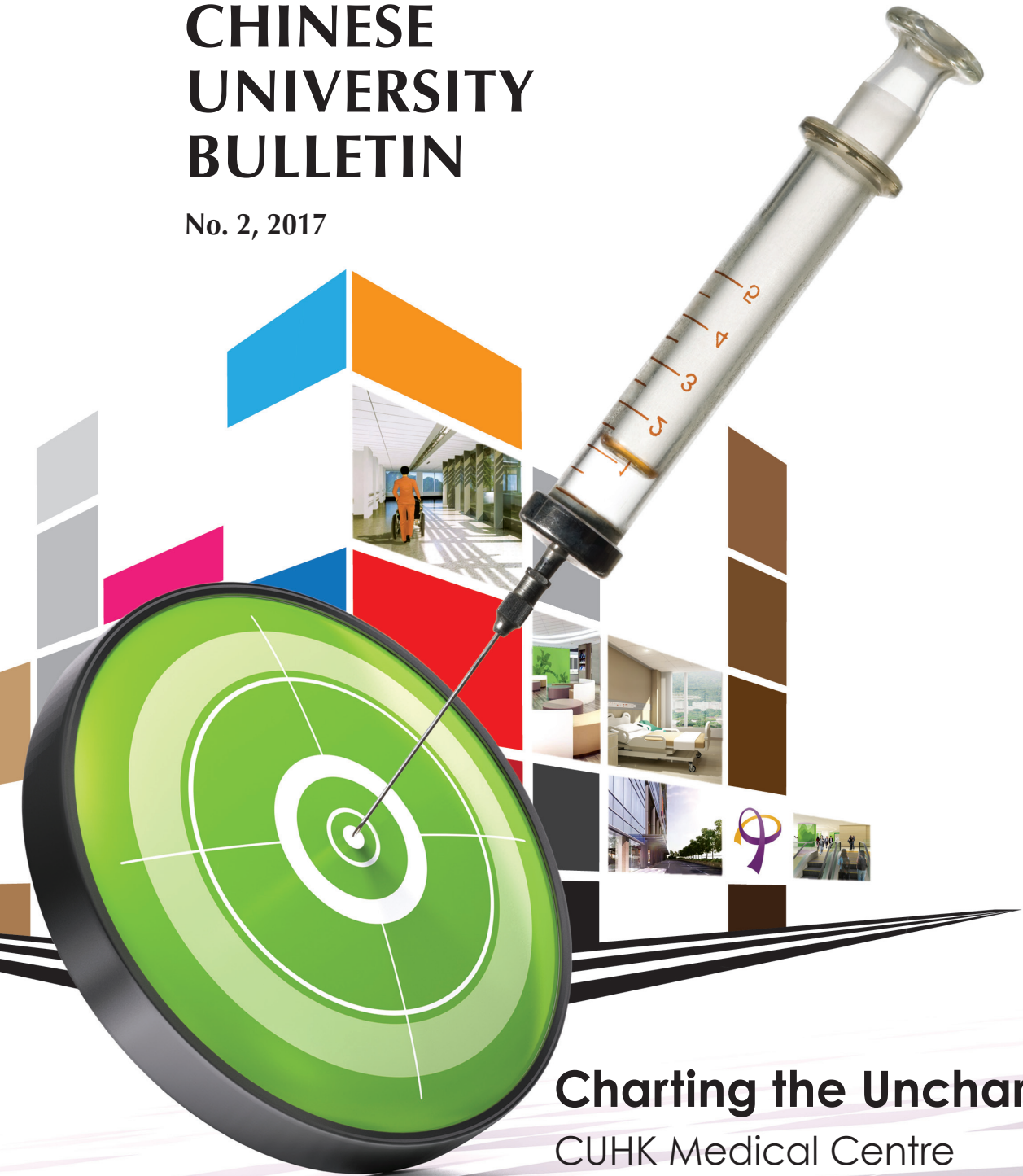


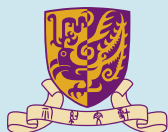
# CHINESE UNIVERSITY BULLETIN

No. 2, 2017



**Charting the Uncharted**  
CUHK Medical Centre





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## Contents

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- 2  **Charting the Uncharted**
- 4 A Poise Between the Public and the Private
- 10 A Small but Smart Hospital
- 12 A Progress Report from Dr. Fung Hong
- 16 The Curtain is Rising
- 18  **Farewell to Professor Joseph Sung**
- 20  **The 83rd and 84th Congregations**
- 24  **In Memory of Professor Ma Lin**
- 26  **Two CUHK Scholars Receive UGC Award for Teaching Excellence**
- 28  **The Brand New FinTech Programme**
- 30  **Master of C.W. Chu College  
Prof. Chan Wai-ye**
- 32  **Director of Art Museum on Finding Artefacts in Serendipity**
- 34 **Fresh Faces**
- 35 **The Best and the Brightest**
- 36 **News in Brief**
- 36 Appointments
- 38 Honours and Recognition
- 40 Research
- 42 Activities and Events
- 44 Intellectual Cross-currents



'Uncharted'  
By Ferdi Rizkiyanto





# Charting the Uncharted

The Patient Protection and Affordable Care Act, commonly called Obamacare, aimed at achieving universal health insurance for the American people. When the Act was debated before the US Supreme Court in March 2012, the late Justice Antonin Scalia asked whether or not the American people should be mandated to buy broccoli as well, that is, if health insurance was thought to be as essential as food.

Justice Scalia's question may be rhetorical but it has highlighted how essential health care is to an aging population facing all kinds of health issues on one hand and ever-escalating medical costs on the other.

In Hong Kong, a public healthcare system runs in parallel with a private one providing an eclectic combination of services to the general populace, balancing various health needs, developing medical technology and scarce resources, precariously at times. The quality of service is on the whole comparable to that in advanced economies, but so are the challenges.

The CUHK Medical Centre aspires to be a patient-centred non-profit private hospital. The feature story in this issue of the *CUHK Bulletin* charts its development from conception to gradually taking shape in an uncharted landscape.

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# A Poise Between the **Public** and the **Private**

The establishing of the CUHK Medical Centre (CUHKMC), a non-profit private hospital, was announced in August 2014. How should one understand the concept of a 'non-profit private hospital'? Of the 12 private hospitals in Hong Kong, 10 are registered as charitable organizations with tax-exempt status. But private hospitals are commonly viewed as expensive and highly profitable. In what ways is the future CUHKMC a non-profit private hospital?

Dr. **Fung Hong**, CEO of CUHKMC, looks at it in three ways. First, there has long been a chasm between public and private healthcare services in Hong Kong. Low fees and high demand for services result in long queues at public hospitals. Treatment of patients becomes a drawn-out process. Dr. Fung said, 'With an aging population and the emergence of more chronic diseases, the pressure on the public system is forever mounting. On the other hand, in the private market the operation and service culture of the hospitals are to a large extent driven by profit considerations. With escalating costs, private hospitals' charges have been increasing by more than 10% p.a., taking their services out of reach of most people. We discussed with the government if a middle ground might be found where financial discipline would keep the prices within reasonable bounds. The middle-income class may enjoy the services either by paying for them out of their own pocket or through the medical packages provided by their employers. It is hoped that some steam may be let off the public system, too.'

CUHKMC will be a teaching hospital of CUHK. But the Prince of Wales Hospital (PWH) has served that role since its establishment in 1984. How will the two hospitals work together in future?









Site chosen for CUHK Medical Centre

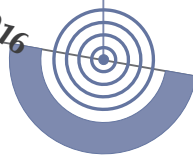


Donation of HK\$1.3 billion made by Hong Kong Jockey Club for CUHK Medical Centre

2014



2016



Ground Breaking Ceremony

CUHK Medical Centre and Hong Kong Baptist Hospital sign MOU on training enrolled nurses for the Centre

2017







Dr. Fung affirmed the contributions of PWH in the past 30 years in propelling CUHK's Faculty of Medicine into a world-class institution today: 'PWH's role as a teaching and research hub is irreplaceable, as much fundamental research is still to be carried out in the public system. A publicly funded hospital necessarily faces many constraints. Prudence must be exercised, for example, in investing in state-of-the-art technology. But overseas examples have shown that private hospitals have much more room to manoeuvre in terms of developing cutting-edge medical technology, particularly in translational medicine. To some extent we can build a new platform of teaching and research in parallel with PWH's. Our edge lies in some promising areas of research and applications that make use of, for example, data analytics or even AI. Our priorities are of course to complement and support the training in the Faculty of Medicine, the School of Chinese Medicine, the Nursing School and the School of Pharmacy.' According to the understanding between the University and the government, any profit recorded by CUHKMC shall be used for the development of the hospital or the Medical Faculty's teaching and research.

The mission statement of CUHKMC is 'Pioneering Solutions in Healthcare'. It means it is truly patient-based and provides a one-stop answer to the patients' dilemmas. You do not need to solicit doctors' referrals to get admitted. You can be assured that the medical procedure recommended or performed is both necessary and unmotivated by profit. Dr. Fung said, 'We will inspire confidence in the public, because any procedure recommended or performed is only recommended or performed with the patients' well-being in mind. Further, we will help raise patients' awareness of how to live healthily and stay away from disease, even though treating patients is our main source of income.'

At present, the majority of the medical practitioners who work at private hospitals are either independent contractors or associates of different medical groups. A patient needs a referral from them for admission into a hospital. To ensure that the medical team at CUHKMC share the same mission and value, Dr. Fung hopes that at least half of the doctors at CUHKMC will be its employees. It would go a long way to keeping the hassles of hospitalization to a minimum.



From government consultations on the regulation of private hospitals and from private surveys, the prohibitive costs of private hospitals are always seen as a problem that is badly in need of a solution.

2020



Service to commence  
by the second quarter  
of 2020



CUHKMC may help find a solution in two ways—by fee transparency and a fixed-charge system. Consumers can get neither a clear nor a full picture of the itemized charges of a private hospital even if they are tabulated and heavily footnoted. To address this, CUHKMC will have a simple system so that patients can see at a glance what fees are charged for what procedures. But Dr. Fung pointed out that there might be some inherent risks in certain procedures that cannot be predicted or assessed in advance. Such risks, such as the need for post-operation blood transfusion, will be taken into account when fixing the charges. Others, such as a heart attack after an operation which is an entirely separate clinical situation, are harder to handle this way. CUHKMC will study carefully where and how to draw the line.

Even the middle class would feel the crunch of a private hospital bill and often rely on insurance coverage. Some countries adopt a comprehensive healthcare system based on society-wide contributions. The government's proposed healthcare reforms have so far received little support. The public appeared not very receptive to mandatory contributions. CUHKMC has been exploring the feasibility of encouraging the market to accept

insurance products that are based on transparent pricing so that medical services become affordable to more. Dr. Fung was of the view that the government's Voluntary Health Insurance Scheme would work very well with CUHKMC's transparent charging system to offer a more accessible healthcare system.

Since taking up the appointment, Dr. Fung has visited different hospitals and medical institutions in Australia, the US, Canada, Singapore, South Korea, Taiwan and mainland China. Mr. **Chien Lee**, Chairman of the Board of Directors of CUHKMC, is a member of the board of Stanford Health Care who is also familiar with the university hospital of the University of California, San Francisco. Dr. Fung and Mr. Lee paid special attention to how the design and operation of these two top institutions in the US drive their service quality and business development. Of particular interest is the word-renowned Mayo Clinic, whose mission statement is 'Patients First'. Through clinical services, education and research, the Mayo team has been providing a one-stop service to patients, causing minimum disruption to their lives, and has achieved great results in complicated medical problems. It is an example CUHKMC can turn to while deriving its own model.



Mr. Chien Lee (5th left), Dr. Fung Hong (6th left), Prof. Justin C.Y. Wu (5th right) and CUHKMC staff visiting Stanford Hospital and Clinics



Every country in the world is constantly reforming its healthcare system. There is no holy grail, however, as everything—socio-economic structure, demographics, technology—is in perpetual flux. Any system would have to adapt to changes or even to anticipate changes. Will CUHKMC alter the local healthcare landscape? Dr. Fung believes not. New problems will keep emerging. He said, 'What a single establishment like CUHKMC can do is not much. But we hope to carve out a niche in the system and maybe point to a new direction. What counts is that we offer a choice.'

### Ward Design

- Colour scheme for different areas
- Optimization of space
- Greater privacy



### Healing Environment

- Natural daylight
- Warm and comfortable
- Healthy workplace



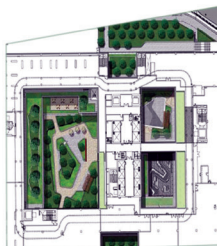
### Environmental Friendly

- Sustainable materials
- Energy efficient light sensors
- Solar hot water panels



### Green Landscape

- Countyard gardens
- Zen garden
- Balcony



### Location

Conveniently located next to the MTR University Station and the public transport interchange





# A Small but **Smart** Hospital



Not only will the CUHK Medical Centre be a pioneer in a new operation model for hospitals but it will also be a precursor in the extensive utilization of advanced information and communications technology (ICT) as the first fully digitalized smart hospital in Hong Kong.

The smartness of CUHKMC is made possible by the employment of, first, a fully electronic and paperless medical record system; second, mobile ICT and real-time data to support and facilitate the patient treatment process enabling closer communication between the patients and the medical personnel; third, the Internet of Things (IoT) to enhance the efficiency of hospital operations and services.

## One-stop Mobile Platform

In conjunction with the application of mobile ICT, CUHKMC plans to set up an integrated mobile system which enables the patients to make appointments, register, handle payments, check personal medical records, communicate with healthcare professionals and search for hospital directions at a one-stop service platform. Instead of finding themselves in a maze, future CUHKMC patients will no longer need multiple referrals and enquiries to reach their doctors and contact the nurses who take care of them. They will be able to manage at ease their own health through access to their own medical records.

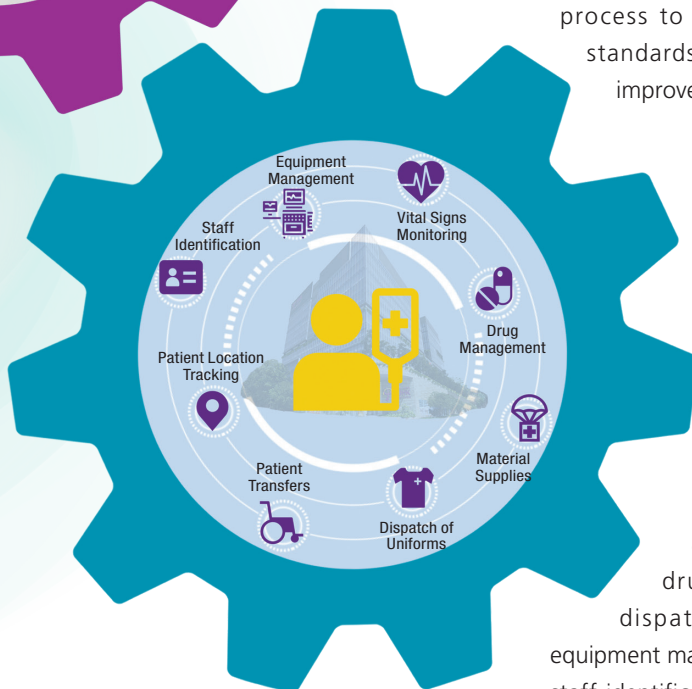
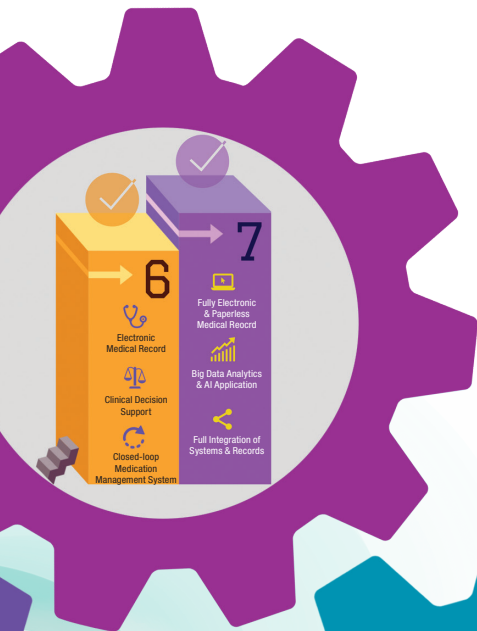




## Medical Record Fully Digitized

The designing of the electronic medical record system at CUHKMC will make reference to the experiences of the Hospital Authority and the best practice of international healthcare IT such as stages 6 & 7 standards of the Healthcare Information and Management System Society's (HIMSS) Electronic Medical Record Adoption Model (EMRAM). The fully electronic and paperless medical record system will cover all care and treatment processes, including nursing records, treatment workflows and clinical decision support. It will also integrate with the Government's Electronic Health Record Sharing System (eHRSS).

As part of the development of a fully electronic medical record system, CUHKMC will establish closed-loop systems for the high-risk or critical medical procedures such as drug management, blood transfusion and pathology investigation. These systems will provide real-time information to healthcare professionals, and monitor each key step in the treatment process to ensure full compliance with safety standards, minimize the window of risks and improve the treatment outcomes.



## The Loop of Things

CUHKMC will use the IoT technology to improve efficiency. Through deploying Wi-Fi network, radio-frequency identification (RFID) and bluetooth technologies in different areas such as vital signs monitoring, drug management, material supplies, dispatch of uniforms, patient transfers, equipment management, patient location tracking and staff identification, the hospital operation workflows can be automated to reduce errors and to bring the healthcare professionals and their patients into the same loop of communication, so that the physical and mental needs of the patients can be more effectively and comprehensively attended to.

# A Progress Report from **Dr. Fung Hong**







### **Can you please tell us about the progress of the CUHK Medical Centre (CUHKMC)?**

Construction work has been progressing well. All piling works for the building structure and retaining walls have been completed. Pile loading tests and pile capping are underway. After foundation work is completed, work will begin for the upper floors. Building runs in parallel with design. The contractors, architects and engineers work together to hammer out the details at every stage of construction. When completed, there will be 14 floors with around 2,500 rooms in the CUHKMC catering to the many different functions and facilities in a modern hospital—operating theatres, maternity rooms, patient wards, a day surgery centre, chemo and radiotherapy clinics and an integrated outpatient clinic, etc.—all equipped and fitted out to their specialized requirements.

### **What’s special about the architectural design?**

Academic staff from the Faculty of Medicine and medical staff from the Prince of Wales Hospital (PWH) were invited to take part in the planning. A hospital is a unique and highly specialized piece of architecture. Specifications for the ventilation system, for example, have been both detailed and precise since SARS. The greatest challenge in planning is, however, the need to keep up with rapid development and changes so that the facilities will still be state-of-the-art when the building is completed. An overall purchasing strategy and timetables are of paramount importance.

The overall design concept is to provide conveniences to people of all ages and physical conditions, with the execution closely dovetailed into the treatment process so that patients would not feel disoriented upon admission and staff can better carry out their work. We put our minds into the design of hardware and computer software, as well as the communication

system to save energy by digital and paperless means. We also aim to provide a healthy workplace to our staff and will turn half a floor into an open courtyard where they can take a refreshing break.

### **How is the progress of recruiting medical and administrative staff?**

We’ve been recruiting all along. A hospital needs many experienced and expert hands. Besides, this is the first business operation of the University on such a large scale, and one that is so different from PWH which is under the Hospital Authority. It’s crucial to have an operating model and a marketing strategy. Fortunately, the University Council has invited many people of great experience and vision to join the Board of Directors to take a firm lead of the project.

### **What made you take up the challenges of CUHKMC’s first executive director?**

From a medical student to a practitioner, I have always wanted to find ways to better medical services by reforming the system. It is because I believe that devising a good system will exponentially multiply the benefits to the patients. I started out as a surgeon. In 1989 I joined the then Hospital Services Department. Soon after I joined the newly established Hospital Authority responsible for the development of medical services and hospital planning. My job included choosing districts for new hospitals and building clinical information systems. In 2002, I was appointed director of the New Territories East Cluster and executive director of PWH. I made the switch because I wanted to enhance the services of the public hospital system with institutional and systemic changes. Another decade passed and I came to another point where another problem and another opportunity were presented me. The CUHKMC project gives me the chance to continue on this journey of exploring a new model to perfect the healthcare system.

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## How do you understand what the public need medically?

Public health studies rely very much on demographic and socio-economic data. But I have learned that paying attention to what patients say is more important. A medical professor may know everything about a sickness but not necessarily what problems the sick face. We're beginning to collect patients' stories systematically. Prof. **Justin C.Y. Wu** and I are targeting mainly CUHK alumni as our interview subjects in the hope to retrace what they had gone through in finding a cure. We hope to analyse and deduce from their

stories the systemic problems in order to reach new ways of thinking about how to deliver our services.

Nowadays, doctors must regard themselves as partners to their patients, providing support and encouraging them to take part in the decision-making in the process and to adjust their lifestyle to the treatment they receive. This will decidedly have beneficial effects on the treatment outcome. I hope that CUHKMC can blaze such a new path of medical services.



Dr. Fung Hong (3rd right), Prof. Justin C.Y. Wu (1st right) and CUHKMC staff visit Stanford Hospital



## Our Mission

- ◆ Pioneering Solutions in Healthcare

## Our Vision

By 2025, our patients will view us as:

- ◆ Respected for patient-centred services
- ◆ Reputable for new models in coordinated care
- ◆ Recognized for transparent and affordable pricing
- ◆ Renowed for clinical excellence

## Our Values

- ◆ Patient First
- ◆ Team care
- ◆ Compassionate
- ◆ Open
- ◆ Holistic
- ◆ Trustworthy



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# The Curtain is Rising

The CUHK Medical Centre is not just another clinical arm of the University or another teaching hub for its Faculty of Medicine. It is a vision audaciously attempted to bring greater transparency, efficiency and affordability to a system that ultimately serves every one sooner or later, as is reflected in its vision statement: ‘Pioneering Solutions in Healthcare’.

New models and new thinking, however, do not dilute or diminish the solemn oath with which every physician enters the profession: ‘The health and well-being of my patient will be my first consideration.’

After all, it’s all about doing good, and not just doing good but doing so much more good, as Dr. Fung Hong believes that devising a good system will exponentially multiply the benefits to the patients.

The stage is set. The cast are being assembled and props crafted or engineered. The broccoli is in the boil. 🍷





