and HCC as well.

The aggressive campaigns, active government support, a universal health insurance system, spurt in economic development, excellent network of hospitals, competent and trained health care providers have all helped in improving outcomes of the transplant procedure.

These excellent results improved our credibility in the international transplant community and there was an increase in number of overseas patients seeking liver transplantation in our center.

LDLT has gained worldwide acceptance and we took several pro-active skill transfer initiatives in expediting the techniques of LDLT internationally. We have a long tradition of sharing our skills and experience in order to improve life of humanity. Our international outreach in liver transplantation took us to Japan, Philippines, and leading university hospitals in China. We actively mentor the younger generation of liver transplant specialists, to pass on the baton. We have trained more than 300 international fellows to-date. Our international outreach programs have successfully trained surgeon, physicians and nurses from several Central and South American countries and helped us forge a strong medical tie. As medical diplomacy, we have helped them to establish liver transplant programs in Central and South America.

Our data are placed in the public domain under the auspices of Taiwan National Health insurance towards maintaining transparency and quality standards. Regular sharing of data in international conferences and publication of outcome series in peer review journals ensures in sustaining our standards by creating checks and balances. Taiwan has evolved as a global player with an important contribution to the field of liver transplantation over the last 3 decades.

There is a scope of improvement in further increasing deceased donor organ donation, apart from much needed impetus to research of translational molecules in liver diseases and transplantation.



種子土讓説與癌症的防治 The "Seed and Soil" Theory in the Prevention and Treatment of Cancer

王彥暉教授 Prof Wang Yan Hui

廈門大學醫學院副院長 Associate Dean of Medical College, Xiamen University, Xiamen

1889 年 Paget 提出癌症發生發展的種子土壤説,器官微環境(「土壤」)可影響特定腫瘤細胞(「種子」)的種植、侵襲、存活、生長,主要用於闡明腫瘤轉移早期常呈現的特異臟器 親合性,如結腸癌易轉移到肝臟,肺癌易轉移到骨、腎上腺和腦,前列腺癌易轉移到骨。我 們從中西醫結合的角度出發,提出了腫瘤發生發展的土壤種子學説,來幫助大家理解腫瘤的 發生發展機理以及中西醫在癌症治療中所起的各自作用。在這個理論中,土壤代表身體內環 境,種子代表基因,當身體形成中醫學辨所説的「氣滯痰濕瘀血」體質土壤,再加上致癌基 因攜帶,在某一時刻就長出了毒草(惡性腫瘤)。

西醫學在癌腫的定位定性、種子(基因檢測)診斷方面具有明顯的優勢,但是對土壤的診斷 處於餛飩狀態。中醫學關注癌症的土壤層面,即是否具有適合腫瘤生長的體質內環境,但對 腫瘤結果的診斷缺乏特異性,更基本無法做到精確的定位定性。 西醫學的基因檢測和癌腫檢查與中醫學的土壤辨證相結合,可以有效提高癌症的防治水準。

The seed and soil theory was first discussed by Stephen Paget in 1889 to explain the development of cancer. A microenvironment (soil) can influence the seeding, spread, survival and growth of a particular tumor (seed). The theory mainly illustrates the organotropism of a metastatic cell in the early stage. For example, colon cancer has a tendency to metastasize to the liver; lung cancer often metastasizes to bones, adrenal glands and brain; prostate cancer usually metastasizes to bones. In the perspective of integrative medicine, we proposed the "soil and seed" theory to explain the outset and progress of tumor. In this theory, the mechanism of tumor development and the roles that western medicine and traditional Chinese medicine have played in treating cancer have been illustrated. According to the theory, the soil represents the internal environment; the seed stands for genes. When the internal environment has developed into a constitution of qi stagnation with phlegm, dampness and also blood stasis on the basis of TCM pattern identification, with the presence of oncogene, the malignant tumor will be grown.

Western medicine enjoys an overwhelming advantage on the localization, qualitative diagnosis and seed diagnosis (gene detection). But it fails in the soil diagnosis. With the focus on the soil of cancer, traditional Chinese medicine excels at determining whether the internal environment is favorable for the tumor growth, but it isn't specific to the diagnosis, let alone accurate localization and qualitative diagnosis.

By combining the gene detection and cancer screening of western medicine and the pattern (soil) identification of traditional Chinese medicine, the prevention and treatment of cancer will be greatly enhanced.



痛風治療新發展 Update on Gout

王靜嫻醫生 Dr Priscilla Wong Ching Han

香港中文大學內科及藥物治療學系風濕科名譽臨床助理教授 威爾斯親王醫院內科及藥物治療學系副顧問醫生 Honorary Clinical Assistant Professor, Department of Medicine and Therapeutics, The Chinese University of Hong Kong Associate Consultant, Department of Medicine and Therapeutics, Prince of Wales Hospital

Gout is the most common form of inflammatory arthritis and one in which pathogenesis and risk factors are best understood. However studies show that only a minority of gout patients receive effective lifestyle advice and urate lowering therapy, the majority are being under-treated. Many of the doctors fail to recognize the serious irreversible joint damage and the significant cardiovascular morbidity of the disease. They often just focus on managing acute attacks rather viewing gout as a chronic progressive crystal deposition disease. Now there is updated classification criteria and evidence-based guidelines for the management of gout. There is also significant progress in the development of new drugs. With better insight into the severity and consequences of gout, together with the effective novel therapies, the ultimate aim for both the physicians and the patients is to cure this disease.



失智及認知障礙的統一理論及臨床處理 A Unified Concept on Dementia and Cognitive Impairment Towards Management

戴樂群醫生 Dr David Dai Lok Kwan

香港認知障礙症協會主席 Chairman, Hong Kong Alzheimer's Disease Association

Alzheimer's disease comprises 70% of all cases of dementia of old age, with onset usually in the early 80's. Risks for the disease are found with genetic and environmental factors interacting with one another operating on epigenetic mechanisms. Prevention for the disease follows a life course approach in primary prevention in which the socioeconomic status prevails. Secondary prevention is midlife intervention in risk reduction targeting at cardiovascular health, depression, exercise, sleep, nutrition, and cognitively stimulating leisure activities. Anti-amyloid treatment has produced successful results up to the present moment and many questions remain to answered about the treatment. Tertiary prevention is early detection of clinically significant symptoms followed by prompt diagnosis and treatment. This is of vital importance because evidence point toward early medical treatment and non-drug supportive interventions can optimize symptoms and enhance quality of life in the patient and caregivers. The concept of mild cognitive impairment is fading out to be replaced by cognitive frailty for which much can be done to improve and restore cognitive health. The human brain is neuroplastic to adapt to changing life experiences and environment and positive adaptation result in a higher brain and cognitive reserve, through neurogenesis and synaptogenesis. Compensatory mechanisms operates in the older brain to retard deterioration and evidence can be found in functional imaging.



讓癌症成為歷史 Making Cancer History

曾詠恆教授 Prof Janice Tsang Wing Hang

香港大學李嘉誠醫學院名譽臨床助理教授及內科腫瘤科專科醫生 Specialist in Medical Oncology, Hon. Clinical Assistant Professor Li Ka Shing Faculty of Medicine, The University of Hong Kong

Cancer is an aging disease, though the shared mechanisms underpinning the two processes remain unclear. Genomic instability is a hallmark of both aging and carcinogenesis. Age is known to be one of the strongest risk factors for cancer development. The aging population presents a major epidemiological challenge, and the incidence of cancer increases with age, due to probably both exploitation of large-scale population screening programmes and the improvement of diagnostic capacities worldwide.

Yet over the last 2 decades, thanks to the breakthroughs of various medical advances and technology, both in diagnostics and therapeutics, there has been significant improvement of both clinical outcomes and quality of life of cancer patients with enhancement of disease free survival and overall survival. We have also moved from the era of personalized medicine to precision medicine including the emerging added value of immune-oncology. This lecture will give a bird's eye view of the recent advances in cancer diagnosis and therapeutics and will also discuss the way forward in cancer medicine.

醫學研討會歷年概述及健康教育活動(2005-2016) A Report on Dr Stanley Ho Medical Development Foundation Symposium and Health Education Programmes (2005-2016)

Foundation Symposium

Since the establishment of Dr Stanley Ho Medical Development Foundation Trust in 2005, we have scheduled the first foundation symposium on 8th January 2005, and thereafter in January of each year in past 12 years (Table 1). Various specialties and subspecialties of medicine were covered in the symposium lectures, including internal medicine and medical subspecialties, surgery and surgical subspecialties, orthopaedic surgery, obstetrics and gynaecology, paediatrics, pathology, psychiatry, clinical oncology, radiology and interventions, community medicine, public health and traditional Chinese medicine. Speakers invited were scholars or experts from Macau hospitals, The Chinese University of Hong Kong, Xiamen University, and Institutes in Beijing and Taiwan. The attendants were overwhelming, with 250 to over 500 registered medical and paramedical professionals each year from Macau, Hong Kong and Pearl River Delta territories. Apart from updating the advances and providing CME of various medical fields, the symposium has provided a precious opportunity for academic exchange between professionals in Macau, Hong Kong, mainland China and Taiwan, and has become one of the biggest scientific events in academic contents and advances, as well as in attendance in Macau.

Year	Registered Attendants	Symposium Duration	Lectures	Speaker invited	Remarks
2005		1 day	6	Hong Kong, Macau	Inauguration of Foundation
2006		1 day	6	Hong Kong	
2007		2 days	10	Hong Kong	4 CME lectures
2008		1 day	6	Hong Kong	
2009	446	1 day	6	Hong Kong	
2010	515	1 day	8	Hong Kong	Inauguration of Healthland, & Healthland exhibition
2011	433	1 day	7	Hong Kong	Inauguration of MADA First MADA satellite scientific meeting
2012	261	1 day	11	Hong Kong, Xiamen, Beijing, Taiwan	
2013	300	2 days	9	Hong Kong, Xiamen, Beijing, Taiwan	
2014	387	2 days	16	Hong Kong, Xiamen, Taiwan	
2015	403	2 days	15	Hong Kong, Xiamen, Taiwan	
2016	410	2 days	12	Hong Kong, Xiamen, Taiwan	

Table 1: Foundation Symposium 2005-2016

MADA: Macau Alzheimer's Disease Association

Exhibition of Foundation-sponsored Projects

Posters were exhibited at the symposia for 3 research projects sponsored by the Foundation, including passive smoking, environmental smoke pollution and atherogenesis, HIV infection and genetic mutations in lung cancer in 2006, 2007 and 2012 respectively. Important findings and their implications were presented and shared.

Health Education Programmes

a) Health Exhibition

The Foundation co-sponsored, together with the Medical Society of The Chinese University of Hong Kong, health exhibition on cardiovascular, respiratory, eye and digestive diseases in 2010, 2014, 2015 and 2016 respectively. The responses from the general public and medical students were very positive.

b) Neuroscience knowledge education in Secondary students

The Foundation first took up the International Brain Bee Competition in Macau in 2016 as sole sponsor in order to encourage more secondary school students to join in and inspire them to pursue careers in neuroscience and other related medical fields. Following the competition, we have also invited a professor from the Brain and Mind Institute (BMI) to deliver a lecture at the prize presentation ceremony and organize a visit to the BMI for Macau secondary school students. The Foundation will continue to sponsor and organize this public education event in 2017.

c) Symposium on Brain and Mind

The Foundation sponsored the Brain and Mind Institute (BMI) to organize the first "BMI International Symposium on Cognitive and Development Neuroscience: From Molecule to Behavior" in 2015. The next BMI International Symposium on Early Language and the Brain will be held in April 2017.

d) Public Health Lecture

Public lectures on hypertension, cardiovascular diseases, breast cancer, hostel care in the elderly, and air pollution were scheduled in 2009, 2010 and 2015 respectively with overwhelming responses.

Burg

Prof Woo Kam Sang Symposium Coordinator

David Hu

Prof David Hui Symposium Coordinator

何鴻燊博士醫療拓展基金會醫學研討會歷屆講者名單及其簡歷 List of past speakers of Dr Stanley Ho Medical Development Foundation Symposium and their updated profiles

Listed in alphabetical order of surname. Only major positions held by the speakers are listed. 依姓氏字母順序排列,當中只列出講者主要職銜。

Videos and slides of past talks can be accessed by scanning the QR code on the right or from the URL below:

歷屆醫學研討會的視頻及部分講義已上載到基金會網站的醫學研討 會專頁,市民可透過掃描二維條碼或登錄以下網址瀏覽:

http://drhomed.org.mo/tc/page.aspx?name=public

Professor Chan Ka Leung Francis 陳家亮教授

Dean of Faculty of Medicine;

Choh-ming Li Professor of Medicine and Therapeutics; Professor, Division of Gastroenterology & Hepatology, Department of Medicine and Therapeutics

2006	The Use of NSAIDs in a COX-2 Restricted
2006	Environment

Professor Chan Kai Ming 陳啟明教授

Emeritus Professor of Orthopaedics and Traumatology, The Chinese University of Hong Kong kaimingchan@cuhk.edu.hk

	Management and Prevention of Sports Injuries-	
2009	New Technology and New Concept	
	運動創傷的防治-新科技及新思維	

Sports Medicine, Arthroscopic Surgery of the Knee and Shoulder, Tendinopathies and Rehabilitation of Sporting Injuries

Professor Chan Lam Stephen 陳林教授

Associate (Clinical) Professor in Department of Clinical Oncology, The Chinese University of Hong Kong I chan@clo.cuhk.edu.hk

2015	Personalized Medicine- Oncology as a model
2015	以腫瘤學科模式看個人化醫學

Clinical and traditional researches for gastrointestinal cancers, especially hepatobiliary and pancreatic cancers.

Dr. Chan is the associate editor of Asia-Pacific journal of Clinical Oncology and serving the editorial board of Liver International. He is the key investigator in multiple international clinical trials on novel drugs for liver cancers. He is currently international member of the NCI Hepatobiliary Task Force of the Gastrointestinal Steering Committee in United States. Since 2016, he has also been the Chairman of Hand-in-hand Cancer Foundation, which is a charity serving the cancer patients in the community. He published more than 100 peer-reviewed papers in international journals including the Journal of Clinical Oncology and the Lancet. He has been the principal investigator of a number of clinical trials including projects funded by General Research Fund, University Grant Committee in Hong Kong, Innovation and Technology Fund and Hong Kong Health and Research Fund

of Hong Kong Government, as well as international grants such as the Sister Institution Network Fund of MD Anderson Cancer Center.

Professor Chan Lik Yuen Henry 陳力元教授

Assistant Dean (External Affairs), Faculty of Medicine; Professor, Department of Medicine and Therapeutics; Head, Division of Gastroenterology and Hepatology; Director, Institute of Digestive Disease; Director, Centre for Liver Health, The Chinese University of Hong Kong hlychan@cuhk.edu.hk

2007	Non-alcoholic Fatty Liver Disease in Chinese 華人非酒精性脂肪肝的情況
2013	Debrief of Asia-Pacific Guideline for Hepatitis B 亞太乙肝指南解讀

Dr Chan Yin Yan Anne 陳然欣醫生

Associate Consultant, Honorary Clinical Tutor, Division of Neurology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong b109379@mailserv.cuhk.edu.hk

	Advanced in Management of Parkinson's Disease,
2015	a Holistic Approach
	綜合診治柏金森症的進展

Professor Chao Hsiao Ming 趙效明教授

Associate Professor, Institute of Pharmacology, School of Medicine, National Yang-Ming University, Taipei, Taiwan; Section Chief & Retina Specialist, Ophthalmology, Cheng Hsin General Hospital, Taipei, Taiwan hsiaoming.chao@gmail.com

 Retinal Ischemia & its Relevance to Brain

 Ischemia: Bench to Clinical, Steroid, Anti-VEGF,

 Neuroprotectant, Retinal Chip & Stem Cell

 視網膜缺血及腦缺血相關性:從基礎到臨床,

 類固醇,血管內皮細胞生長因子抗體,神經保護

 劑,電子眼及幹細胞

細胞治療.神經保護劑.中草藥新藥之研發 網膜病變:老年黃斑病變.網膜缺血病變.網膜鐵毒病 變.糖尿病網膜病變.網膜剝離

Doctor Gregory Cheng 鄭彥銘醫生

Consultant (Internal Medicine, Haematology) University Hospital, Macau University of Science and Technology ggcheng@must.edu.mo

	Mini-management of Common Hematological
2006	Disease
	常見血液科疾病的「微型基本」處理

Professor Chen Jian 陳健教授

Medical Doctor, Professor, Medical Officer in Geriatrics, Zhongshan Hospital Xiamen University chenjian5@medmail.com.cn

2014	Uses of Vitamin D supplementation for the elderly
2014	老年人補充維生素 D 的應用

Professor Cheng CY Jack 鄭振耀教授

Professor and Chairman of Orthopaedics and Traumatology, Choh-Ming Li Professor of Orthopaedics and Traumatology, The Chinese University of Hong Kong jackcheng@cuhk.edu.hk

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		Update on the aetio-pathogenesis and
	2014	management of adolescent idiopathic scoliosis
		青少年特發性脊柱側凸病因學研究及
		治療的新進展

Orthopaedics, Paediatric Orthopaedics

Professor Cheng is currently Chairman and Choh-Ming Li Professor of the Department of Orthopaedics and Traumatology in CUHK Faculty of Medicine. Professor Cheng is a paediatric orthopaedics specialist. His research interests includes etiopathogenesis of adolescent idiopathic scoliosis, congenital muscular torticollis, bone mineral research and biomaterial basic science and applied studies. He has published over 400 publications in international journals, contributed to 19 book chapters and serves on the editorial boards of a number of international professional journals. He is a fellow and member of over 20 local and international professional and medical organisations.

Professor Chiu WY Philip 趙偉仁教授

Assistant Dean (External Affairs), Faculty of Medicine Professor, Division of Upper GI Surgery,

Department of Surgery

Director, CUHK Jockey Club Minimally Invasive Surgical Skills Center

Director, Chow Yuk Ho Technology Center for Innovative Medicine

The Chinese University of Hong Kong, Hong Kong philipchiu@surgery.cuhk.edu.hk

	Advances in the management of gastroesophageal
2014	reflux disease
	胃食道反流治療的新進展

Professor Chong Kam Lung Kelvin 莊金隆教授

Assistant Professor, Department of Ophthalmology & Visual Science, The Chinese University of Hong Kong chongkamlung@cuhk.edu.hk

2016 Recent Advances in Ophthalmology 眼科新進展

Professor Chow Chun Chung Francis 周振中教授

Consultant Physician & Clinical Associate Professor (honorary), Division Head of Endocrinology & Diabetes; Chief of Service, Department of Medicine & Therapeutics, The Chinese University of Hong Kong ccf193chow@cuhk.edu.hk

Strategies in Combating Obesity in the Twenty-first 2010 Century

肥胖症-21世紀新挑戰

Specialist in Endocrinology, Diabetes & Metabolism Dr Francis CC Chow is currently the President of the Hong Kong Association for the Study of Obesity.

He has been the national principal investigator of more than 35 multi-national, multi-centre phase II and III clinical trials since 1998, including NAVIGATOR, CAROLINA, EXAMINE, BEGIN, BOOST, HARMONY, SCALE and SUSTAIN. Over the years, he has published extensively, and is the leading author and co-author of over 190 publications of original research and reviews in peer-reviewed international journals. His research interests include epidemiology and treatment modalities in diabetes, obesity, thyroid disorders and pituitary disease.

Professor Chung Kwok Hung Tony 鍾國衡教授

Associate Dean (General Affairs), Faculty of Medicine; Professor of Obstetrics & Gynaecology, The Chinese University of Hong Kong tonychung@cuhk.edu.hk

	Advances in Management of Common
2010	Gynaecological Disease
	一般婦科疾病處理的新進展

Doctor Dai Lok Kwan David 戴樂群醫生

Chairman, Hong Kong Alzheimer's Disease Association

	Perioperative Management of Hip Fracture: An
2010	Orthogeriatric Co-management
	老人骨科協作之股骨折斷手術前後的處理

Doctor Ding Li Jun 丁麗君醫生

Chief Psychiatrist, Xiamen Xianyue Hospital juneding0504@sina.com

2013 Approach to Combat Depressive Illness 戰勝抑鬱的方法

MD, MPH; 1990, Graduated from Hengyang Medical College; Visiting Scholars: 1999 in Japan; 2009 in Canada; 2015 in USA; subspecialty: Anxiety disorders and OCD, CBT/ DBT

Professor Fang Shiuh Bin 方旭彬教授

Director/Assistant Professor, Division of Pediatric Gastroenterology & Hepatology, Department of Pediatrics, Shuang Ho Hospital; Department of Pediatrics, School of Medicine, Taipei Medical University sbfang@tmu.edu.tw

2015Evidence-based clinical application of probiotics益生菌之實證醫學臨床應用

Pediatric gastroenterology, hepatology, and nutrition; Pediatric sonography; Salmonella virulence genes; Probiotics

Dr Shiuh-Bin Fang received his MD degree with the Best Intern Award at Taipei Medical University in 1993. After serving as a medical officer in the army for 2 years, he did his pediatric residency from 1995 to 1998 in Mackay Memorial Hospital. He was awarded as the Best Resident to continue his fellowship in paediatric gastroenterology and hepatology from 1998 to 2000. Afterward he worked as an Attending Physician in Pediatrics in Chung Shan Medical University Hospital in Taichung and Taiwan Adventist Hospital in Taipei. During the period between 2001 and 2007, he dedicated himself to not only clinical practice but also teaching medical and nursing students. Meanwhile, he collaborated with Professors Jung-Tang Huang and Shao-Yi Hou at National Taipei University of Technology to develop rapid non-PCR methods for early detection of Salmonella spp. and its antibiotic resistance using nanotechnology. He was promoted as Director of the Department of Pediatrics in Taiwan Adventist Hospital from 2005 to 2006.

Awarded with the Taiwan Government Scholarship, Dr Fang earned his PhD under the supervision of Professor Alan Phillips in University College London Medical School in 2011, focusing on the early interactions of non-typhoidal Salmonella with human intestinal epithelium. During his study, he frequently collaborated with Professor Duncan Maskell in University of Cambridge and Wellcome Trust Sanger Institute and identified 6 novel Salmonella virulence genes responsible for bacterial adhesion, invasion, and intracellular replication in human epithelial cells. He returned Taiwan to continue his clinical and academic career at Taipei Medical University in June 2011 and successfully got three national grants from the National Health Research Institutes and the Ministry of Science and Technology during 2012-2014. His current research involves study of Salmonella virulence genes, attenuated Salmonella strains as oral vaccine vectors, regulation of non-typhoidal Salmonella on host innate immunity, the effects/mechanisms of probiotics/health foods, and pathogen-host interactions using human intestinal in vitro organ culture and in vitro M cell models, showing his great interest in translational medicine bridging basic and clinical science.

Professor Fok Tai Fai 霍泰輝教授

Pro-Vice-Chancellor / Vice-President, Choh-Ming Li Professor of Paediatrics, The Chinese University of Hong Kong taifaifok@cuhk.edu.hk

2006 Preterm Infants- Controversies in Management

Professor Tai-fai Fok graduated in Medicine from The University of Hong Kong and received his MD at The Chinese University of Hong Kong. His research interest is in newborn care, especially the prevention and management of respiratory conditions, newborn infection and newborn growth. He has published over 380 refereed articles. Professor Fok is dedicated to the development of medical education and research. He has extensive experience in committee and advisory board services for the Government and non-governmental organizations.

Professor Andrew Van Hasselt 尹懷信教授

Professor of Surgery (Otor), Department of Otorhinolaryngology, Head and Neck Surgery, The Chinese University of Hong Kong andrewvan@ent.cuhk.edu.hk

	Cochlear Implantation and Nasopharyngeal	
2007	Carcinoma in Southern China	
	耳蝸植入和華南鼻咽癌	

Professor Ho (Chan) Suzanne 何 (陳) 雪鸚教授

Emeritus Professor of Public Health and Primary Care in the Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong suzanneho@cuhk.edu.hk

2010	Strategies for Active Longevity
	活力晚年全攻略

Suzanne C Ho is Founding Director of the Centre of Research and Promotion of Women's Health of the Medical Faculty of the Chinese University of Hong Kong. Former Head of Epidemiology Division, Professor Ho is also the Founding Director of the Postgraduate Programmes in Women's Health Studies, and Epidemiology and Biostatistics.

Professor Ho's major research interests are in aging, nutritional epidemiology, women's health, particularly cardiovascular disease risks, osteoporosis, and breast cancer; nutritional epidemiology (focus on dietary soy intake and women's health). She has obtained many competitive grants from the government as well as international research funds for studies in the abovementioned areas. Her publications have totaled 21 books/ book chapters, and over 250 scientific publications in refereed journals. Professor Ho was elected by South China Morning Post the 2012 Women of Our Time.

Professor Hon Kam Lun Ellis 韓錦倫教授

Professor, Department of Paediatrics, The Chinese University of Hong Kong ehon@hotmail.com

2012	Myths and fallacies
2012	兒童濕疹神話與謬誤

Professor Hui Shu Cheong David 許樹昌教授

Stanley Ho Professor of Respiratory Medicine; Chairman, Department of Medicine and Therapeutics; Director, Stanley Ho Centre for Emerging Infectious Diseases; Director, SH Ho Sleep Apnoea Management Center, The Chinese University of Hong Kong dschui@cuhk.edu.hk

2005	慢性阻塞性肺病及阻塞性睡眠呼吸窒息綜合症 的最新發展
2000	Obstructive Sleep Apnoea Syndrome – Update on
	Management & Cardiovascular Complications
2008	阻塞性睡眠呼吸窒息綜合症的治療進展及相關
	心血管併發症
	An update on treatment of obstructive sleep
2012	apnoea
	治療睡眠呼吸氣道阻塞綜合症的最新進展
2014	H7N9 & the Middle East Respiratory Syndrome
	H7N9
	及中東急性呼吸病症候

Prof Hui has been working as an academic clinician since 1998 at the Prince of Wales Hospital, HK where a major outbreak of SARS occurred in 2003. Since 2004, he has frequently served as an advisor to the WHO on the clinical management of emerging severe acute respiratory infections (SARI) including avian influenza, pandemic influenza and MERS. Prof Hui has published well over 260 peer-reviewed journal articles and 23 book chapters. His research interests include the clinical management of SARI, safety of respiratory therapy and hospital infection control in the post SARS era.

Professor Hung Leung Kim 熊良儉教授

Professor, Department of Orthopaedics & Traumatology, Faculty of Medicine,

The Chinese University of Hong Kong leungkimhung@cuhk.edu.hk

2012	Musculoskeletal problems among geriatric patients
	高齡病人的骨關節疾患

Professor Ip Hing Lung Vincent 葉慶龍教授

Associate Consultant & Hon. Assistant Professor, Division of Neurology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong

2016	Management of Cranio-cervical Arterial Stenosis
	頭頸動脈血管狹窄的處理

Ischemic Stroke and cranial stenosis

Professor Kong Pik Shan Alice 江碧珊教授

Associate Professor, Department of Medicine & Therapeutics;

Honorary Associate Consultant, Prince of Wales Hospital, The Chinese University of Hong Kong

alicekong@cuhk.edu.hk

2009	New Advances in Diabetes Management
	治療糖尿病的最新進展

Professor Kwok Chi Yui Timothy 郭志鋭教授

Professor, Department of Medicine & Therapeutics and School of Public Health,

Director, Jockey Club Centre of Positive Ageing,

Director, CUHK Jockey Club Centre for Osteoporosis Care and Control,

Faculty of Medicine, The Chinese University of Hong Kong tkwok@cuhk.edu.hk

2009	An Integrative Approach in Management of
	Geriatric Diseases
	治療老人科疾病的綜合處理
2013	Advances in Diagnosis and Treatment of Alzheimer
	Disease
	阿爾茨海默氏症的治療與展望
2016	Prevention of Dementia
	預防腦退化

Professor Lai Bo San Paul 賴寶山教授

Professor and Head of Hepato-Billary and Pancreatic Surgery, Department of Surgery, The Chinese University of Hong Kong paullai@surgery.cuhk.edu.hk

2015	Quality improvement in Surgery
	提升外科手術質素

Professor Lam Chiu Wa, Linda 林翠華教授

Assistant Dean (General Affairs), Faculty of Medicine; Professor and Chairman, Department of Psychiatry; Director, Dementia Research Unit; Director, Chen Wai Wai Vivien Foundation Therapeutic Physical Mental Exercise Centre, The Chinese University of Hong Kong cwlam@cuhk.edu.hk

	Pharmacological and non-pharmacological
2014	Treatment for Dementia
	認知障礙症 (痴呆症) 治療方案

Professor Lam is Fellow of the Hong Kong College of Psychiatrists and the Royal College of Psychiatrists (United Kingdom). At present, she is the Immediate Past President of the Hong Kong College of Psychiatrists. She is also the past Chief Editor of the East Asian Archives of Psychiatry, and the founding President of the Chinese Dementia Research Association in 2009.

Professor Lam's main research interests have been the assessment of neurocognitive disorders, identification of risk factors and early intervention for cognitive decline in late life. She has recently completed the first territory wide epidemiological survey of mental disorders in Hong Kong, and pioneered structured lifestyle cognitive and physical activity interventions for Chinese older adults with neurocognitive disorders. Professor Lam has over 150 peer review publications in related areas.

She serves on the Editorial Boards of different psychiatric journals, and is grant reviewer for the grant review boards in Hong Kong, the Alzheimer's Association in the United States and Alzheimer's society in United Kingdom. She is also a member of the Operational Committee on Scientific Publications of the World Psychiatric Association.

Doctor Lam Tsze Ho Philip 林子顥醫生

Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong

2008	Cataract and Refractive Lens Surgery
	白內障及晶體矯視手術

Professor Lao Tzu Hsi Terence 勞子僖教授

Professor of Department of Obstetrics & Gynaecology, The Chinese University of Hong Kong lao-tt@cuhk.edu.hk

	Overview on Management of Obstetric
2013	Emergencies
	產科緊急情況處理的概觀

Undergraduate study in the University of Hong Kong. MRCOG 1982. Training in Obstetric Medicine in Queen Charlotte's Maternity Hospital, London 1983-4. Fellowship in Maternal-fetal Medicine in Toronto 1989-1993. Worked in the Department of Obstetrics & Gynaecology at Queen Mary Hospital in 1993-2008 as Associate Professor and then Professor. Worked in Department of Obstetrics & Gynaecology of the Prince of Wales Hospital from 2008. Special interest in maternal medicine, perinatology, and high risk pregnancy. Published >250 papers in peer reviewed international journals. Reviewer of 20+ journals, and serving on the editorial board. Provided expert medical opinion on >120 cases.

Doctor Lau Tze Kin 劉子建醫生

Doctor, Specialist in Obstetrics & Gynaecology, Private Practice drtklau@hkparamount.com Specialist in Obstetrics & Gynaecology

2006	Recent Advances in Prenatal Diagnosis and
	Therapy

Professor Lau YW James 劉潤皇教授

Chairman & Yao Ling Sun Professor of Surgery Chief, Division of Vascular Surgery Department of Surgery, Faculty of Medicine The Chinese University of Hong Kong laujyw@surgery.cuhk.edu.hk

 2008
 Endovascular Stent Grafting for Aortic Conditions

 動脈病變及血管內支架移植術

Professor Albert Lee 李大拔教授

Clinical Professor of School of Public Health and Primary Care, The Chinese University of Hong Kong

alee@cuhk.edu.hk

2006	Aspects on Current Practice of Family Medicine
2007	Important Role of Primary Care Physicians in
	Preventive Medicine
	全科醫生於預防醫學所擔當的重要角色
2007	How to Handle Adolescent Health Problems in
	Primary Health Care
	於基層醫療體系內處理青少年的健康問題

Professor Lee Chyi Long 李奇龍教授

Professor, Vice Superintendent, Kee Lung Chang Gung Memorial Hospital, Taiwan leechyilong@gmail.com

Aspects of Minimally Invasive Surgeries: 2013 A Global Trend 婦科微創手術治療之新趨勢

Robotic Surgery for Gynecologic Oncology, Reproductive Endocrinology, Endometriosis, Laparoscopy, Hysteroscopy, Menopause and Cancer Therapy.

Prof. Lee graduated from the Taipei Medical University and received his Ph.D. in the Kyorin University, Japan. Prof. Lee specializes not only in reproductive surgery but also in laparoscopic oncologic surgery. He has creativity in many endoscopic surgeries. There are many new techniques developed by him such as Lee-Huang point, as the first trocar insertion site, he is also the pioneer of laparoscopic radical trachelectomy and laparoscopic radical surgery for stamp cancer...etc.

As speaker and organizer of numerous local and international conferences and workshops, Prof. Lee is dedicated to the development and education of minimally invasive surgery all over the world.

Doctor Lee Kit Fai 李傑輝醫生

Consultant Surgeon, Department of Surgery, Prince of Wales Hospital leekf@surgery.cuhk.edu.hk

2011	Advances in Liver Surgery
2011	肝臟手術新進展

Professor Lee Lai Shun Nelson 李禮舜教授

Professor and Head of Infectious Diseases, Department of Medicine and Therapeutics, The Chinese University of Hong Kong leelsn@cuhk.edu.hk

 2012
 Severe influenza infections

 嚴重感冒病毒感染

Professor Lee Shui Shan 李瑞山教授

Professor in Stanley Ho Centre for Emerging Infectious Diseases, The Chinese University of Hong Kong Immunology and Allergy sslee@cuhk.edu.hk

2015	New perspectives of HIV treatment
	治療愛滋病毒感染的新觀點

Dr Lee is a clinician and specialist in internal medicine, immunopathology and public health. Between 1991 and 2005, Dr Lee headed the Government's AIDS programme, during which he directed Hong Kong's HIV prevention, control and treatment services. He is now Deputy Director of The Chinese University's Stanley Ho Centre for Emerging Infectious Diseases and a staff member of Department of Microbiology. He has, on various occasions, served as consultant to national and international organizations in the assessment of HIV situations, programme evaluations, and harm reduction development. His major areas of research interest include HIV treatment, infectious disease epidemiology, spatio-temporal and network dimensions of infection transmission. He has authored over 190 peerreviewed articles, about 40 book chapters, and is the editor of the HIV Manual in Hong Kong.

Professor Lee Shun Wah Jenny 李舜華教授

Professor, Department of Medicine and Therapeutics, The Chinese University of Hong Kong medt@cuhk.edu.hk

2015 Prescribing for the different stages of dementia 不同階段失智症的處方

Professor Lei leng Kit, Kenny 李英傑教授

Consultant & Hon Associate Professor, Department of Clinical Oncology, The Chinese University of Hong Kong kennylei@cuhk.edu.hk

	Advances in the Management of blood cancer:
2016	New Drugs, New Approach
	血癌治療之最新進展

Dr. Kenny Lei is a Consultant and Honorary Associate Professor at the Department of Clinical Oncology, the Chinese University of Hong Kong. He is a specialist in medical oncology and haematology/haematologic oncology. Dr. Lei received his medical degree in 1990 and the Doctorate Degree in Medicine in 2002 from the Chinese University of Hong Kong. He also served as Medical Fellow in Hematology/Oncology at the University of Minnesota in 1995 and completed the Clinical Exchange Program at the University of Texas MD Anderson Cancer Center in 1996. Dr. Lei served as Director of the Ambulatory Cancer Care Center at Prince of Wales Hospital from year 2006-2011. He has also conducted clinical and translational research in haematologic malignancies, leading to publications in peer review journals. His research focus has been on lymphoma, circulating tumor markers in extranodal lymphomas and blood cancer. Dr. Lei has received several honors and awards for his clinic work and research, including the Pan-Pacific Cure For Lymphoma Conference Award in 1997 and The 318 Award For Contribution & Support to Patients with Chronic Illness.

Professor Leu Hsin Bang 呂信邦教授

Assistant Professor, Division of Cardiology, Department of Medicine, Taipei Veterans General Hospital, Taipei, Taiwan hbleu@vghtpe.gov.tw

The Management and Prevention of Ischemic 2016 Heart Disease

____ 缺血性心臟病之治療與預防

成人心臟內科,高血壓 Hypertension,冠心症 Coronary Artery Disease,氣球擴張術的治療 Cardiac Catheterization, PTCA+stent,心臟導管檢查、經皮氣球擴張血管成形術 及支架、高血壓

Professor Leung Kwok Sui 梁國穗教授

Emeritus Professor of Department of Orthopaedics & Traumatology,

The Chinese University of Hong Kong

ksleng@cuhk.edu.hk

2000 Hudbarloh in Orthopacale Hadman Surger	ry
Prevention of Fall and Fragility Fractures in the Elderly – From Hospital to Community 老年跌倒和脆性骨折的預防 – 從醫院到社區的 一體化計劃	勺

Orthopaedic Trauma and Fracture Fixation, research in aging of musculoskeletal tissue and application of automation and computer aided, Orthopaedic surgery, Fall and fracture prevention

Professor Leung devotes in trauma field in the past and is a key inventor of Gamma nail Asia Pacific. He actively contributes to fall and fracture prevention in the community in recent decades. He is a foundation member of international society for fracture repare, founding president of Asian Association for Dynamic Osteosynthesis, vice-Chairman of Chinese Society for computer assisted surgery and an active member of orthopaedic research society. He has published more than 220 peer-reviewed international articles, 4 books, 38 book chapters and more than 500 conference abstracts. He contributes as editor of 16 books and 5 professional journals. He was awarded with Chief Executive's Commendation for Government/Public Service in 2009 and holds 15 patents.

Doctor Leung Sing Fai 梁承暉醫生

Consultant, Department of Clinical Oncology, Prince of Wales Hospital

	Common Questions about Present-day Cancer
2011	Treatment
	現今癌症治療之常見疑問

Professor Leung Tak Yeung 梁德楊教授

Chairman and Professor of Obstetrics and Gynaecology, The Chinese University of Hong Kong tyleung@cuhk.edu.hk

2014	Antenatal screening model in the 21st century
	21 世紀的產前檢查模式

Professor Leung is the Chairman of the Department of Obstetrics and Gynaecology of The Chinese University of Hong Kong, as well as the Director of the Maternal Fetal Medicine of the same unit.

His special interest is in prenatal screening, diagnosis and therapy of fetal abnormalities, twin pregnancy, preterm delivery, fetal growth restriction, and external cephalic version. He and his unit have successfully launched in Hong Kong the first trimester Down screening, maternal carrier screening for Fragile X disease, newborn expanded metabolic screening, array comparative genomic hybirdisation for prenatal diagnosis, fetoscopic laser therapy for twin-twin transfusion, and radiofrequency for fetal reduction. He also participated in the research and clinical application of maternal circulating cell-free fetal DNA for non-invasive prenatal diagnosis.

Professor Leung has published more than 230 papers in international peer reviewed journals. He is also invited into the editorial board of international journals such as American Journal of Perinatology and Pediatric Research (Fetus & Pregnancy Section).

He is also the Senior Vice President of Hong Kong College of Obstetricians and Gynaecologists, and the Treasurer of Obstetrical and Gynaecological Society of Hong Kong.

Professor Leung Ting Fan 梁廷勳教授

Chairman and Professor of Department of Paediatrics, The Chinese University of Hong Kong tfleung@cuhk.edu.hk

2015	What's new on childhood food allergy?
2015	兒童食物敏感症的新認知

Paediatric Allergy, Immunology and Infectious Diseases Professor Leung graduated from The Chinese University of Hong Kong in 1992, and received subspecialty training on Immunology and Allergy in the Hospital for Sick Children in Toronto, Canada in 1997-1998. He was awarded Doctor of Medicine degree in 2004 for his research works on immunogenetics of childhood asthma. Professor Leung was elected as an International Fellow of the American Academy of Allergy, Asthma and Immunology in 2011 and a First Fellow in Paediatric Immunology and Infectious Diseases subspecialty of the Hong Kong College of Paediatricians in 2012. Professor Leung is Secretary-General of the Asia Pacific Association of Pediatric Allergy, Respirology and Immunology, Vice President of the Hong Kong Society for Paediatric Immunology, Allergy and Infectious Diseases and fellows or members of over 10 other regional and international subspecialty organizations. He published more than 300 refereed journal articles, supervised 24 postgraduate students, and serves as editor, editorial board member or reviewer for over 60 international journals in the fields of allergy, immunology, infectious diseases, pulmonology, dermatology and genetics.

Professor Leung WH Thomas 梁慧康教授

Lee Quo Wei Associate Professor of Neurology, Department of Medicine & Therapeutics Director, Acute Stroke Unit, Director, Kwok Tak Seng Centre for Stroke Research and

Intervention,

Faculty of Medicine, The Chinese University of Hong Kong drtleung@cuhk.edu.hk

2008 Neuroendovascular Therapy for Ischemic Stroke 缺血性中風的微創介入治療

Professor Li Man Chim Albert Martin 李民瞻教授

Professor, Department of Paediatrics, The Chinese University of Hong Kong

albertmli@cuhk.edu.hk

Indeced Sputum-2007 Its Application in Childhood Asthm 誘導痰分析在兒童哮喘的臨床應用

Professor Liao Shih Cheng 廖士程教授

Clinical assistant professor, Department of Psychiatry, College of Medicine, National Taiwan University

scliao@ntu.edu.tw

2014	Update on Treatment of Psychoneurotic and
	Manic-depressive Disorders: A Focus on Major
	Depression
	精神官能疾患以及情感性精神病之治療新進
	展:以重度憂鬱症為例

Doctor Liu Kin Wah 廖建華醫生

Doctor, Specialist in Geriatrics, Private Practice

Alzheimer's and Non-alzheimer's Dementia: 2011 A Clinical Approach 阿氏與非阿氏痴呆症之實用臨床診斷

Doctor Liu Ta Li David 劉大立醫生

Doctor, Director of Dr. David Liu & Partners Eye Center dliu@gleaneye.com

- Advances in Management of Macular 2013 Degeneration and Cataract in the Elderly
 - 老年黃班病變及白內障的最新治療

Ophthalmology

Professor Lo Yuk Ming Dennis 盧煜明教授

Associate Dean (Research), Faculty of Medicine Director of the Li Ka Shing Institute of Health Sciences Li Ka Shing Professor of Medicine Professor of Chemical Pathology Associate Director, State Key Laboratory in Oncology in

South China, The Chinese University of Hong Kong loym@cuhk.edu.hk

Non-invasive Prenatal Diagnosis:2011from Dream to Reality

Molecular diagnostics, non-invasive prenatal testing

Doctor Lo Wing Kit Keith 盧永傑醫生

Specialist in Obstetrics and Gynaecology, Private Practice

	The End of Cervical Cancer – Not a Dream
2008	Anymore
	子宮頸癌的終結 – 不再是夢想

Professor Ma CW Ronald 馬青雲教授

Professor, Division of Endocrinology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong rcwma@cuhk.edu.hk

2015	Advances in the Management of Type 2 Diabetes
	2型糖尿病管理的新發展

Professor Mok SK Tony 莫樹錦教授

Chairman, Department of Clinical Oncology, Li Shu Fan Professor of Clinical Oncology, The Chinese University of Hong Kong mok206551@cuhk.edu.hk

2007	A molecular Era in Oncolory
	份子醫藥年代的腫瘤病學

Professor Ng Chi Fai Anthony 吳志輝教授

Professor of Division of Urology, Department of Surgery, The Chinese University of Hong Kong ngcf@surgery.cuhk.edu.hk

	Recent Advances in the Management of Benign
2014	Prostatic Hyperplasia
	前列腺增生治療的新發展

Professor Ng graduated from the Chinese University Hong Kong in 1993, he joined the Department of surgery, Prince of Wales hospital after basic training. He decided to become a urologist, and in 2002 to Scotland following Professor David Tolley a year, mainly underwent laparoscopic surgery and treatment of calculus of training. After the training, Professor Ng is the director and Professor of Ho Shin Hang in urology. He is also the director of robotics surgery training course at the Hong Kong Jockey Club, CUHK. He has a wide range of clinical interests, especially in prostate disease, urinary tract stones, and promotion men health. He was awarded the outstanding young college of physicians in the Department of Urology in Asia in 2010, also received an international visiting scholar at the American College of surgery in 2012 in recognition of his work in the field of urinary tract. In addition to clinical and scientific research, Professor Ng also actively involved in education. At present, he is a member of the Institute of surgery and Department of Urology branch committee. He is also a member of the Education Committee of the Department of Urology, Hong Kong. In addition, he has been awarded the best teacher award at the Chinese University Hong Kong (2008-2009, 2011-2012).

Professor Ng Pak Cheung 伍百祥教授

Professor, Department of Paediatrics, The Chinese University of Hong Kong pakcheungng@cuhk.edu.hk

2010 Treatment of Systemic Hypotension in Newborns 新生兒低血壓的治療

Professor Ng Siew Chien 黃秀娟教授

Associate Professor, Division of Gastroenterology & Hepatology, Department of Medicine and Therapeutics, The Chinese University of Hong Kong siewchienng@cuhk.edu.hk

2015 Colorectal cancer screening 大直腸癌的篩查

Professor Ng Siu Kwan 吳少君教授

Consultant & Hon. Clinical Associate Professor, Department of Otorhinolaryngology, Head and Neck Surgery, The Chinese University of Hong Kong ngskaw@netvigator.com

2014	Diagnostic and therapeutic endoscopy of
	salivary glands
	內窺鏡診斷及治療涎腺疾病的應用

Professor Ng Siu Man Simon 吳兆文教授

Assistant Dean (Learning Experience), Faculty of Medicine; Professor, Division of Colorectal Surgery, Department of Surgery, The Chinese University of Hong Kong simonng@surgery.cuhk.edu.hk

 2014
 An update on robotic colorectal surgery

 機器人結直腸手術的最新進展

Prof Simon Ng is the Honorary Secretary of the Hong Kong Society for Coloproctology, a Council Member the Hong Kong Society of Robotic Surgery and Hong Kong IBD Society, an Honorary Member of the Korean Association of Robotic Surgeons, a Board Member of the Asia Pacific Endo-Lap Surgery Group, and a Fellow of the American Society of Colon and Rectal Surgeons (ASCRS). Prof Ng's main clinical and research interests are minimally invasive/ robotic surgery and advanced endoscopic therapy for colorectal diseases, multimodality treatment for colorectal cancer, colorectal cancer screening, integrative medicine, and molecular biomarkers discovery. He has published over 160 articles in peer-reviewed journals, including first-authored publications in top-notched journals such as Lancet, Gastroenterology, and Annals of Surgery. His research work in colorectal surgery has earned him a number of international and national awards, including the Northern California Society of Colon and Rectal Surgeons Award of the ASCRS (2008), the International Guest Scholarship of the American College of Surgeons (2010), the British Journal of Surgery Prize of the European Society of Coloproctology (2011 and 2014), the Royal College of Surgeons of Edinburgh China Medal (2014 and 2016), the Ministry of Education Higher Education Outstanding Scientific Research Output Award – First-class Award in Natural Sciences (2014), and the State Natural Science Award – Second-class Award (2016).

Professor Jenny Ngai 倪珍莉教授

Associate Consultant & Hon. Clinical Assistant Professor, Division of Respiratory Medicine, Department of Medicine & Therapeutics, The Chinese University of Hong Kong

2016 Interventional Pulmonology 介入性肺部手術	

Professor Peng Fang Ku 彭芳谷教授

台北榮民總醫院特約醫師、國立陽明大學兼任外科教 授

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2012 never ti	red
一位老	外科醫師之回顧

Professor Poon Wai Sang 潘偉生教授

Chair Professor and Chief, Division of Neurosurgery, Department of Surgery, Prince of Wales Hospital, The Chinese University of Hong Kong wpoon@cuhk.edu.hk

2009	Updates on Neurosurgery
	腦外科手術的進展

Professor Qi Zhong Quan 齊忠權教授

哈爾濱醫科大學附屬第一醫院副院長; 廈門大學附屬 福州二院副院長 zqqi@xmu.edu.cn

	Prevention of kidney disease and kidney
2012	transplantation
	腎臟疾病的預防及腎臟移

Professor Ren Jian Lin 任建林教授

Medical Officer, Department of Gastroenterology, Zhongshan Hospital Xiamen University renjianl@xmu.edu.cn

2015 Microbiological Profile and Human Health 微生態與人類健康

Professor Su Tung Ping 蘇東平教授

台北榮民總醫院副院長; 國立陽明大學醫學系精神學科教授 tpsu@vghtpe.gov.tw

2012	Depression in Taiwan: From past, present to future
	台灣憂鬱症之發展:過去、現在、未來

Professor Sung Jao Yiu Joseph 沈祖堯教授

Vice-Chancellor and President, Mok Hing Yiu Professor of Medicine, The Chinese University of Hong Kong joesung@cuhk.edu.hk

2008 阿士匹靈所引起的潰瘍疾病問題

Professor Szeto Cheuk Chun 司徒卓俊

Professor, Division of Nephrology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong ccszeto@cuhk.edu.hk

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的普查和治療

Nephrology/Internal Medicine

Dr. CC Szeto is currently a Professor of Department of Medicine & Therapeutics, The Chinese University of Hong Kong, and a Honorary Consultant Physician of Prince of Wales Hospital, Hong Kong Hospital Authority. His research interests include peritoneal dialysis related infections, vascular disease of renal failure, circulating bacterial fragment, urinary biomarkers, and glomerular diseases.

Professor Tam Lai Shan 譚麗珊教授

Honorary Consultant, Prince of Wales Hospital; Professor, Department of Medicine & Therapeutics Faculty of Medicine, The Chinese University of Hong Kong Istam@cuhk.edu.hk

	Early Diagnosis and Management of Inflammatory
2013	Arthritis- A Key to Remission
	及早診斷和治療關節炎以達到緩解

Professor Teoh Yuen Bun, Anthony 張源斌教授

Associate Professor, Department of Surgery, The Chinese University of Hong Kong anthonyteoh@surgery.cuhk.edu.hk

2016 Recent Advances in Endoscopic Procedures 內窺鏡手術的最新進展

Professor Anthony Yuen Bun, TEOH is currently the Deputy Director of Endoscopy and Associate Professor in The Chinese University of Hong Kong. He graduated from the Chinese University of Hong Kong in 2001. Since then, he has completed his surgical training in the Prince of Wales Hospital, Hong Kong and he was awarded with the GB Ong and Li Shield's Medal for the best candidate in the fellowship examinations both locally and internationally. He then completed his overseas training in the Kitasato University East Hospital and the Cancer Institute Hospital (Ariake) focusing on advanced interventional endoscopy and minimally invasive surgery for upper gastrointestinal cancers. His research interests are multifold and these include advanced interventional endoscopic ultrasonography (EUS) and endoscopic retrograde cholangiography (ERCP), minimally invasive surgery, single site access surgery and robotics surgery. He currently serves as a Visiting Professor to the Fujian University Medical Hospital, Consultant for Hepatopancreatobiliary Minimally Invasive Surgery Institute of Central South University, steering committee member for the Asian EUS group, member of upper GI committee of the World Endoscopy Organization, founding member of the Hong Kong EUS society and council member of Hong Kong Hernia society. He is also on the editorial board for several

internationally renowned journals including Clinical gastroenterology and hepatology, VideoGIE, Endoscopic ultrasound, World journal of Gastrointestinal endoscopy and World Journal of Gastroenterology. He has published over 80 journal papers and written 7 book chapters.

Professor Tong Chi Fai Michael 唐志輝教授

Professor & Chairman, Department of Otorhinolaryngology, Head & Neck Surgery, The Chinese University of Hong Kong

2016	Recent Advances in ENT
2016	耳鼻喉的最新進展

Ear, Nose and Throat Surgery

Otology; Neurotology; Skull base surgery; Hearing Implantation; Communication barrier; Epidemiology and public health education especially in elderly health; Development of new techniques of minimally invasive surgery

Doctor Tsoh Mei Yuek Joshua 左美約醫生

Associate Clinical Professor,

The Chinese University of Hong Kong tsohmy@ha.org.hk

2009 Early Recognition and Management of Dementia 痴呆症的及早確診和治療

Professor Tzeng Chii Ruey 曾啓瑞教授

台北醫學大學醫學院院長、北醫附設醫院生殖醫學中 心主任

tzengcr@tmu.edu.tw

2011	Translational Research in Reproductive Medicine
2011	生殖醫學的轉譯研究

Doctor Wan Yuk Pui Innes 溫郁培醫生

Consultant & Hon. Clinical Associate Professor, Department of Surgery, The Chinese University of Hong Kong innesw@surgery.cuhk.edu.hk

2015 Update on Thoracic Surgery 胸肺科手術的最新進展

Professor Wang Kuo Hsien 王國憲教授

Associate Professor in Department of Dermatology, Taipei Medical University Hospital, Taiwan khwang@tmu.edu.tw

	Recent Advances in the Management of Psoriasis:	
2014	A major chronic dermatological disease	
	乾癬(銀屑病)的最新治療進展	

Dermatopathology, psoriasis, cosmetic dermatology Dr. Wang has been trained as a pathologist before being a dermatologist. He is specialized in dermatopathology and psoriasis. Dr. Wang is currently on the editorial board of Dermatologica Sinica and has been an invited reviewer of over 15 different peer-reviewed journals.

Professor Wang Wei 王嵬教授

Dean/Professor/

Director in School of Medical and Health Sciences, Edith Cowan University, Perth, Australia wei.wang@ecu.edu.au

	Mechanism of suboptimal health: genomics meets
2012	glycomics
	亞健康的分子機制:基因組學與糖基組學
	Emerging Issues in Public Health: Perspective on
2013	China's Healthcare System
	中國公共衛生面臨的挑戰

Professor Wang is the Professor of Postgraduate Medicine in the School of Medical and Health Sciences.

Professor Wang holds the following professional memberships: Fellow of Public Health, Royal College of Physicians, United Kingdom (FFPH), Executive Member of the International Society of Translational Medicine (ISTM), Member of the Standing Committee of the International Association of the Anthrophysiology (IAAP), World Health Organization Expert Panel: Grand Challenges in Genomics for Public Health in Developing Countries (WHO).

Professor Wang Yan Hui 王彥暉教授

Associate Dean, Medical college, Xiamen University 2076110@126.com

	Traditional Chinese medicine in treatment and
2012	prevention of cancers
	癌症的中醫藥防治
	TCM Treatment in Relieving Tension and Curing
2013	Insomni
	失眠的中醫藥調治
	Treatment strategies and efficacy of traditional
2014	Chinese medicines in depression disorders
	傳統中藥對治療抑鬱症的策略和療效
2015	Diagnosis of Treatment of Subclinical Health in TC
2015	亞健康的中醫診治
2016	Chinese Medicine Treatment of Heel Pain
2010	中醫藥治療足跟痛

Professor Wang is President of specialty committee of Tongue Manifestation Research of WFCMS (World Federation of Chinese Medicine Societies). He is majored in Traditional Chinese medicine.

Professor Wei Fu Chan 魏福全教授

Distinguished Chair Professor, Chang Gung University, Medical College fuchanwei@gmail.com

	Working Through Operative Microscope, the
2015	Worlds Unite Small and Big
	手術顯微鏡下的小世界與大世界

Reconstructive microsurgery, vascularized composite all transplantation

Dr. Wei became Chairman of the Department of Plastic and Reconstructive Surgery in 1994, vice superintendent in 1997 at Chang Gung Memorial Hospital, and Chancellor of the College of Medicine in 2003 at Chang Gung University. During his tenure as the Chief of the Department of Plastic and Reconstructive Surgery, through his efforts in leading and coordination, his institution developed into a world leading microsurgical center renowned for extensive cases with an unattested level of quality in head and neck reconstruction, facial palsy, brachial plexus, upper and lower extremity, and breast reconstructions.

Dr. Wei developed many ground-breaking concepts, techniques, and innovations which have revolutionized cancer and trauma patient care, and laid the scientific foundation for this medical discipline with major contributions in toe-to-hand transplantation for traumatic digital amputations, fibula osteosepto-cutaneous flaps for long bone and mandibular reconstruction, and perforator flaps and free style flaps for coverage reconstruction of various defects around the body.

Professor Wei was selected as one of the 20 most significant innovators in plastic surgery's 400 years of history by the American Society of Plastic Surgery with the citation: his "accomplishments have left an indeniable impact on the specialty" and this "legend's work serves patients for generations". Professor Wei has trained 115 fellows and mentored 1675 visiting surgeons from 79 countries, many of whom have returned to their respective countries to hold leadership positions.

Professor Wing Yun Kwok 榮潤國教授

Associate Dean (Student Affairs), Faculty of Medicine; Professor, Department of Psychiatry;

Director of Sleep Assessment Unit, Chief of Service in the Department of Psychiatry at Shatin Hospital and Prince of Wales Hospital,

The Chinese University of Hong Kong ykwing@cuhk.edu.hk

2010	Update on Management of Sleep Disorders
2010	治療睡眠問題的新發展
2012	Sleep, obesity and diabetes mellitus
2012	睡眠、肥胖與糖尿病的關係

Professor Wong KS Lawrence 黃家星教授

Mok Hing Yiu Professor of Medicine Head, Division of Neurology,

Department of Medicine & Therapeutics

Convener of BRAIN, Lui Che Woo Institute of Innovative Medicine

Director, SH Ho Centre for Cardiovascular Disease & Stroke Faculty of Medicine, The Chinese University of Hong Kong ks-wong@cuhk.edu.hk

2007	Advances in Management of Stroke Patients
2007	治療中風的進展
	Strategies for Primary and Secondary Prevention
2011	of Stroke
	一級和次級預防腦卒中的最新策略

Professor Wong Kwok Chu George 黃國柱教授

Professor of Division of Neurosurgery, Department of Surgery, The Chinese University of Hong Kong georgewong@surgery.cuhk.edu.hk

	Advances in Limb Salvage Surgery of Primary Bone
2007	Sarcoma
	原發性骨癌保留肢體手術之最新發展
	Recent Advance in the Management of Intracranial
2014	Aneurysms

顱內動脈瘤的治療最新進展

George Wong is a medical graduate of the Chinese University of Hong Kong and is currently a Professor in the Department of Surgery, the Chinese University of Hong Kong. He is a senior member and currently council member of Hong Kong Society of Interventional and Therapeutic Neuroradiology and was a council member of the Hong Kong Neurosurgical Society. He is also currently board member of the Trauma Advisory Board of the NTEC. He is one of pioneers in applying the techniques of Onyx and PHIL embolization of Cerebral Arteriovenous Malformation and Hypofractionated Radiosurgery as well as Minimally Invasive Neurological Therapy (Flow Diverter & Low Profile Stent & ICG Intraoperative Videoangiography) for Intracranial Aneurysm in Hong Kong. He was one of the leading investigators of the recently completed Asian-Australasian multi-centre IMASH trial and the multicentre study on high dose Simvastatin for aneurysmal subarachnoid haemorrhage, and was site co-investigators of CONSCIOUS2 and CONSCIOUS3. He has authored or co-authored over 150 articles. He is actively involved in subarachnoid hemorrhage research.

Professor Wong Kwok Chuen 黃國川教授

Honorary Clinical Assistant Professor, Associate Consultant, Team Head (Orthopaedic Oncology), Department of Orthopaedics and Traumatology, Prince of Wales Hospital, The Chinese University of Hong Kong

Professor Wong Wai Sun Vincent 黃煒燊教授

Professor, Division of Gastroenterology & Hepatology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong

2016 Non-alcoholic fatty liver disease 非酒精性脂肪肝的診治

Professor Wong WK Gary 黃永堅教授

Professor, Department of Paediatrics and School of Public Health, The Chinese University of Hong Kong wingkinwong@cuhk.edu.hk

2011	2011	Advances in the Management of Paediatric Asthma
	治療兒童哮喘的新方向	

Professor Woo Kam Sang 胡錦生教授

Senior College Tutors, United College; The Chinese University of Hong Kong kamsangwoo@cuhk.edu.hk

-	2005	在診斷及治療心血管疾病上的重大突破
	2007	Update on Hypertension Treatment:
		Sense and Non-sense
		高血壓治療的最近進展和謬誤
		Advances in Investigation of Cardiovascular
	2007	Diseases: A Realistic and Cost- effective Perspective
	2007	從實際效益觀點去評估檢測心腦血管的最新
		進展

Professor Wu Yeung Ching Eugene 鄔揚正教授

Specialist in Cardiology Founding Director of HKSTENT & Director of APCTO Club

2016	Interventional Cardiology
2016	介入性心臟手術

Specialist in cardiology

Professor Yan Ping Yen Bryan 甄秉言教授

Associate Professor, Division of Cardiology, Department of Medicine & Therapeutics, The Chinese University of Hong Kong bryan.yan@cuhk.edu.hk

		Advances in Endovascular Intervention for Critical	
2014 Limb Ischemia		Limb Ischemia	
		血管內介入治療嚴重下肢缺血新發展	

Doctor Chiu Wen Ta 邱文達醫師 曾任中華民國衞生福利部部

	Translational Medicine of Traumatic Brain Injury in
2011	Taiwan
	台灣腦創傷醫學的進展

Professor Winnie Yeo 楊明明教授

Professor, Department of Clinical Oncology, The Chinese University of Hong Kong winnie@clo.cuhk.edu.hk

2015 Targeted Therapy in Breast Cancer- Anti-HER2 HER-2 抗原及乳癌標耙治療

Professor Yew Wing Wai 姚榮衞教授

Honorary Clinical Professor, Division of Infectious Diseases, Stanley Ho Centre for Emerging Infectious Diseases and Department of Microbiology, Faculty of Medicine, The Chinese University of Hong Kong

vewww@cuhk.edu.hk

New Strategies in the Treatment of Tuberculosis: 2015 Promise and Limitation? 治療結核病新策略的展望與局限

Doctor Yim Ping Chuen Anthony 嚴秉泉醫生

Doctor, Private Practice

2006 Bronchoscopic Lung Volume Reduction

Professor Yin Zhen Yu 尹震宇教授

Professor and Vice President, Zhongshan Hospital, Xiamen University

yinzy@xmu.edu.cn

	除術
	肝臟三維成像系統的開發與精準肝臟腫瘤切
2012	tumor resection
	development and its application in precise liver
	Three-dimensional liver imaging system

Doctor Yip Kam Hung Sidney 葉錦洪教授

Doctor, Specialist in Urology, Private Practice sidneyyip@surgery.cuhk.edu.hk

2010 Prostate disease: Cancer Screening, New Treatment Modalities and Chemoprevention 前列腺疾病:癌症普查,新治療模式與 癌病預防

Professor Yu CH Simon 余俊豪教授

Chairman & Professor of Imaging and Interventional Radiology

The Chinese University of Hong Kong simonyu@cuhk.edu.hk

2009 Advances in Interventional Radiological Procedures 介入性放射手術的最新進展

Professor Yu Tak Sun Ignatius 余德新教授

Honorary Professor in Jockey Club School of Public Health and Primary Care;

Honorary President in Hong Kong Occupational and Environmental Health Academy iyu@hoeha.org.hk

2015	Air pollution and health
2015	空氣污染與健康

Public health, Occupational and Environmental Health He was former Head of Division of Occupational and Environmental Health, School of Public Health and Primary Care, the Chinese University of Hong Kong, and is currently an Honorary Clinical Professor. He is a fellow of many professional colleges in occupational and environmental health and a medical specialist in Occupational and Environmental Medicine in Hong Kong. He has more than 230 papers published in medical journals and have conducted many research studies related to the health effects of indoor air pollution, including cooking fumes, SARS and influenza viruses, environmental tobacco smoke, incense burning, radon, formaldehyde, household cleaning agents, etc. He is currently Editor-in-Chief of the Hong Kong Medical Journal published jointly by the Hong Kong Academy of Medicine and the Hong Kong Medical Association.

Professor Yung Shu Hang Patrick 容樹恆教授

Consultant & Hon. Clinical Professor, Department of Orthopaedics & Traumatology, Head of Sports Medicine Team, Director of Hong Kong Centre for Sports Medicine and

Sports Sciences,

Director of Jockey Club Sports Medicine and Health Sciences Centre,

The Chinese University of Hong Kong

	Application of Cutting-Edge Technologies in	
2016	Managing Orthopaedics Problems	
	現代尖端科技於骨科治療的應用	

Professor Zhong Hong Xiu 鍾紅秀教授

Associate Dean, Xiamen Maternal and Child Health Care Hospital, Xiamen

	Prevention and Treatment Strategy of Women	
2016	Cervical Cancer and Breast Cancer	
	婦女子宮頸癌及乳癌的防治策略	

基金會資助的研究中心及頂目報告 Updates of projects / centres sponsored by Dr Stanley Ho Medical Development Foundation

何鴻燊海量數據決策分析研究中心 Stanley Ho Big Data Decision Analytics (BDDA) Research Centre

機構:香港中文大學 The Chinese University of Hong Kong 項目負責人:蒙美玲教授 Professor Helen Meng 聯絡方法 : hmmeng@se.cuhk.edu.hk 網址 : http://www.bdda.cuhk.edu.hk

INTRODUCTION 引言

The Stanley Ho Big Data Decision Analytics Research Centre was established in 2013 with the generous support from the Dr. Stanley Ho Medical Development Foundation. The Centre focuses on the new paradigm of big data decision analytics, targeting knowledge creation and insight extraction from massive datasets using ICT, data mining techniques and operations research methods. The research members of the Centre come from various disciplines, including professors from the Engineering, Medicine, Public Health, Education, Science and Social Science. The diversity of the research team creates an environment to stimulate innovate ideas and enables the Centre to conduct cutting edge interdisciplinary research in areas such as health, environment, learning, logistics and supply chain management, finance and social networks, aiming to achieve societal impact and benefit Hong Kong, Macao, the Greater China region and beyond.

何鴻燊海量數據決策分析研究中心承蒙何鴻燊博士醫療 拓展基金會慷慨捐助,於2013年成立。本研究中心專 注於研究大數据決策分析的創新模式。我們的目標是利 用資訊及通訊科技,數据挖掘,運籌學等技術從海量數 据中洞察,提取及創造知識。中心的研究成員來自多個 不同的學科,包括工程,醫學,公共衛生,教育,科學 和社會科學的教授。跨學科的研究團隊創造了一個激發 創新研究方向的環境,使本中心能夠在公共衛生,環 境,教育,物流和供應鏈管理,金融和社交網絡等領域 開展尖端的跨學科研究,旨在對社會產生影響以惠及香 港,澳門,大中華區及以外地區。

RESEARCH & DEVELOPMENT 研究及發展

Our research covers the domains of health, logistics, eLearning, etc. Our research work on Visual Analytics for Global Trends in Cancer Incidence based on WHO's global cancer data led to a collaboration with IBM, and was featured in IBM's 2015 Corporate Responsibility Report (http://www. ibm.com/ibm/responsibility/2015/communities/health. html) and circulated in over 170 countries). In 2016, this work was further featured as a case study and video on IBM's website (http://ecc.ibm.com/case-study/us-en/ECCF-ASC12423USEN) and also appeared in the December 2016 issue of ComputerWorld (http://bit.ly/2cJ0JnW). In the area of transportation logistics, we are working closely with a major public transportation operator in Hong Kong and have developed a real-time optimization model which utilizes the high-velocity auto-sensed data collected from their vehicle locating system to provide recommendations for the redeployment of drivers and vehicles. This constitutes an efficient disruption management system to enhance both efficiency and effectives for public transit in Hong Kong. On eLearning, our effort started with the CUHK-MIT-Macao Joint Workshop on Big Data and eLearning in 2015. We have set up a locally hosted Open edX system (referred as the bddaX system) and enhanced it with audio indexing and search capabilities that supports multimedia search. With support from the Foundation, we will continue to work closely with MIT in eLearning pedagogical research. We have also been awarded a grant from the HKSAR Government Innovation and Technology Fund Public Sector Trial Scheme to develop an electronic communication book (referred as "E-Commu-Book"), which is a cloud-based assistive tool that supports augmentative and alternative communication (AAC) for patients with communication disorders. We are also pushing other technological frontiers, relating to healthy ageing, environmental monitoring, etc.

本研究中心自成立後,在開發研究,參與澳門的學術活 動,學術交流,培育學生和服務社會等各方面做了大量 的工作。在公共衛生開發研究方面,我們利用來自世界 衛生組織(WHO)的全球癌症數據來繪制癌症趨勢的 視覺化資訊圖表及預測隨著人口老齡化的癌症趨勢。相 關研究工作成為了 IBM YouTube 頻道的視頻,IBM 入門 網站的研究案例及 COMPUTER WORLD 的精選報導。同 時也成為 IBM 企業責任報告中的一個案例,分享到 IBM 全球超過170個國家的分支機構。在交通管理方面, 我們與香港一主要公共交通公司合作,利用大數據和優 化技術應對公共交通受阻的情況,以提昇香港公共交通 的效率和效益。在電子學習方面,我們設置了本地託管 的 edX 教學平台,并新增支持多媒體搜索的音頻索引以 增 其搜索功能。同時,我們亦獲得香港創新及科技支 援計劃 - 公營機構試用計劃的資助,以開發一套輔助患 有溝通障礙的患者溝通的電子書。



2015 CUHK-MIT-Macao Workshop on Big Data and eLearning



Screenshot of the bddaX platform – an ongoing project in developing an eLearning platform enhanced with multimedia search capabilities





using WHO data

A screenshot of the E-Commu-Book, a cloud-based assistive device for subjects with communicative disorders

ACTIVITES IN MACAO 參與澳門的學術活動

Following the CUHK-MIT-Macao Joint Workshop on Big Data and eLearning in 2015, BDDA Director Professor Helen Meng visited with University of Macao and delivered a Distinguished Lecture in January 2016 and her visit was kindly hosted by Vice Rector Professor Lionel Ni. Also, Professor Yong-Hong Kuo was invited to present his work on healthcare management at the 7th Production and Operations Management Society (Hong Kong Chapter) International Conference, held in University of Macao in January 2016.

The IBM Executive Summit took place in Macao on 11 March 2016, and invited Professor Meng to be a Keynote Speaker. Her undergraduate student project, named "Catchup", which is a system that uses wearable devices for personalized public transportation recommendation, was also featured in a demonstration booth at the Summit, and later on IBM's Facebook page.

In addition, our Centre also published and presented 2 papers in the 7th International Conference on Cloud Computing and Big Data held in Macao in November 2016, which are authored with Professors Yong-Hong Kuo and Kelvin Tsoi of BDDA.



CUHK-MIT-Macao Workshop on Big Data and eLearning 2015 involved a discussion among representatives from the three locations, facilitated by the representatives of the Dr. Stanley Ho Medical Foundation and hosted by Macao's Tertiary Education Services Office (Gabinete de Apoio ao Ensino Superior)



IBM Executive Summit in JW Marriot, Macao, March 2016 – on stage for keynote presentation, with Vice President Gill Zhou of IBM Greater China Group



IBM Executive Summit in JW Marriot, Macao, March 2016 – off stage with CUHK undergraduate students invited to demonstrate their Catchup project and Mrs. Mary Law of IBM

在參與澳門的學術活動方面,緊接著在 2015 年舉辦的 中文大學 - 麻省理工 - 澳門大學大數據和電子學習聯 合研討會,本研究中心總監蒙美玲教授於 2016 年 1 月 訪問了澳門大學并主講了一堂傑出學人講座。該講座 由澳門大學學術副校長倪明選教授主持。郭永鴻教授 亦獲邀請到於 2016 年 1 月澳門大學舉行的生產與營運 管理學會(香港分會)國際會議分享醫療管理的研究。 此外,蒙教授獲邀為 2016 年 3 月 11 日於澳門舉辦的 IBM EXECUTIVE SUMMIT 主題演講者。蒙教授的一個關 於應用穿戴裝置為使用者提供交通建議的本科生項目 也獲邀在是次 SUMMIT 的一個展示亭展示,及後并上 載到 IBM 面書專頁。最後,本研究中心的蔡錦輝教授 和郭永鴻教授在 2016 年 11 月於澳門舉辦的第 7 届雲 計算及大數据國際會議分別發表了他們的研究論文。





Poster of the Distinguished Lecture at University of Macaoa

wearable devices for personal transportation recommendation, developed by two CUHK undergraduate students.

ACADEMIC EXCHANGE AND STUDENT ACTIVITIES 促進學術交流及培育學生

The Centre has hosted visits by the Presidents of the University of Rochester, University Essex and Asia University. We have also hosted visits by faculty from MIT, Oxford University, Stanford University, UIUC, Yale, etc. We have organized and co-organized conferences and workshops with important partners including Chinese Academy of Sciences Academy of Mathematics and Systems Science (in 2013), Microsoft Research Asia (in 2013), MIT (in 2015) and National Natural Science Foundation of China (in both 2014 and 2016).

The Center also plays a key role in supporting the selection of CUHK students to participate in the MIT Kickstart Program under MIT Innovation Node in Hong Kong.





Our Centre co-organized in 2014 the Academic Symposium on Big Data with the National Natural Science Foundation of China

Our Centre organized the Joint Research Workshop Chinese Academy of Sciences Academy of Mathematics and Systems Science (2013)

2017 何鴻桑博士醫療拓展基金會醫學研討會 Dr. Stanley Ho Medical Development Foundation Symposium 35 在促進學術交流方面,羅徹斯特大學 (University of Rochester) 校長,艾塞克斯大學 (University Essex) 校長 和亞洲大學校 (Asia University) 長分別到訪本中心。到 訪本中心作學術交流的還包括多所世界知名大學的教授,例如麻省理工學院,牛津大學,斯坦福大學,耶 魯大學等。另外,我們和不同的合作伙伴包辦了多次 的國際學術會議。我們的合作伙伴包括中國科學院數 學與系統科學研究院 (2013),微軟亞洲研究院 (2013), 麻省理工學院 (2015),中國國家自然科學基金委員會 (2014 及 2016)。

另外,本中心在甄選中文大學的學生參與麻省理工香 港創新節點的 MIT Kickstart 計劃扮演重要角色。





Our Centre co-organized in 2016 the Academic Symposium on Big Datadriven Management and Decision Research, together with National Natural Science Foundation and CUHK Faculty of Business

SERVING THE COMMUNITY 回饋社會

- Professor Helen Meng has been appointed by the HKSAR Government's OGCIO (Office of the Chief Information Officer) to serve in the Hong Kong/Guangdong ICT Expert Committee (粤港信息化專家委員會), and is the Coordinator (Hong Kong side) of the working group on Big Data Research, Technologies and Applications.
- Professor Helen Meng has been appointed by the HKSAR Government Secretary for Food and Health to serve in the Steering Committee on Electronic Health Record Sharing
- Professor Kelvin Tsoi was invited to serve as Track Chair of Big Data Research in Healthcare in the IEEE BigData Congress 2015 conference in New York City
- Professor Yong-Hong Kuo serves as Board Member of Hong Kong Society for Transportation Studies (HKSTS) and co-organized the 20th International Conference of HKSTS with the theme of Urban Transport Analytics

在回饋社會方面,本中心研究人員積極參與各項公職, 以自已的專業知識,貢獻社會,包括:

- 蒙美玲教授獲香港政府資訊科技總監辦公室委任,加入粵港信息化專家委員會,成為大數据研究,技術及應用工作小組的港方協調專員。
- 蒙美玲教授獲香港政府食物及衛生局局長委任加入 電子健康紀錄互通督導委員會,推動電子健康紀錄 的發展。
- 蔡錦輝教授獲邀為在紐約舉行的 IEEE 大數據年會 2015 上,担任醫療保健大數據研究的主持人。
- 郭永鴻教授教授是香港運輸學會 (HKSTS) 的董事會 成員,並協辦第二十屆 HKSTS 以城市交通分析為主 題的國際會議。



Professor Kelvin Tsoi of our Centre served as Track Chair of Big Data Research in Healthcare, IEEE Big Data Congress 2015



Professor Yong Hong Kuo of our Centre contributed to the organization of the 20th International Conference of HKSTS with the theme of Urban Transport Analytics

OUTREACH 外展活動

Our Centre's director Professor Helen Meng has been invited to give keynote speeches on such topics as big data and analytics for a smart city, use of technology to democratize learning for a smart city, education in data science, and outthinking cancer using visual analytics in the following venues in 2016 – ASTRI-HPE Conference on Big Data and Analytics for Smart City, Microsoft CityNext Forum of the Hong Kong International IT Fest, IEEE Signal and Data Science Forum and IBM Executive Summit. She was also invited to be panel speaker in the HKSTP APAC Innovation Summit 2016.

In addition, our Centre was also featured in two television (TVB) interviews about big data and cloud-computing based assistive communicative aid – in 「新聞透視:數據 時代」(November 2015) and「時事多面睇:智能安老」 (February 2016).

We have also published an invited article entitled "Hong Kong's Potential in Big Data Analytics", ComputerWorld Hong Kong, September/October 2014 and conducted many newspaper interviews (http://www.bdda.cuhk.edu. hk/press-releases)

我們積極參與各項外展活動,例如出席研討會或者獲邀 為主題演講者,接受電視或傳媒訪問,在技術雜誌上發 表文章等,以推動業界及公眾對大數據研究的認識。





Professor Meng gave the keynote and posed with the organizers and other speakers of the Microsoft CityNext Forum of Hong Kong International IT Fest 2016

Professor Meng was keynote speaker and posed with the organizers of the ASTRI-HPE Conference on Big Data and Analytics for Smart City 2016



Professor Helen Meng was Panel Speaker on artificial intelligence at the HKSTP APAC Innovation Summit 2016 Panel



Television (TVB) Interview, November 2015 on big data analytics

大腦與認知研究所 Brain and Mind Institute

機構:香港中文大學 The Chinese University of Hong Kong 項目負責人:黃俊文教授 Professor Wong Chun Man Patrick 聯絡方法 : Ms. Bo Lin 林博女士 at bolin@cuhk.edu.hk 網址 : http://bmi.cuhk.edu.hk

It is BMI's vision to become a world-leading research institute that makes discoveries in basic mechanisms of complex neurological conditions with the ultimate goal to enhance treatments of these conditions using molecular, cellular, behavioural, and engineering therapies and solutions in order to optimize human development, enhance learning, and improve quality of life.

Our mission includes:

- Conducting cutting-edge, interdisciplinary research to solve complex research problems concerning language, cognition, learning and their neural and neurogenetic underpinnings from molecule to behaviour.
- Solving these complex neurological research problems with strategic research partners nationally and internationally.
- Translating our laboratory findings into clinical and educational practices with community partners.

Our research teams have been working on the following four strategic projects to focus on BMI's four research themes and are making significant progress towards the project goals.

- (i) 'Association between Auditory Neurophysiology and Cognitive and Communication Behaviors in Infants' under the theme Optimizing language learning in early childhood;
- (ii) 'Fragile X Mutation/Premutation and Autism Spectrum Disorder' under the theme Defining the broad autism phenotype in Chinese societies;
- (iii) 'Phonological vs. Working Memory Training: A Behavioral Pilot Study in Normally Reading Chinese Children' under the theme Enhancing treatments for dyslexia; and
- (iv) 'Elucidating the Core Molecular Defects of Autism Spectrum Disorder' under the theme Identifying molecular mechanisms of neurodevelopment and neurodegeneration.

BMI also takes the role of facilitating knowledge exchange between scholars and professionals and promoting international networking. The BMI Seminar Series was launched in 2015 and 15 seminars have been organised so far. Our speakers include CUHK teaching members and invited speakers from Europe and North America. BMI has established collaborations with regional and international partners such as CUHK-PKU-UST Joint Research Centre for Language and Human Complexity and CUHK-UU Joint Centre for Language, Mind and Brain. BMI also collaborates with Macau. The BMI International Symposium on Cognitive and Development Neuroscience: From Molecule to Behaviour was held in Macau to address the Macau public, and clinical and educational professionals in November 2015. Our member Professor Cheung Him of CUHK was also invited to deliver a talk at 2016 International Brain Bee Competition (Macau) Prize Presentation Ceremony & Brain and Mind Lecture Series in June 2016.

In additional to research, BMI actively takes part in public education. It is an important aspect in our activities as we work to raise awareness of brain health and foster the understanding of neuroscience. We collaborate with elderly centres in the community to deliver messages about healthy living and stroke prevention. Public lectures and social groups delivered to date have reached over 1000 older adults in the community. BMI engages not only our seniors but also our juniors. BMI organized one-day event for high school students in order to enrich their knowledge and strengthen their understanding about neuroscience.

In the future, BMI will continue its research which encompasses from molecule to behaviour and examine the causes and therapeutic strategies for different developmental disorders. In particular, the upcoming Stanley Ho Developmental Cohort Study will unveil knowledge about cognitive and brain development unique to young children in a Chinese context. The next BMI International Symposium on Early Language and the Brain will be in April 2017. We wish to bring the different disciplines and partners together to solve some very difficult problems in order to benefit children, learners, older adults, patients, and their families. 大腦與認知研究所 (BMI) 的願景是成為世界領先的研究 機構,透過找出複雜神經系統疾病的基本機制,進而 運用分子、細胞、行為和工程治療和解決方案來改善 這些疾病的治療,以優化人類發展、增強學習,及提 高生活質素。

我們的使命包括:

- 進行尖端跨學科研究,從分子到行為各層面去解決
 與語言、認知和學習相關的神經和神經遺傳學的複
 雜研究問題。
- 與本地及海外策略研究夥伴合作,攜手解決這些複 雜的神經學研究問題。
- 與社區夥伴合作,將研究成果應用於臨床及教育實踐。

我們的研究團隊專注於四個研究主題,一直致力進行 以下四個策略項目,並在各項目中取得重大進展。

- 「優化兒童早期語言學習」主題下的「嬰兒聽覺 神經生理學以及其認知和溝通行為的關係」;
- 二「定義華人社會中的廣泛自閉症表現型」主題下 的「X 染色體易裂症基因突變 / 前突變與自閉症譜 系障礙」;
- 三 「改善閱讀障礙治療」主題下的「語音與工作記 憶訓練:具正常閱讀能力的中國兒童行為先導研 究」;及
- 四 「識別神經發育和神經退化的分子機制」主題下 的「闡明自閉症譜系障礙的核心分子缺陷」。

CLUT

2016 Brain Bee 腦神經科學大賽



認知與發展神經科學國際研討會



與本地長者中心合作

為促進學者和專業人員之間的學術及技術交流,並建 立國際研究網絡,BMI於2015年推出研討會系列,迄 今已舉辦了15場研討會。我們的演講嘉賓包括香港 中文大學的教員和來自歐洲和北美的研究人員。BMI 與本地及海外研究所成功建立合作夥伴關係,當中包 括CUHK-PKU-UST 語言與人類複雜系統聯合研究中心和 CUHK-UU 語言、認知及大腦聯合研究中心。BMI更與 澳門合作,於2015年11月特別為澳門公眾、臨床專 家和教育界人士舉辦了「認知與發展神經科學:從分 子到行為」國際研討會。2016年6月,我們的成員張 謙教授亦獲邀於2016 Brain Bee 腦神經科學大賽澳門區 選拔賽頒獎典禮暨何鴻燊博士醫療拓展基金會 BMI系 列講座擔仟演講嘉賓。

除致力科研外,公共教育亦是 BMI 活動中的一個重要 範疇。我們積極提高公眾對大腦健康的認識及對神經 科學的理解。我們與本地長者中心合作,宣傳健康生 活和預防中風的信息。我們不時舉辦公開講座和小組 活動,受惠人數超過一千人。另外,BMI不單關心長者, 亦照顧我們的年輕一代。BMI 為高中生舉辦了為期一天 的參觀活動,以加深他們對神經科學的理解。

未來,BMI將繼續涉及不同層面的研究工作,檢驗不同 發展障礙的成因和治療方案。即將開展的何鴻燊發展 世代研究會揭示有關幼兒在中文語境中特有的認知和 大腦發展的機制。BMI亦會於2017年4月舉行「早期 語言及大腦」國際研討會。我們冀望與不同學科的夥 伴合作,解決複雜的難題,令兒童、學生、長者、患 者及其家人受惠。



中學生參觀研究所

何鴻燊防治傳染病研究中心 Stanley Ho Centre for Emerging Infectious Diseases

機構:香港中文大學 The Chinese University of Hong Kong 項目負責人:許樹昌教授 Professor Hui Shu Cheong David 聯絡方法 : ceid@med.cuhk.edu.hk 網址 : http://ceid.med.cuhk.edu.hk

INTRODUCTION 簡介

Stanley Ho Centre for Emerging Infectious Diseases (CEID) was formally inaugurated on 16 November 2006. Physically located within the Prince of Wales Hospital compound, CEID is the only academic centre of the Chinese University of Hong Kong (CUHK) devoted to infectious disease research. It aims at generating new knowledge and supporting strategy development in the prevention and control of emerging infections, in Hong Kong and beyond. CEID is equipped with facilities provided at its own core laboratory, lending support to research conducted by the Centre's academics and their research teams.

何鴻燊防治傳染病研究中心(CEID)於2006年11月 16日正式成立,中心設於威爾斯親王醫院內。CEID是 香港中文大學唯一專注傳染病研究的學術中心。成立 目的是在香港境內外透過研究創造新知識,並為新發 傳染病探討預防和控制策略。CEID的核心實驗室配備 了研究所需的設施,為中心的學者及其研究團隊的工 作提供支援。

RESEARCH AND COLLABORATIONS 研究和合作

Currently, the main themes of CEID's research are: coronavirus infections – SARS and MERS (Middle East Respiratory Syndrome), HIV/AIDS and sexually transmitted infections, tuberculosis (TB), enteric infections and infectious disease epidemiology. The areas of expertise include clinical management, epidemiology and molecular analyses.

The Centre has established research collaborations with local, Mainland China and overseas institutions, with activities including academic exchange, joint grant applications, training and joint research projects. Locally, a series of studies have been developed with public hospitals, NGO and professional institutions in medicine, nursing, public health. In 2016, the Memorandum of Understanding (MOU) was renewed between the Centre and Liuzhou Centre for Diseases Control and Prevention of Guangxi Province. A CEID Scholar delivered a lecture on TB to researchers in Liuzhou. Besides, collaborative projects have been developed with universities and CDC in China on the following infections – EV71, HIV and influenza. Since late 2014, researchers of CEID have been collaborating with investigators of Macao University in the use of a zebrafish model for studying drug interactions in HIV treatment and the mechanism of drug resistance in TB treatment. This is an ongoing initiative, which has led to presentations at international scientific conferences, and a manuscript is under preparation.

現時 CEID 研究的主題有: 冠狀病毒感染 — SARS 和 MERS(中東呼吸綜合症),愛滋病毒感染和性傳播疾 病,結核病,腸道感染,以及傳染病流行病學。專業 領域包括臨床治理,流行病學和分子分析。中心與香 港本地,中國內地及海外機構合作,進行學術交流, 共同申請科研撥款,提供培訓及聯合發展研究項目等。 在香港,中心已經與公立醫院,非政府組織和各醫學、 護理、公共衛生專業機構開展一系列研究項目。2016 年,中心與廣西省柳州疾病預防控制中心簽訂諒解備 忘錄(MOU),為柳州市的研究人員開辦結核病的講 座。此外,中心還聯同中國內地的大學和疾病預防控 制中心,合作開展了有關 EV71,HIV 和流感等研究計 劃。自 2014 年底以來,CEID 的研究人員與澳門大學合 作,使用斑馬魚模型研究 HIV 治療所涉藥物相互作用以 及抗結核病治療的耐藥性機制。研究項目仍在進行中, 研究組曾於國際科學會議上發表初步結果,並正在撰 寫論文。



TB lecture at Liuzhou CDC in Oct 2016 2016 年 10 月在柳州市關於結核病的講座

ACADEMIC ACHIEVEMENTS 學術成果

Over the years, researchers of CEID have been awarded research grants, amounting to a total of HKD70 million, largely from competitive grants of Research Grant Council, Health and Medical Research Fund, AIDS Trust Fund, and also as commissioned by the Hong Kong Government.

Publication of research results findings in prestigious scientific journals is one important means of delivering academic outputs in the scientific community. So far, researchers of CEID have published 540 manuscripts, 50 scholarly books/chapters or monographs, and made over 100 conference presentations to share their new knowledge with other specialists and scholars.

Some important outputs in terms of new research findings are:

- Characterization of the clinical outcomes of influenza virus diseases
- New understanding of droplet dispersion and its implications in designing infection control practice in hospital wards

2017何鴻桑博士醫療拓展基金會醫學研討會 Dr. Stanley Ho Medical Development Foundation Symposium

- Discovery of antiviral effects of interferons for EV71 infection
- Novel network analyses for describing HIV epidemiology
- High potential of sexual transmission of hepatitis C virus in the HIV population

多年來,CEID的研究人員成功獲得了不同的研究撥款,總額達700萬港元。資金主要來自香港的研究資助局, 醫療衞生研究基金,愛滋病信託基金會等競爭性撥款, 以及接受香港政府委託項目的撥款。

在重要的科學期刊上發表研究報告是展示學術成果的 重要渠道。到目前為止,CEID研究人員已經發表了540 份文章,50份學術書籍/專著,並發表了100多次會 議演講,與其他專家和學者分享他們的新知識。

以下是部份重要的研究結果:

- 流感疾病的臨床特徵
- 了解液滴分散對設計醫院病房的影響和控制感染的 成效
- 干擾素對 EV71 感染的抗病毒作用
- 用於描述愛滋病毒流行病學的新型網絡分析
- 愛滋病毒感染人群中出現丙型肝炎病毒的高危傳播

MAJOR EVENTS 主要活動

A major highlight of the activities of the Centre is the Annual Scientific Symposium, which is a platform for health professionals and academics to update on knowledge and skills in infectious diseases prevention, treatment options and control. The 2016 symposium attracted over 300 participants from Hong Kong, Macau, Mainland China, as well as overseas. The Postgraduate Student Exchange Session was scheduled on the day preceding the Annual Scientific Symposium, providing a forum for postgraduate students to present and discuss their research. In Nov 2016, the 2nd ICGEB Workshop on Human papillomavirus: From Basic Biology to Cancer Prevention was organized under the co-ordination of Centre, with the participation of over 140 scientists from 12 countries in Asia and internationally.

年度科學研討會是中心舉辦的一個主要活動,透過此 平台讓專業人員和學者更新對預防傳染病的知識,並 且提升疾病控制和治療的能力。2016年的研討會吸引 了來自香港,澳門,中國大陸和海外的300多名參會 者。在研討會前一天,大會安排研究生參與交流會, 為年青學者提供討論平台。2016年11月,中心協辦了 第二屆 ICGEB 人類乳頭瘤病毒研討會,來自亞洲和國 際12 個國家的140多名科學家出席了會議。





Postgraduate Student Exchange Session in June 2016 2016 年 6 月研究生交流會

CEID Annual Scientific Meeting 2016 2016 年度的科學研討會

EDUCATION 教育

As the hub of infectious disease expertise for CUHK, CEID has been delivering teaching to medical undergraduates and research postgraduates. Over the past decade, totally 22 research postgraduate students have graduated with PhD or MPhil under the supervision of CEID's academic staff. In 2016, the Centre's postgraduate student won the Best PhD Thesis Award of the Public Health Division of the Graduate School. In 2007 and 2013, an HIV Manual was published for the reference of medical undergraduates and also clinical doctors. Free Apps in iOS and Android are available for downloads. A total of 6000 installs have been made by readers so far. To offer a textbook for public health students, "Public Health infectious disease" was released by CEID. Parallel Apps versions have become available in mid-2016.

作為中大傳染病專業知識的樞紐,CEID 一直為醫學本 科生和研究生提供教學。在過去十年,共有 22 名研 究生在 CEID 的學者監督下取得博士或碩士資格。2016 年,中心一名研究生贏得中文大學公共衛生範圍的最 佳博士論文獎。2007 年和 2013 年,中心出版了一本 « 愛滋病手冊 » 供醫科生和臨床醫生參考,手冊有 iOS 和 Android 的免費應用程式可供下載。到目前為止,總共 錄得 6000 次安裝。另外,CEID 在 2012 年推出了 « 公 共衛生傳染病 » 作為公共衛生學生的教科書,應用程 式版本也於 2016 年面世。

PERSPECTIVES 遠景

- With the generous support of Dr. Stanley Ho Medical Development Foundation, CEID is planning to expand the scope of its research to the following areas:
- Genomic research and bioinformatics in infectious diseases
- Establishment of a cohort of newly diagnosed HIV infections
- Time-space modelling in infectious disease epidemiology

在何鴻燊博士醫療拓展基金會的大力支持下,CEID 計 劃將其研究範圍擴展到以下領域:

- 傳染病基因組和生物信息學研究
- 建立新診斷愛滋病毒感染者的群組研究
- 探討傳染病流行病學中的時空模式

頭頸部腫瘤偵測與治療的生物標誌物研究 Developing biomarkers in head and neck squamous cell carcinoma

機構:香港中文大學 The Chinese University of Hong Kong 項目負責人:陳英權教授 Professor Jason Y K Chan 聯絡方法 : jasonchan@ent.cuhk.edu.hk

Through the support of the Dr. Stanley Ho Medical Development Foundation we have been able to initiate and develop a comprehensive Head and Neck cancer tumour bank for research purposes that includes patients from Macau that visit our institution for treatment. This has been achieved through the collection of samples from multiple centres throughout Hong Kong, including the Prince of Wales Hospital, Alice Nethersole Ho Miu Ling Hospital, United Christian Hospital and Tsang Kwan O Hospital and the employment of new staff to collect samples and follow-up on patients. Currently, over the course of the year we have managed to collect ~50 paired tumour head and neck cancer samples, tumour margins, with oral rinses and plasma pre-treatment and on followup. Of note, >90% of patients have follow-up oral rinses and plasma samples collected at 4 weeks, 3 months, 6 months and 12 months after treatment, a feat that puts our sample collection in a unique position for important research into disease surveillance. In addition, we have also collected ~20 normal patient samples.

All of this, in conjunction and with the support of the Department of Chemical Pathology at The Chinese University of Hong Kong, we have been able to start analysing Tumour Suppressor Gene (TSG) methylation in our samples. At this juncture we have chosen 7 known hypermethylated TSG in the literature including EDNRB, CDKN2A, PAX5, DCC, DAPK, TIMP3 and MGMT to analyse and are in the process of analysing these samples with digital droplet PCR, Figure 1 shows the early results of methylation of TSG of head and neck cancer samples. The results are promising for PAX5 and EDNRB hypermethylation in our head and neck cancer population. In addition, we are in the progress of analysing pretreatment and 4 weeks post treatment oral rinses for head and neck cancer patients with the results shown in figure 2. The results show a significant decrease in the presence of hypermethylated PAX5 TSG in oral rinse following treatment for head and neck cancer. The sensitivity and specificity of PAX5 in the detection of head and neck cancer was found to be 91.7% and 75% respectively.







Figure 2. PAX5 methylation in oral rinses pre-treatment and 4 weeks following treatment for head and neck cancer.

Overall, the results from the early stages of this study are encouraging, but there are multiple more specimens to analyse including tumour margins, plasma and further follow-up oral rinses, while we continue to collect samples. The importance of this research is highlighted by the lack of biomarkers in head and neck cancer, in particular the lack of research in head and neck cancer in our region, for a disease that is increasingly important, and now the 10th most common cancer amongst men in Hong Kong based on data from the Hong Kong Cancer Registry 2014 data. To conclude, none of the above would have been possible to initiate and maintain in the future without the generous support of the Dr Stanley Ho Medical Foundation to improve the management of head and neck cancer patients in the region.

澳門失智症協會 Macau Alzheimer's Disease Association

機構:澳門失智症協會 Macau Alzheimer's Disease Association 項目負責人: 禤永明 會長 聯絡方法 : 曾文理事長 zengwen@kwnc.edu.mo 網址 : http://www.mada.org.mo

Macau Alzheimer's Disease Association (hereinafter referred to as MADA) was established in 2010 by Mr. Patrick Huen Wing Ming, the Chairman of Dr. Stanley Ho Medical Development Foundation and several professors of Kiang Wu Nursing College of Macau. Other experts who are concerned about the ageing population from medical, nursing, education, social service, law, and nursing home also contributed to the establishment of MADA.

MADA became a full member of Alzheimer's Disease International in 2013.

The objectives of MADA are:

- (1) Cultivate public's awareness and positive attitude about dementia;
- (2) Promote early detection which allows dementia patients to have timely care;
- (3) Provide related knowledge and care plan to professionals from different disciplines.

MADA is now carrying out the following missions:

- 1. Raising public's awareness and enhance their understanding about dementia. MADA provides professional and academic support to "Benevolence Lights up my Later Life: A Tailored Meta-programme to Face with Ageing Population in Macau", which is conducted by Kiang Wu Nursing College. Many directors serve as keynote speakers in public lectures and workshop for care-givers.
- 2. Promoting early detection which allows dementia patients to have timely care. Kiang Wu Nursing College of Macau founded the Memory Clinic in 2013, in an effort to provide cognitive assessment for senior citizens and dementia helpline service. These two services had resulted in positive social benefits. Starting from this year, MADA will cooperate with Kiang Wu Nursing College of Macau and Dr. Stanley Ho Medical Development Foundation to enhance the Memory Clinic. On top of the existing assessment services, assessors will be dispatched to three elderly homes on a weekly basis to provide cognitive competence screening for older persons.
- 3. Multi-professional cooperation which reinforces the cultivation of local professionals. To coordinate with the governmental policy about dementia prevention and treatment, MADA, Hong Kong Alzheimer's Disease Association and Kiang Wu Nursing College of Macau will collaboratively organize the Certified Dementia Care Planner (CDCP) Course, which is a structured and systematic certificate programme specifically designed for dementia care professionals. The teaching contents

cover fundamental knowledge about dementia, early screening and assessment, design of rehabilitation training for patient, care management and support to patient's family. Upon the completion of this course, students will be able to discern patients of early stage dementia and provide the patients and their families with professional consultation service and technical guidance regarding care management.

澳門失智症協會由何鴻燊博士醫療拓展基金會主席 永明先生與澳門鏡湖護理學院幾位教授,聯同一群關 注社會老齡化、熱心長者照護工作的醫務界、護理界、 教育界、社會服務界、法律界、老人院舍負責人等專 家學者,於2010年成立「澳門失智症協會」。本會宗 旨為:(一)培養公眾對失智症的正確認識和正面態度, 積極防治此疾病;(二)推廣早期檢測,使失智症患 者得到適時照顧;(三)提供有關知識及照顧計劃予 各界專業人士。目前主要工作有:

- 提高公眾對失智症的認識和了解。協會提供澳門鏡 湖護理學院「仁·愛晚晴」應對老齡化社會教育 系統工程:老人失智症之預防及照顧的專業與學術 支援,並擔任公眾講座主講嘉賓及腦力大使\青年 大使的指導老師。
- 推廣早期檢測,使失智症患者得到適時照顧。澳門 鏡湖護護學院於 2013 年建立記憶中心,為本澳居 民免費提供長者認知能力評估及失智症電話熱線服 務,該兩項服務均取得良好的社會效益。今年起, 協會將聯合澳門鏡湖護護學院及何鴻燊博士醫療拓 展基金會三方共同加強記憶中心的建設。在原有評 估的基礎上,每週定期派評估人員到三間老人中心 為長者提供認知能力篩查。
- 多專業跨職系合作,加強本地專業人員的培養。為 配合特區政府失智症防治政策,將于 2017 年與香 港認知障礙症協會及澳門鏡湖護理學院合辦失智症 照顧策劃師課程,該課程是專門為失智症照顧護理 專業人士設計的結構性、系統性證書課程,內容涵 括失智症基本知識、疾病的早期篩查及評估、失智 症患者康復訓練的設計、照顧管理及家屬的支援。 完成該課程後,學員能有效識別早期失智症患者, 並能準確地為失智症長者及家人提供照顧管理方面 的諮詢及技術指導。

個體化醫療中心 Centre for Personalised Medicine



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高端機器人科研計劃 Advanced Robotics Initiatives

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Background

The Foundation's foresight in supporting medical and surgical robotics shows tremendous commitment from the community in tackling health problems and enhancing the quality of living for the aged and the sick.

Robotics research and medical applications

Dr. Ka-Wai Kwok from Department of Mechanical Engineering has formed a research group for Interventional Imaging and Robotic Systems (IRIS) for training young talents on innovative technologies for medical applications. The IRIS group, comprising 4 postdoc, 1 research assistant, 5 MPhil and 4 PhD students, has initiated new lines of studies at HKU including soft robotics, image-guided robotic system, and high-performance intra-operative image processing.

Their research bridges the technical gap between medical imaging and surgical robotic control aiming at enhancing surgical precision, safety and effectiveness. Their new system being developed can provide high-quality visual feedback for robotic instruments to navigate inside a patient body. With the support from the Foundation, the IRIS group has gained good laboratory-based experimental results and is now able to work with industrial partners.

Dr. Zheng Wang has opened another promising front of robotics in clinical applications. He is currently supervising the Bionics and Control Lab in the Department of Mechanical Engineering. His group has focused on soft robotic devices with a primary target application into the medical field.

The Lab has collaborated with the Department of Orthopedics and Traumatology of HKU in developing a soft robotic glove for use by patients with hand dysfunctions. The robotic glove comprises of one left hand unit and one right hand unit, both driven by ten actuators, enabling opening and closing motions on each individual fingers. Made by 3D-printed soft material, the gloves impose minimum interference to the wearer's normal daily activities so that they could be worn both in clinic and at home. The actuation mechanisms of the robotic gloves are integrated into a portable box, with the power source, actuation units, as well as the control electronics.

The B&C Lab has also collaborated with the Faculty of Dentistry in developing a surgical robotic manipulator for dental applications. The highly dexterous 7-degreesof-freedom robotic arm packs human-arm dexterity into a 6mm diameter slim body. It could reach any location and orientation within a space over 50 times of its own volume. The arm is driven by 14 electric motors controlled coordinately by one central motion controller also developed in our lab.

The targeted application of this robotic arm is to conduct dental preparation and treatment with a high level of autonomy. In the future, the arm could also be extended for use in general surgical applications, such as laparoscopic surgery, and even endoscopic surgery. Cooperation of two or three arms under more complex control algorithms will enable the robotic system to perform surgical procedures of a higher level of complexity.

Robotic competitions for engineering students

There is no better education than facing the challenge head-on. Two teams of students took part in international robotics challenges this year:- Surgical Robot Challenge and DJI Developer Challenge.

Surgical Robot Challenge

A team comprising 6 students, 1 postdoc and 1 cardiologist was sent by HKU to compete in the Surgical Robot Challenge held in UK in June 2016. They strived into the final round and staged with strong teams like UC Berkeley, Imperial College London, Vanderbilt University, The Hospital for Sick Children, and Israel Institute of Technology (Technion). All teams had to demonstrate their robot prototypes in front of the general public, surgical roboticists and a panel of 10 judges who were experts in academia and healthcare industries.

The system designed by the Team-HKU was a catheter robot capable of operating inside the magnetic resonance imaging (MRI) scanner and run with the left-atrial phantom simulator. The whole prototype earned the "Best Live Demonstration Prize" of the Challenge. The Team was fuelled with great enthusiasm by the recognition.

DJI Developer Challenge

Another team of five engineering students formed TeamHKU and attempted the DJI Developer Challenge since January 2016. The game was a search and rescue one requiring the contestants to code a drone to take off from a moving vehicle, survey a "search area" for objects identified as survivors, avoid obstacles and return to the vehicle.

TeamHKU struggled to the second around and among the 15 finalists. The competition was fierce and quickly lifted the "track-and-locate" technology to a new height. Though it seems remote, such generic technology would shed new light on the imaging and targeting application in clinical research.

背景

基金會大力支持內、外科醫療機器人技術發展的遠見 足見其致力解決老年人和病患者健康問題及提高該人 群生活素質的決心。

機械人研究與醫學應用

機械工程學系的郭嘉威博士帶領著他的研究團隊,發展醫學用的新機械人設備及技術,同時間又積極培養科研人才。這個名為IRIS的團隊共有4位博士後同事、 1位研究助理、5名碩士生及4名博士生,陣容龐大。 所開展的研究範圍包括軟性機械人、影像導引機械人 系統及高效體內影像處理系統。

該項研究彌補了醫學成像與外科手術機械手操控之間 的技術差距,大大增加了外科手術的準確度、安全性 及有效性。他們所發展的新設備可以提供高質素的畫 面,讓機械手可以清楚地安全地在病人體內移動至預 定目標。現在研究隊已取得一定的實驗數據,吸引到 業界的注意,共同開發項目。

另一方面,同系的王 博士亦於機器人技術臨床應用方 面打開了一個新局面。他成立了一個研究團隊,名為 仿生及控制實驗室 (Bionics and Control Laboratory),專 注於發展軟性機械人設備以用於醫療範疇。他的團隊 與校內醫學院的矯型及創傷外科學系合作,為手部失 去活動能力的病人發展一雙由軟性物料造的手套。這 對手套分左右各一隻,由10個驅動器帶動,令每隻手 指均可做出開合動作。手套是用軟性材料經 3D 技術打 印製造,能把佩戴者因佩戴該手套而對日常生活帶來 的不便減至最低,因此該手套在診所或家居均可佩帶。 整套設計包含手套、電源、驅動配件及控制電路,可 放在一個便攜的小箱中。

與此同時,王博士亦與校內的牙醫學院合作,發展一支牙科手術用的操縱桿。這支操縱捍極其靈活,自由 度達至7,但直徑只有6mm。它可以任何角度延伸至 50倍於其自身體積的空間。這支操縱捍由14個電動 馬達推動由1個中央動作控制器管理及協調。該控制 器也是於仿生及控制實驗室成功研發。

王博士期望該操控杆可在牙科治療及準備方面自主操 作。展望將來,這項設計可以進一步應用於其他手術, 例如腹腔鏡及內窺鏡檢查手術。如果用上二至三支機 械臂及更精密的控制運算,這項機械裝置更可以用於 複雜的外科手術中。

機械人比賽

今年港大工程學院派出 2 支隊伍參加了國際比賽,其 中之一是外科機械人大賽 (Surgical Robot Challenge)及 大彊開發者大賽 (DJI Developer Challenge)。

外科機械人大賽於2016年6月底英國倫敦舉行,港大隊由6名學生、1位博士後同事、郭嘉威博士及中大 醫學院的心臟科李沛威醫生組成。除了港大隊外,其 他隊伍有加州大學柏克萊分校、倫敦帝國學院、范德 堡大學、加拿大多倫多病童醫院及以色列理工學院等 強隊。參賽隊伍必需展示並向參觀的市民、外科機械 專家及評判團解釋整個設計的構造和功能。評判團當 中不乏學者及衛生保健行業的專家。 港大隊的參賽作品是一套可以在磁共振掃描儀內操作 的心導管系統,由模擬器控制。整套設計最後贏得全 場最佳現場示範,港大隊為此感到莫大鼓舞。

大彊開發者大賽

另一港大隊由 5 位學生組成,參加大彊開發者大賽。 比賽分多個階段,由 2016 年 1 月開始,最後出線的 10 隊可以出戰 2016 年 8 月底在美國加州舊金山舉行的決 賽。比賽規則是用 DJI 在市面上出售的無人機,以其專 用開發軟件,控制無人機從車上起飛、巡邏、搜救生 還者、迴避障礙物及最後返回那輛車上安全降落。

港大隊雖然在第二回合 15 強中止步,但同學們從在這 7 個多月的努力中 獲益良多。是項比賽亦大大提高了 「追蹤及鎖定」技術,對於將來成像及鎖定技術應用 於臨床醫學研究不無裨益。



師生參與比賽和成果演示

基金會發展藍圖 Development Plan to Elevate the Healthcare Standard of Macau and the Pearl River Delta



In order to proceed further towards achieving the mission of the Foundation to <u>elevate the healthcare</u> <u>standard of Macau and the PRD</u>, we have devised a development plan aiming to create a 'liaison office' to link up the medical practitioners and the general public in Macau with worldwide access points for knowledge and resources on related areas.

We envision that the concept of creating this 'liaison office' would best be realized through a webbased digital platform. Currently, we are working closely with worldwide technological experts including Microsoft and IBM which will guide us through the process of selecting and building the most suitable data warehouse for medical practitioners and general public to get access to most updated information they need efficiently.

為朝著基金會提升<u>澳門和珠江三角洲醫療水平</u>的使命向前邁進,我們建構了一個以此為目標 的發展方略。我們期望透過建立一個聯絡樞紐,把來自世界各地相關的知識和資源,轉介給 澳門的醫護人員及市民大眾。

要實現這個概念,我們認為最佳的方法是建立一個網上數碼平台。目前,我們正與全球頂尖的科技專家(包括 Microsoft 和 IBM)共同相討,從而挑選和構建最合適的數據庫,使澳門的醫護人員及市民大眾能快捷地獲取他們所需要的醫療資訊。

NOTES

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