

HONG KONG COLLEGE OF PHYSICIANS  
香港內科醫學院



HONG KONG COLLEGE OF PHYSICIANS

# SYNAPSE

RESTRICTED TO MEMBERS ONLY

APRIL 2021



Photograph by  
Professor Richard YH YU

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# Hong Kong College of Physicians Annual General Meeting 17 October 2020



# The President's Annual Report 2020

**Professor Philip Kam Tao LI**  
President, HKCP



This year is a special year for us. Because of the COVID-19 pandemic, our College cancelled PACES examinations in 2020. However, we adopted several special measures for our BPT trainees which were implemented in September 2020. This was to prevent disruption of smooth progression from BPT to HPT as well as to facilitate training.

Apart from this, we waived the minimum requirement of 10 CME Points for 2020. The COVID-19 pandemic caused many organisers to change the format of conference to hybrid or full virtual. Thus, our College encouraged online activities.

We established a “Working Group on Advance Directives” to deliberate and decide on the scope, formats and implementation of training and awareness programme related to Advance Directives.

Our Young Fellows’ Committee organised the career talk for medical students on 11 June 2020 by Webinar format. The attendance rate was high and feedback was positive. Other activities such as research workshops will be held in the near future.

The College had organised the “Symposium on incentives and reducing disincentives on organ donation and transplantation” on 29 August 2020 by Webinar format. There were more than 600 registrations and views on the topics were exchanged.

As can be reflected by the reports of the various Committees, a lot of work has been done this year. The smooth operation and steady progress of the College owe a lot to the contributions of Chairmen and Members of the Specialty Boards, as well as Committees. I would like to thank our two Vice-Presidents for their devotion and efforts in overseeing training and international affairs. I am also grateful to our Honorary Treasurer for his very shrewd book-keeping such that the College remains in a healthy state financially. I would like to express my gratitude in particular to our Immediate Past President and Senior Advisor for their valuable advice and ceaseless support over the year. My final vote of thanks goes to our Honorary Secretary and the hardworking and dedicated secretariat staff in maintaining the smooth operation of the College.

# Address to New Fellows

## Conferment Ceremony 2020

Dear all New Fellows and Members,

I would like to congratulate all of you to become the New Fellows and Members of our College.

This year we have 66 new fellows and 64 new members being conferred. We are seeing a reduction in the number of new members conferred, mainly related to the inability of the College to conduct the March and October PACES of 2020, which I will have more elaboration later.

We should be pleased that a real face to face conferment ceremony can be organized under COVID-19 as this is the first, and probably the largest, conferment ceremony of all Colleges of our Academy. I am very grateful to Prof Sophia Chan, Secretary for Food and Health, Dr Tony Ko, Chief Executive of Hospital Authority, Prof CS Lau, our Academy President and all College Presidents and representatives who grace us on this memorable event. We are also grateful to many of our senior Honorary Fellows who are here to give support to the College and the new fellows.

This must be a very precious moment of your life that you have reached a new milestone in your career. Your hard work has paid up and at the same time, you should appreciate all who have supported you in your path to success.

May I ask all the New Fellows and Members to rise:

Wave your hands to your family, your peers and your seniors in the audience who have supported you to show your appreciation.

Thank you.

In Oct 2019, Our College had the First Joint Scientific Meeting with the Royal College of Physicians with the presence of Prof Andrew Goddard, the President of RCP in our conferment ceremony. This one year is really very momentous for Hong Kong, UK and the world under the influence of COVID 19. I quote one personal communication Prof Goddard sent me: 'I'm sure you are as busy as we are with the ever-changing situation around the pandemic and the functions of our colleges. We chose an interesting time to be at the helm.' I am very grateful to the support from all of you to me and the College during this challenging period.

At this juncture, I would like to give praise to all the healthcare workers of Hong Kong and notably our Physician Fellows and members, who are on all the fronts in fighting during this COVID-19 era. Currently our College has 1,981 Fellows, 301 members and 359 trainees making a total of 2,641, the biggest in the Academy. All our Fellows and Members, regardless of which Subspecialty, have been heavily involved during this challenging times. Many of you may have already received the latest issue of Synapse, our College publication, which has devoted as a COVID-19 Special Issue. The articles reflected the work and feelings of

our Fellows and Members of various subspecialties, from junior interns, residents, Associate Consultants, Consultants and Professors. The dedications and selfless acts are highly commendable.

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) certainly affects the lung. And at the same time, inflammatory and coagulation effects on different organs including lung, brain, liver, heart and kidney can lead to multi-organ failure. That brings out one very important training requirement that the College has all the time promoted for all our fellows: a subspecialty training together with the mandatory broad based training of Advanced Internal Medicine (AIM) as dual accreditation as we Physicians should always manage a patient as a whole and not organ-centric.

As said earlier, our College has made the painful decision to cancel both the March and October PACES examination of MRCP this year, after a very elaborate discussion taking into account of many factors. Because of this, we have made special ad hoc arrangements for our Basic Physician Trainees so that the progression to Higher Physician Training would not be interrupted or substantially delayed. We are preparing for a larger quota for PACES examination in the coming diets in 2021 to catch up for such shortfall. The strong support from the Food and Health Bureau, Hospital Authority and the Academy is very much needed for the smooth running of the clinical examination involving overseas examiners and real patients and it is with great pleasure that the 3 helmspersons are here to receive my public lobbying.

This year, our Annual Scientific Meeting, held today and tomorrow, is the first time that we have as hybrid nature. We have over 850 registrations for this meeting, the record high for our College. It speaks well for itself that when there are challenges, there are also opportunities.

I have started to engage the College more on promoting general medical affairs. In August, we have organized the Symposium on Incentives and Reducing Disincentives in Enhancing Organ Donation and Transplantation, jointly with Department of Health and Hospital Authority, in addition to the Professional Societies. In November we will organize the Symposium on Non-Communicable Diseases. These two areas are very much of interests and significance

related to the clinical practice of our Physicians and the well-being of our chronic disease patients.

It must be the hope of all of us that the COVID-19 pandemic will go away soon. With all the work from different levels in the Government, Hospital Authority and the Profession, hopefully this can materialize soon. One thing for certain is that our College Fellows and Members will be devoting our strongest and virtuous efforts to continue to fight the Virus. "Sapientia et Humanitas", our College Motto in the Arms, signify that with wisdom and humanity, we physicians will conquer in this battle.

Throughout these years, I am really glad to see that some of our senior College Fellows are witnessing the conferment of their children as an incoming Fellow. And it gives me great joy to have families of physicians to join our bigger family of College of Physicians.

Once again, congratulations to you all as new Fellows and Members!

Best wishes to all of you.



**Professor Philip Kam Tao Li**

President, HKCP

## GERALD CHOA MEMORIAL LECTURE

# To love to heal

## 17<sup>th</sup> October 2020

**Prof CS LAU**

Chair and Daniel CK Yu Professor in Rheumatology and Clinical Immunology  
Head, Department of Medicine, The University of Hong Kong  
President, Hong Kong Academy of Medicine

It is an honour to have been invited to deliver this lecture named after Professor Gerald Choa, a great clinician, humanitarian and guiding light of medical education in Hong Kong! In the book *Confessions and Professions: Grand Rounds in Hong Kong Medicine*, Professor Richard Yu wrote 'Professor Choa not only taught me medicine, but also how to be a doctor with a good sense of ethics and bedside manners. . . . He taught me that patients always

come first. . . . You do not treat the disease, you treat the patient.'

Medical improvements have had an immense impact on the course of human life. Novel and more specific treatments enable us to live longer and probably better. Unfortunately, however, such advances in medical and health sciences may have steered modern day medical education towards learning primarily scientific knowledge, often times forgetting healing is more than a

process of correcting an underlying biochemical or immunological aberration, or removing a pathological tissue or organ. All too often, we emphasise on saving lives and not how to tender our patients' sufferings or demise. Scientific advances have turned the processes of suffering and dying into mere medical experiences for healthcare workers! Besides, we have not yet had an answer for many medical conditions, and that



most of the wonderful therapeutic breakthroughs are expensive and only available to the few who can afford them! There remain many who continue to suffer from their illnesses! More needs to be done. More can be done!

The Declaration of Geneva reminds all of us, at the time of being admitted as a member of the medical profession, that *“the health and wellbeing of our patients are our first consideration”*. Making our patients better simply showing we care is well illustrated by our evidence based approach to medicine. A good proportion of patients who participate in controlled clinical trials report an improvement in their symptomatology and functional status even when given placebo treatment. This has been attributed to the added attention given by the study clinician and other healthcare workers during the trial. In a recent study evaluating the needs of rheumatoid arthritis patients at different stages of their disease, the more severe the arthritis was, the more the patients desired for emotional and psychological support from their physician. Medications were only secondary!

The Declaration of Geneva also reminds us to *“attend to our own health, wellbeing and abilities”*. Unfortunately, however, we seldom do this. While we are often advised to seek professional support and balance between work and our own life, our medical culture is not conducive to doing so. In reality, medical workplaces are harsh environments and colleagues seldom show much sympathy or understanding for those who are seen to be not carrying their weight. A recent study conducted by Ng et al to estimate the prevalence

and severity of burnout amongst medical graduates from the University of Hong Kong showed this phenomenon was highly prevalent locally with 63.1%, 55.9% and 35.4% of the 496 respondents reporting personal, work-related and patient-related burnout, respectively. A more alarming finding is that these local doctors were worse off when compared with their contemporaries from Australia, Canada, New Zealand and Singapore. Age, female gender, practice setting, lack of regular exercise and inadequate sleep were factors associated with personal and work-related burnout (Ng APP, Chin WY, Wan EYF, Chen J, Lau CS. *Prevalence and severity of burnout in Hong Kong doctors up to 20 years postgraduation: a cross-sectional study. BMI Open 2020; 10:e040178.doi:10.1136/bmjopen-2020-040178*).

In 2019, a similar study was carried by the Hong Kong Academy of Medicine Young Fellows Chapter to examine the well-being and health related behaviours of 514 Fellows and residents-in training of the 15

constituent Academy Colleges. A large proportion (32.1%) of Fellows and trainees felt their health status was worse than that of others their age with only 17.6% of the respondents felt they were better off. Many felt inadequate sleep at work and had only an average 6.2 hours sleep each night. A similar burnout phenomenon to what Ng et al reported was observed and 28% and 13.6% of the respondents were dissatisfied with their present job and would not want to be a doctor, respectively. What was alarming was 21% of the respondents reported either ‘life was not worth living’, ‘wish I was dead’ or had ‘suicidal ideas or gestures’!

Doctors are privileged people given the opportunity to make positive contributions to the lives of others. To heal them, our profession calls for more than a good understanding of the abnormal function of a molecule or defective behaviour of a cell. Doctors need to learn to love their patients. But that is not enough! Doctors also need to love themselves and each other to be able to perform their duties to heal!



# Hong Kong College of Physicians Position Statement and Recommendations on the 2017 American College of Cardiology/American Heart Association and 2018 European Society of Cardiology/European Society of Hypertension Guidelines for the Management of Arterial Hypertension

**Dr Kwok Keung CHAN**

Department of Medicine  
Pamela Youde Nethersole Eastern Hospital

In 2017, the American College of Cardiology (ACC)/American Heart Association (AHA) released a guideline for the prevention, detection, evaluation and management of high blood pressure (BP) in adults.<sup>1</sup> In 2018, the European Society of Cardiology (ESC)/European Society of Hypertension (ESH) published a new guideline for the management of arterial hypertension.<sup>2</sup> Both the European and American guidelines provide comprehensive information for the clinical and public-health practice communities on high BP management. Despite the many similarities between these two guidelines, the guidelines also

have major differences in terms of diagnosis and treatment of hypertension.

A working group of the Hong Kong College of Physicians (HKCP) convened and conducted a focused discussion on important issues of public interest pertaining to these two guidelines. A position statement was published and it formulated the HKCP's views on the following issues: (1) classification of BP; (2) BP measurement; (3) thresholds for initiation of antihypertensive medications; (4) BP treatment targets; (5) treatment strategies.<sup>3</sup>

The 2018 ESC/ESH guideline defines hypertension as office systolic BP (SBP)  $\geq$  140 mmHg and/or diastolic BP (DBP)  $\geq$  90 mmHg. However, the 2017 ACC/AHA guideline contains a new BP classification that proposes a lower threshold to define hypertension (SBP  $\geq$  130 mmHg and/or DBP  $\geq$  80 mmHg). The 2017 ACC/AHA guideline's definition of hypertension is controversial. According to that new definition, about 46% of adults in the US have hypertension, as compared with about 32% under the previous definition<sup>1</sup>. The potential implications for management of patients with hypertension are immense, both for individual patients as well society and healthcare economics. The HKCP concurs with the 2018 ESC/ESH guideline on BP classification, which reflects the BP-related cardiovascular risks and benefits of BP reduction in clinical trials.

Both the European and American guidelines strongly emphasise accurate BP measurement and recording and consideration of readings in various settings as needed. Out-of-office BP measurement refers to home BP monitoring and ambulatory BP monitoring. Although most randomized controlled trials have used clinic BP as the reference, the HKCP acknowledges the growing body of evidence surrounding the use of home and ambulatory BP monitoring in the diagnosis and monitoring of hypertension and endorses the wider use of both methods.

Concerning the thresholds for initiation of antihypertensive medications, the HKCP supports the direction of a risk-based approach to treatment decision making and echoes the 2018 ESC/ESH approach. The HKCP recommends that patients seek physicians' advice and that individualized treatment be provided after a complete assessment of the patient's clinical profile, risk factors and preferences.

For the BP treatment targets, the HKCP concurs with the 2018 ESC/ESH guideline in specifying target

ranges for both SBP and DBP, with consideration of different age-groups and specific disease subgroups. The first objective of the European guideline is to lower BP to  $<$  140/90 mmHg in all patients and, provided that treatment is well tolerated, treated BP values should be targeted to  $\leq$  130/80 mmHg in most patients. A DBP target range of 70 to 79 mmHg is considered for all hypertensive patients, independent of risk level and comorbidities.

The European and American guidelines have much in common in terms of treatment strategies. Both recommend a similar array of non-pharmacological lifestyle interventions and drug treatment as the core strategy for BP reduction. The HKCP agrees with the 2018 ESC/ESH guideline's drug treatment algorithm and the initiation of a two-drug combination in most patients. Monotherapy is recommended in frail older patients and those at low risk with mild hypertension. The HKCP sees the recent guideline publications as good opportunities to increase public awareness about hypertension and to encourage lifestyle modifications among the local population.

## References

1. Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol* 2018; 71: e127-248.
2. Williams B, Mancia G, Spiering W, et al. 2018 ESC/ESH guidelines for the management of arterial hypertension. *Eur Heart J*. 2018;39:3021-104.
3. Chan KK, Szeto CC, Lum CM, et al. Hong Kong College of Physicians Position Statement and Recommendations on the 2017 American College of Cardiology/American Heart Association and 2018 European Society of Cardiology/European Society of Hypertension Guidelines for the Management of Arterial Hypertension. *Hong Kong Med J* 2020 Oct, 26(5): 432-7.

# ANNUAL SCIENTIFIC MEETING

## on 17-18 October 2020

The Annual Scientific Meeting was held successfully on 17–18 October 2020. Owing to the COVID-19 pandemic, it adopted a hybrid mode with both physical and virtual attendance, as a first for a College event. Cyberspace participation has proved popular among many Fellows who found it more convenient.

The highlights included the prestigious named lectures. Prof EK Yeoh, our Hon Fellow, delivered an impressive piece entitled “The timeless Physician: A gift to humanity”. Prof CS Lau gave the Gerald Choa Memorial Lecture on “To love and heal”. Prof Ng Siew-Chien presented the Richard Yu Lecture “Gut microbiota: new frontier in understanding human health”. And Prof Sunny Wong received the Sir David Todd Lecture medal for his work on “Genomics and metagenomics: a treasure-trove for personalized medicine”.



## Symposium 1



Dr Yiu Kai Hang



Prof Hui Shu Cheong David



Prof Mary Ip

## Symposium 2



Dr Pang Yin Yu Shirley



Prof Ma Ching Wan Ronald

## Symposium 3



Dr Chan Sau Yan Thomas



Dr Cheung Man Tung Christina



Dr Mok Chi Chiu



# 33<sup>rd</sup> Annual General Meeting 22<sup>nd</sup> Congregation

On 17 October 2020 the College organised a Conferment Ceremony in the hybrid format, partly live and partly online, which is the first of its kind among such ceremony events hosted by all Colleges.

The 22<sup>nd</sup> Congregation was honoured by the attendance of the Secretary for Food and Health and Chief Executive of the Hospital Authority. The College presented souvenirs to outgoing Council Members to thank their contributions to the College over the years.





# Named Lectures and Awards In 2020



**Prof Eng Kiong YEOH**  
 Director, Centre for Health Systems and Policy Research  
 The Chinese University of Hong Kong

**AJS McFadzean Oration  
 The Timeless Physician: A Gift to Humanity**



**Prof Chak Sing LAU**  
 Chair and Daniel CK Yu Professor in Rheumatology and Clinical Immunology  
 The University of Hong Kong

**Gerald Choa Memorial Lecture  
 To love to heal**



**Prof Hei Sunny WONG**  
 Department of Medicine & Therapeutics, Prince of Wales Hospital  
 The Chinese University of Hong Kong

**Sir David Todd Lecture  
 Genomics and metagenomics: a treasure-trove for personalized medicine**



**Prof Siew-Chien NG**  
 Department of Medicine & Therapeutics, Prince of Wales Hospital  
 The Chinese University of Hong Kong

**Richard Yu Lecture  
 Gut Microbiota: New Frontier in Understanding Human Health**



**Dr Hoi Kei Iki CHAN**



**Dr Lap Tin LAM**



**Dr Philip Hei LI**

**Highest score in AIM**



**Dr Kit Shun Kevin MOK**

**Highest Score in PACES**



# Distinguished Research Paper Award for Young Investigators 2020



## Dr Ting Ting CHAN

Department of Medicine and Therapeutics,  
Prince of Wales Hospital

**Positive Hepatitis B Core Antibody Is Associated With Cirrhosis and Hepatocellular Carcinoma in Nonalcoholic Fatty Liver Disease**

*Am J Gastroenterol 2020;00:1–9.*



## Dr Ka Shing CHEUNG

Department of Medicine,  
Queen Mary Hospital

**Diabetes Increases Risk of Gastric Cancer After Helicobacter pylori Eradication: A Territory-Wide Study With Propensity Score Analysis**

*Diabetes Care 2019;42:1769–1775*



## Dr Lung Yi MAK

Department of Medicine,  
Queen Mary Hospital

**Diverse Effects of Hepatic Steatosis on Fibrosis Progression and Functional Cure in Virologically Quiescent Chronic Hepatitis B**

*Journal of Hepatology 2020, JHEPAT 7785*

## APPRECIATION

The College would like to express our deepest appreciation for Dr Robert Middleton to donate two invaluable books to our College. The two books are “The Principles and Practice of Medicine” (4<sup>th</sup> Edition, 1901) by William Osler and “Osler’s Principles and Practice of Medicine” (10<sup>th</sup> edition, 1927).

# Young Investigator Research Grant 2020

The following doctors received a research grant from the HKCP to complete their respective projects as named. Selection was decided by a scientific panel headed by Prof David Hui.

The grant was established in 2012, to encourage young Fellows aged 40 or below to conduct research in Hong Kong. Up to six grants of up to HK\$50000 each are awarded annually.

A prospective study on the utility of endoscopic ultrasound elastography (EUS-E) for predicting cirrhotic-related complications in patient with chronic liver diseases

**Dr Ting Ting CHAN**

Department of Medicine & Therapeutics,  
Prince of Wales Hospital

Clinical course after hepatitis C surface antigen seroclearance and predictive factors for adverse clinical outcome

**Dr Ka Shing CHEUNG**

Department of Medicine,  
The University of Hong Kong

A randomized controlled study to compare the clinical efficacy and complications of two differently sized chest drains in relieving malignant pleural effusion

**Dr Ka Yan CHIANG**

Department of Medicine,  
Queen Mary Hospital

A pilot randomized controlled trial on post-polypectomy bleeding in colonoscopy related to resumption time of direct oral anticoagulant (PPB-DOAC study)

**Dr Louis Ho Shing LAU**

Department of Medicine & Therapeutics,  
Prince of Wales Hospital

Oral 5-aminosalicylic acid withdrawal in long standing inactive ulcerative colitis: a double-blind, randomized, placebo-controlled trial

**Dr Joyce Wing Yan MAK**

Department of Medicine & Therapeutics,  
The Chinese University of Hong Kong

Use of Telemedicine for follow-up of Systemic Lupus Erythematosus ("TeleSLE") in the COVID-19 outbreak: a pragmatic randomised controlled trial

**Dr Ho SO**

Department of Medicine & Therapeutics,  
The Chinese University of Hong Kong

# Announcement

Our College will be celebrating the 35<sup>th</sup> anniversary in October 2021. We and the Hong Kong Society of Transplantation will be organising a Symposium on COVID-19 Vaccine on 6 June 2021. In addition, we will be organising a Symposium on Genetics and Genomics in Medicine on 3 July 2021 by hybrid format. Furthermore, the 35<sup>th</sup> Anniversary Annual Scientific Meeting will be held on 16–17 October 2021, and details will be announced in due course.

## Hong Kong College of Physicians and Hong Kong Society of Transplantation Joint Symposium on COVID-19 Vaccine

**Date** : June 6 (Sunday)  
**Format** : Free virtual participation for all HKCP fellows, members and trainees  
**Time** : 8:45 – 10:30 am

8:50 – 9:00 am	<b>Opening Speech</b>	Dr Tony Ko, Hospital Authority, Hong Kong
9:00 – 9:30 am	<b>COVID-19 Vaccine: Knowns and Unknowns</b>	Prof Gregory Poland, Mayo Clinic, Rochester, USA
9:30 – 10:00 am	<b>COVID-19 vaccination programme in Hong Kong – the way forward</b>	Prof David Hui, Chinese University of Hong Kong, Hong Kong
10:00 – 10:30 am	<b>Real-World Data of SARS-CoV-2 Vaccine: Dialysis and Transplant Patients</b>	Prof Paul Harden, Oxford University, Oxford, UK

## HKCP 35<sup>th</sup> Anniversary Symposium on Genetics and Genomics in Medicine

**Date** : July 3, 2021 (Saturday)  
**Venue** : HK Academy of Medicine Jockey Club Building  
**Format** : Hybrid Mode  
**Time** : 1:45 pm – 5:30 pm

1:45 – 1:50 pm	<b>Welcoming Speech</b>	
1:50 – 2:00 pm	<b>Opening Speech</b>	
2:00 – 2:30 pm	<b>Genetics and genomics biotechnology – 2021 Update</b>	Prof Caroline Wright, Exeter
2:30 – 3:00 pm	<b>The transforming power of Genomic Medicine on cancer management</b>	Prof Tony Mok, Hong Kong
3:00 – 3:30 pm	<b>The Genetics of Polycystic Kidney Disease – impact on diagnosis and treatment</b>	Prof Albert Ong, Sheffield
3:30 – 3:50 pm	<b>Break</b>	
3:50 – 4:20 pm	<b>Genetics and genomics of diabetes – the path to precision medicine</b>	Prof Ronald Ma, Hong Kong
4:20 – 4:50 pm	<b>Parkinson and dementia – futuristic genetic approach</b>	Dr KY Mok, London
4:50 – 5:20 pm	<b>Acute myeloid leukaemia – a genetic approach</b>	Prof Anskar Leung, Hong Kong
5:20 – 5:30 pm	<b>Closing Remarks</b>	

\* Each lecture is 25 min with 5 min Q&A

# What you should know about the Information Technology (IT) committee of the Hong Kong College of Physicians

**Dr. Cheung Hei CHOI**

Chairman  
IT Committee

## **To begin with:**

A clarion call from our College President

## **What:**

Newborn Information Technology (IT) committee.  
Parents are the website/ IT group led by Dr. Francis Mok

## **Who:**

Eleven sagacious expert physicians (Heyson Chan, Pierre Chan, Nicole Chau, Kai Ching Hau, Tsz Kin Kwok, Wilson Lam, Chi Bon Leung, Tsan Hei Luk, Risa Ozaki, Kelvin Tsoi, Chun Por Wong) with an amateur chairman (Cheung Hei Choi) & an omnipotent secretary (Gloria Ng)

## **Missions:**

- To enhance the College website and other IT platform/ infrastructure to support education, training, examination and communication among fellows and trainees
- To advise the College on IT strategy in the light of changing technology and other external factors
- To develop IT policies for the most effective use of IT/ AV resources required by the College

## **Directions:**

- To facilitate, not to create extra burden
- Prioritization and staged improvement of IT related activities rather than big change in short time based on resources implication and necessity (a paseo, not sprint)
- More cloud-based services for further website/ media enhancement
- Collection of wisdom from all members and fellows

## **Action plans:**

- Sourcing for the commercial cloud-based services to put up education video/ presentations in our College website.

- Exploring the use of electronic record for BPT training as part of the personal customization in our website
- Exploring the use of electronic record for HPT and post-fellow training in future (including the e-Portfolio)
- Looking for any current workflow/ daily routine (e.g. email system) in the College Secretariat office which can be facilitated by using IT tools
- Brainstorming on further enhancement of website or development of other IT platform to provide cornucopia of information and training
- Providing IT support to specialty examination and committee meeting
- Collecting ideas and opinions from members and fellows of the College

## **Wishes:**

- In the world of technology, people make the difference. We need your participation. Let's nurture our newborn committee by sending us your ideas (to somewhere eg an email address).

# “Recognizing the Impact of Non-Communicable Diseases (NCD)”

NCD Forum 2020, organized by Hong Kong College of Physicians, held on 21 November 2020

**Prof Alice Pik Shan KONG**  
Department of Medicine & Therapeutics  
Prince of Wales Hospital

Over 80% of global deaths are due to non-communicable diseases (NCD) such as diabetes, cardiovascular diseases, chronic kidney diseases, depression, cancers, etc. In view of the impact of NCD locally and globally, HKCP organized the “NCD Forum 2020” which was held in hybrid format, both in person attendance at Hyatt Regency Hotel and through virtual platform (based on the consideration of COVID-19 pandemic) with over 200 members joined the event on 21 November 2020.

After welcome speech delivered by Prof. Richard Yu and Prof. Philip Kam-Tao Li, Prof. Philip KT Li, President of HKCP, started the first lecture

entitled “Non-Communicable Diseases – Global and Hong Kong Perspectives”, followed by Dr. Kwok-Keung Chan, cardiologist from Pamela Youde Nethersole Eastern Hospital, who delivered a talk of “Hypertension Guideline: HKCP Position Statement”. After that, Prof. Alice Pik Shan Kong, endocrinologist from The Chinese University of Hong Kong, spoke on the topic “Prevention and New Advances of Diabetes Mellitus Treatment” and Dr. Jack Kit-Chung Ng, nephrologist from Prince of Wales Hospital, talked about “Prevention and Challenges in Chronic Kidney Diseases”. The three talks in the first session were chaired by Dr. Patrick CK Li, Immediate Past President of HKCP.

After a break, Prof. Anthony TC Chan, Vice-President of HKCP chaired the second session of the Forum which comprised of 3 more talks namely “Generalized Anxiety Disorder and Depression: Pharmacological and Non-pharmacological Management” by Family Physician specialist, Prof Samuel YS Wong from The Chinese University of Hong Kong; “Total Pain Management in Daily Clinical Practice” by Dr. Simon KC Chan, anaesthetist from Hong Kong Sanatorium and Hospital and “Cancer Surveillance in Hepatitis” by Prof. Man-Fung Yuen, hepatologist from The University of Hong Kong. The Forum ended after the closing remarks given by Prof. Richard Yu and Prof. Philip KT Li.





# The HKCP Council 2020 – 2021

## CHAIRMEN OF VARIOUS COMMITTEES

### NATIONAL AND INTERNATIONAL LIAISON COMMITTEE

– Prof Chan Tak Cheung Anthony

### EDUCATION AND ACCREDITATION COMMITTEE

– Prof Chan Tak Mao Daniel

### PROFESSIONAL AND GENERAL AFFAIRS COMMITTEE

– Dr Tse Man Wah Doris

### SCIENTIFIC COMMITTEE

– Prof Yuen Man Fung

### MEMBERSHIP COMMITTEE

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### RESEARCH COMMITTEE

– Prof Hui Shu Cheong David

### IT COMMITTEE

– Dr Choi Cheung Hei

### SYNAPSE

– Dr Chan Kwok Keung

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# Updates on the MRCP examinations

**Professor Ronald C.W. MA**

Chair, Examination Committee, HKCP

The last 12 months has seen unprecedented challenges to the medical profession due to the COVID-19 pandemic. Due to the profound impact of the pandemic, and the various infection control measures, the organization of professional examinations has also been affected. The two usual diets of the clinical PACES examinations in March and October 2020 had to be cancelled due to the pandemic, though the written examinations for MRCP (UK) Part I and Part 2 were able to resume in the later parts of 2020, following implementation of different infection control and social distancing measures. We are pleased to report that despite the various challenges posed, in particular the continued high workload posed by the pandemic, our young colleagues have achieved good results in the written exams in 2020, with 93% and 89% passing the HKCPIE/MRPC(UK) Part I and Part II (Written) examinations in September 2020 and October 2020, respectively.

The examination committee, under the leadership of our College President Professor Philip Li, is committed to resume organization of the clinical examination, namely the Practical Assessment of Clinical Examination Skills (PACES), given the importance of the examination to the career progression of our trainees. With the great help and tireless effort from the host centres, and the support from MRCP (UK) Central Office, we are set to resume PACES in March 2021, whereby we will be conducting 8 days of examination

for the first time, in order to provide more opportunities for candidates to undertake the examination. We expect to be likewise organizing additional days of examination for the October 2021 diet of PACES. There are ongoing changes to the delivery of the written and clinical parts of the MRCP examination due to challenges posed by COVID-19, and we will continue to work closely with MRCP (UK) in order to ensure our local doctors have the opportunity to undertake the examination and progress in their career development. Colleagues are also advised to periodically check the MRCP (UK) and HKCP websites in order to keep abreast of ongoing changes.

I would like to take this opportunity to express our sincere thanks to all the colleagues at the host centres for PACES, who have worked very hard to organize the examination at these trying times, colleagues at the College, members of the Examination Committee, and all our examiners for supporting the running of the Examinations. I would like to in particular express my sincere gratitude to Professor Anskar Leung, immediate past chairman of the Examination Committee, whose expert guidance and counsel have been most important in ensuring the successful organization of the MRCP examinations. Last but not least, we would like to wish our young colleagues the very best of luck with the upcoming examinations and hope they will continue to excel!

## Passing rate for the Joint HKCPIE/MRCP(UK) Part I examinations as follows

	Sitting	Pass
September 2002	100	33 (33%)
January 2003	124	55 (44%)
May 2003 (SARS Special)	21	7 (33%)
September 2003	54	29 (54%)
January 2004	93	39 (42%)
September 2004	29	16 (55%)
January 2005	96	68 (70.8%)
September 2005	24	15 (62.5%)
January 2006	95	74 (80%)
September 2006	21	13 (62%)
January 2007	87	67 (77%)
September 2007	23	12 (52%)
January 2008	56	38 (68%)
September 2008	47	32 (68%)
January 2009	59	47 (80%)
September 2009	47	28 (60%)
January 2010	45	28 (62%)
September 2010	62	39 (63%)
January 2011	44	23 (52%)
September 2011	64	49 (77%)
January 2012	45	28 (62%)
September 2012	80	59 (74%)
January 2013	41	22 (54%)
September 2013	76	60 (79%)
January 2014	30	20 (67%)
September 2014	84	64 (76%)
January 2015	29	20 (69%)
September 2015	100	71 (71%)
January 2016	33	18 (55%)
September 2016	84	63 (75%)
January 2017	36	19 (53%)
September 2017	69	56 (81%)
January 2018	25	12 (48%)
September 2018	108	74 (69%)
January 2019	43	19 (44%)
September 2019	96	64 (67%)
January 2020	41	20 (49%)
September 2020	109	101 (93%)
January 2021	33	20 (61%)

## Passing rate for the Joint HKCPIE/MRCP(UK) Part II (written) examination over the past years:

	Sitting	Pass
2 July 2002	53	27 (51%)
13 November 2002	50	24 (48%)
13 August 2003	110	62 (56%)
10 December 2003	54	31 (57%)
28 July 2004	65	42 (65%)
8 December 2004	46	32 (70%)
13 April 2005	32	15 (47%)
27 July 2005	76	56 (74%)
7 & 8 December 2005	26	16 (62%)
12 & 13 April 2006	29	13 (45%)
26 & 27 July 2006	91	68 (75%)
6 & 7 December 2006	33	18 (55%)
11 & 12 April 2007	34	22 (65%)
25 & 26 July 2007	80	70 (88%)
5 & 6 December 2007	19	13 (68%)
9 & 10 April 2008	21	13 (62%)
30 & 31 July 2008	47	36 (77%)
3 & 4 December 2008	17	10 (59%)
8 & 9 April 2009	32	25 (78%)
29 & 30 July 2009	50	43 (86%)
25 & 26 November 2009	12	7 (58%)
7 & 8 April 2010	41	34 (83%)
28 & 29 July 2010	25	19 (76%)
24 & 25 November 2010	8	2 (25%)
6 & 7 April 2011	45	35 (78%)
23 & 24 November 2011	32	25 (78%)
28 & 29 March 2012	55	43 (78%)
12 & 13 December 2012	57	44 (77%)
10 & 11 April 2013	60	52 (87%)
11 & 12 December 2013	48	34 (71%)
9 & 10 April 2014	54	46 (85%)
10 & 11 December 2014	26	25 (96%)
25 & 26 March 2015	53	45 (85%)
9 & 10 December 2015	68	65 (96%)
6 & 7 April 2016	29	28 (97%)
7 & 8 December 2016	62	50 (81%)
29 & 30 March 2017	25	21 (84%)
28 & 29 November 2017	58	54 (93%)
27 March 2018	21	14 (67%)
24 October 2018	20	15 (75%)
26 March 2019	79	71 (90%)
22 October 2019	17	12 (71%)
27 October 2020	87	77 (89%)



# BEST THESIS AWARD

## Gold Award Winner

### Machine Learning–Based Model for Outcome Prediction in Intensive Care Units

**Dr Ka-man FONG**

Intensive Care Unit, Queen Elizabeth Hospital

#### Background

Researchers have long been struggling to improve the disease severity score in mortality prediction in ICU. The digitalization of medical health records and advancement of computation power have promoted the use of machine learning in critical care. This study aimed to evaluate whether machine learning model would outperform traditional APACHE IV, in predicting hospital mortality of patients admitted to ICU, without the need of adding extra variables in the prediction procedure.

#### Methods

The datasets were assembled from the eICU database including 139369 patients across 208 hospitals throughout the U.S. and 5 ICUs in Hong Kong, including 10909 patients. The two datasets were first combined into one large dataset before 80:20 stratified split into the training set and the test set. The XGBoost machine algorithm was chosen to predict the hospital mortality. The variables in the model were the same as those included in the APACHE IV score. The discrimination and calibration of the model were assessed.

#### Results

Of the 147054 patients in the whole cohort, the hospital mortality was 9.3%. The area under the precision-recall curve for the XGBoost algorithm was 0.57, and 0.48 for APACHE IV. Similarly, the XGBoost reached an area under the receiving operating curve (AUROC) of 0.90, while APACHE IV had an AUROC of 0.87. Additionally, the XGBoost algorithm showed better calibration than the APACHE IV.



#### Conclusion

Using the same variables as in APACHE IV, the XGBoost algorithm outperformed the APACHE IV in predicting hospital mortality for patients admitted to ICU, based on the eICU and Hong Kong datasets.

# BEST THESIS AWARD Silver Award Winner

## Myofibrillar Myopathy 5: Clinical, Morphological and Genetic Studies of a Cohort of Hong Kong Chinese Patients with Novel Pathogenic *FLNC* Nonsense Mutation

**Dr Yuan GAO**

Department of Medicine, Queen Mary Hospital

Myofibrillar myopathy type 5 (MFM5) is a rare autosomal dominant genetic myopathy caused by mutation of *FLNC* gene encoding filamin-C, one of the Z-disk associated proteins, that helps in maintaining myofibril assembly, remodeling and maintenance. The clinical manifestation of MFM5 varies corresponding to the difference of *FLNC* mutation types and locations. Although myofibrillar myopathy can be characteristically recognized by muscle histopathological analyses, the precise molecular etiology cannot be readily discerned without genetic testing. Although series of myofibrillar myopathy cohorts have been reported in American, German, Italian and French populations, no Chinese population cohort data is currently available. In this study, we identified a cohort of Hong Kong Chinese MFM5 patients with genetic confirmation of a novel *FLNC* heterozygous c.8129G>A (p.Trp2710Ter) nonsense pathogenic mutation. Clinical, radiological, histopathological and genetic studies of these symptomatic MFM5 patients were conducted across different generations within these families. Comparison was made with other reported Caucasian myofibrillar myopathy cohorts. In our study, majority of MFM5 patients had symptoms onset over 40 years old. Weakness of lower limb proximal muscles was firstly presented, and it progressed slowly to affect both distal and upper limb muscles. Large fiber axonal peripheral neuropathy, restrictive lung disease and cardiac dysfunction were observed concomitant manifestations in MFM5 patients. Although MFM5 exhibited heterogenous clinical manifestations even among affected members in the same family, its muscle magnetic resonance imaging (MRI) pattern was consistent and muscle biopsy histopathological findings were characteristic. The utilization of muscle ultrasound-MRI fusion muscle biopsy yielded high accuracy and reduced surgical complications. Genetic testing by next-generation sequencing (NGS) targeting myopathy-related genes detected a novel *FLNC* heterozygous c.8129G>A nonsense mutation in the exon 48 at dimerization domain of filamin-C, it formed a premature termination codon and resulted in mRNA translation termination and protein truncation. Recurrent presence of this *FLNC* nonsense mutation among different unrelated families implied its founder effect among Hong Kong Chinese populations. Understanding the clinical, morphological and genetic characteristics of MFM5 in Chinese populations helped in early recognition and diagnosis of the disease, understanding disease mechanisms and promoting exploration of potential therapeutics.



# BEST THESIS AWARD Bronze Award Winner

## A Novel CRT Implantation Method under Electrocardiographic Imaging Guidance with Physiological Pacing Options for Better Resynchronization in Non-LBBB patients – A Pilot Study

**Dr Chi Kin AU**

Department of Medicine & Therapeutics, Prince of Wales Hospital

### Background

The response rate of CRT in non-LBBB patients is low.

### Objectives

A novel Electrocardiographic Imaging (ECGi) guided CRT implantation method was studied in non-LBBB patients.

### Method

Non-LBBB CRT candidates were recruited. During CRT implant, RV, coronary sinus, HIS and left-bundle leads were inserted. Non-invasive CardiInsight ECGi mapping system would then be activated to measure the total activation time (TAT) of the heart during different pacing combinations, AV and VV delay. The combination that resulted in the shortest TAT would be chosen as the final setting. ECG, echocardiographic and clinical parameters were measured at baseline and after 3-6 months. Clinical response was defined as improvement in NYHA  $\geq 1$  class. Echo response was defined as reduction of LVESV  $\geq 15\%$ .

### Results

Total 12 patients were recruited (RBBB = 8; IVCD = 4). HIS-Bundle pacing and Left-Bundle pacing were involved in the final settings in 8 patients (4 for each). After implant, QRSd reduced from  $165\text{ms} \pm 20\text{ms}$  to  $135\text{ms} \pm 20\text{ms}$  ( $p=0.001$ ). LVEF improved from  $25.2\% \pm 6.6\%$  to  $32.4\% \pm 10.3\%$  ( $p=0.009$ ) and LVESV improved from  $137\text{mL} \pm 58\text{mL}$  to  $121\text{mL} \pm 52\text{mL}$  ( $p=0.04$ ). NYHA class improved from  $3.1 \pm 0.5$  to  $2.0 \pm 0.6$  ( $p<0.0001$ ). Seven (58%) patients were echo responders and nine (75%) were clinical responders. One patient died of decompensated heart failure at 1-month, and one had CIED infection at 3-month requiring device removal. Current approach resulted in better electrical resynchronization when compared with the conventional CRT (TAT reduction by current approach vs conventional CRT; 41% vs 16%;  $p<0.0001$ ).



### Conclusion

ECGi guided CRT implantation is feasible and may associate with better clinical outcomes.

## SIR DAVID TODD LECTURE

# Genomics and Metagenomics: A Treasure-trove for Personalized Medicine

**Prof Hei Sunny WONG**

Department of Medicine & Therapeutics, Prince of Wales Hospital  
The Chinese University of Hong Kong

Recent advances in genomic technology has allowed us to understand our physiology at an unprecedented depth. Our on-going hunt for disease-causing genes, ever since the Mendelian time and more recently via genome-wide genotyping and sequencing approaches, has pinpointed defective pathways in common medical diseases. Key genes in these biological pathways could represent the diseases' Achilles heel, as targets for potential new therapies to combat these purportedly indomitable diseases. Aside from the host genome, our microbial metagenome has emerged as an environmental factor that could closely interact with our body. Our microbiome, especially those trillions of microbes residing in our gastrointestinal tract, form a complex community that can substantially affect our systemic health and disease states.

In this lecture, I will discuss some latest advances in genomics and illustrate how it has opened the door of personalized medicine. Moreover, I look forward to sharing my research on understanding the host-microbial interaction in colorectal cancer and exploring it for clinical translation. Collectively, these research data have provided an unprecedented opportunity to move genomic discoveries towards applications, that will hopefully take us into a new realm of medicine in the future.



# RICHARD YU LECTURE

## Gut Microbiota: New Frontier in Understanding Human Health

**Prof Siew-Chien NG**

Department of Medicine & Therapeutics, Prince of Wales Hospital  
The Chinese University of Hong Kong

**We are not alone in our bodies.** Living inside each of us are trillions of microorganisms — bacteria, viruses, fungi, that are collectively known as our microbiome. Various organs have distinct microbial players and several diseases are now thought to be influenced by imbalanced (“dysbiosis”) and abnormal functions of the gut microbiome. Those conditions include cancer, obesity and metabolic diseases, inflammatory bowel diseases, autoimmune disorders such as multiple sclerosis and autism spectrum disorders, and depression. The gut microbiome also strongly interacts with certain drugs and influence the efficacy. Microbiome advances offer hope for development of novel diagnostics, therapeutics, and personalised medicine.

**Bugs as drugs.** Modified bacteria and formulated microbial communities can form the basis of new living treatments. Faecal microbiota transplantation (FMT) represents a clinically feasible way to restore the gut microbial ecology, via the infusion of intestinal microbiota from a healthy donor into a diseased recipient. FMT has proven to be a breakthrough for the treatment of recurrent *clostridioides difficile* infection. The therapy is well tolerated and appeared safe in the short- to medium-term. We have established Asia’s First Microbiota Transplantation & Research Centre and the

first longitudinal FMT Registry in Asia to aid development of personalized gut microbiota-based therapy and safety surveillance. The CUHK FMT center is the sole provider of FMT to the health authority in Hong Kong for the treatment of recurrent *clostridioides difficile* infections. We will address the current status and future perspective of FMT for treating human diseases.

#### **Microbe boosts immunity - a remedy for COVID-19?**

The gut microbiota regulates the immune system and dysbiosis would result in lower immunity. Depending on how much our microbes are in balance can determine how likely we are to catch or ward off a virus, including COVID-19. We found that COVID-19 patients were lacking a series of good bacteria. Some commensal symbionts, generally good bacteria, were missing while other pathogens were increased in the patients’ gut. The condition prevailed even after patients had recovered and been discharged. With the use of big data analysis and machine learning, a probiotic formula which targets at gut dysbiosis derived from COVID-19 infections have been developed and is undergoing clinical studies. We are studying good bacteria that are closely linked to our immune system and looking for solutions to limit the threat of the novel coronavirus to our health.



# New training courses from the Training Subcommittee

**Dr. Chun Bon LAW**

Chairman  
Training Subcommittee

The training subcommittee developed the Core Medical Skill Course (CMSC) in 2019 and it became mandatory for Basic Physician Training (BPT) in 2020. This year, despite the disruption of COVID-19, the subcommittee will pilot two courses: the Advance Medical Simulation Course (AMSC) and the General Medicine Quarterly Update (GMQU). AMSC targets higher physician trainees of Advanced Internal Medicine (AIM) while GMQU provides a platform for dissemination of practical knowledge of general medicine that will benefit practising trainees and fellows of our college.

There is no doubt that medical education is the key to deciding the quality of graduating fellows and the services they rendered. Mentorship alone is considered inadequate for the purpose. It is the mission of the subcommittee to develop structured courses to complement the training needs of trainees, fellows and trainers alike.

## Advanced Medical Simulation Course (AMSC)

**Dr. Candy Hoi Yee KWAN**

Unlike CMSC which covered bed-side procedural skills and knowledge on procedural sedation, AMSC focused on areas that were not usually covered by textbook or fellowship examination, yet highly relevant to everyday practice, such as advanced clinical management, medical ethics, and advanced communication skills. These were best illustrated and conducted by scenario-based simulation training, which could provide a realistic and immersive experience in the context of different clinical settings that mirrored real-life work.

A working group on AMSC was formed in 2019, chaired by Dr Colin Lui and co-chaired by Dr Candy Kwan, representing AIM board and Coordinating Committee in Internal Medicine respectively. With a number of enthusiastic physicians (Dr LT Chan, Dr Frankie Choy, and Dr Erica Leung) as members and the support from Hospital Authority Head Office, the working group collaborated with the Hong Kong East Cluster Training Centre to commission AMSC. The first full-day pilot course will be held in 2021/22. Depending on the result of the pilot course, it may become a mandatory course for AIM in the future.

Small class teaching is preferred for scenario-based simulation training. For the course to succeed in the long-term, the college needs to expand the current pool of qualified simulation trainers. We encourage our registered trainers to attend simulation train-the-trainer courses and actively participate in our various teaching activities.



# General Medicine Quarterly Update (GMQU)

**Dr. Andrew Lung Tat CHAN**

All of us are flooded with medical knowledge nowadays. It is hard for our trainees and fellows to dissect out knowledge relevant to their practice in an effective manner amidst their busy clinical schedule. GMQU aims to promote professional interest and enrich our trainees and fellows with up-to-date knowledge in the realm of general internal medicine. The course will focus on the practical aspect of day-to-day clinical practice and its underlying rationale. In addition, the college hopes to engage more young fellows to foster their interest in training and to raise the interest in general medicine among our trainees and fellows.

There will be two pilot sessions on the following topics:

Date	Time	Topics
<b>12 April 2021 (Monday)</b>	1730-1900	Movement Disorders Emergencies
		Practical Approach to Insulin Therapy
<b>10 August 2021 (Tuesday)</b>	1730-1900	Important Headache Disorders not to be Missed
		Pulmonary Function Tests Interpretation

Participants can join the live stream sessions, and there will be time for Q&A with the speakers via a chat function. Recordings of the live stream sessions will be uploaded to the college website for 60 days. All the trainees and fellows can watch and review the sessions at their convenience. The CME point will be 1.0 for live stream sessions per hour and 0.5 for online reviewing.

Please give us feedback on the course so that we can seek improvement to better meet the needs of the practising trainees and fellows.



# SIMULATION and CYCLING

Dr Tak Cheong CHEUNG

The typical setup of an indoor smart trainer. A smart trainer, a bike and an iOS or Android device. Here the smart trainer was connected to Apple TV and HDTV for best visual effect.

The CoVID-19 pandemic is an unprecedented global disaster with unimaginable consequences on various fronts like economy, aviation industries, healthcare systems, global politics, disputes in vaccine development etc. Lockdown measures in local communities limit the spread of the virus, but also limit the chance of physical activities, resulting in a major health setback in patients with medical problems, especially musculoskeletal problems.

I am a very active and sportive person, I play for the HKMA football team, a not so decent tennis player, and I am very much into cycling in the past few years. Team sports are restricted as part of the social distancing measures, the only sports I can still enjoy is cycling.

In Hong Kong, it is easier to participate in jogging, hiking, rather than cycling. You need gadgets, time, storage and desirable road conditions to ride outdoors, but it is interesting to note the global sales of bikes increased by 2-3 fold in the past 1 year. Of course there is risk of cycling on the road, that's why most road bike cyclists do it in the early mornings. Stationary bikes have been there for decades, but with advancing technology, we can now make indoor training more fun and enjoyable.

Cycling is one of the sports which incorporates lots of sports physiology, biochemistry and physics, and this is one of the reasons that I am so into it. With the significant drop in price of power meters, we now can directly measure and visualise how hard we pedalled, and this power output is the sole driving force of the bike. Energy consumption can be easily estimated by measuring the total power output. We are familiar with the training intensity with different heart rate zones as a percentage of maximum heart rate, but in cycling, we are using power zones which are categorised by the percentage of your FTP (Functional Threshold Power) which is proven to be more target (endurance, sprinting, VO2 training etc) specific. FTP is effectively a measure of the maximal power one can hold for an hour, measured in watts. This is the most often used measure of cycling fitness, when combined with bodyweight and heart rate data. The ideal situation is that FTP has gone up, weight has gone down and heart rate to produce the same power is lower.

The conventional stationary bikes you see in most gyms are a chunk of metal with displays of speed, cadence, heart rate and sometimes with power output. Nowadays we have compact smart trainers and apps to let one join specific training programs, recreational group rides and competitive races. A smart trainer is a tool you mount your bike on that offers resistance like a normal trainer, but with the added benefit of allowing the

resistance to be controlled by cycling apps such as Zwift. The boom of indoor cycling apps such as TrainerRoad, Zwift and The Sufferfest have created a cottage industry of smart trainers for the simple reason that the tool makes indoor cycling so much more engaging. When riding a virtual course on a smart trainer, if you begin to climb a hill the resistance ramps up and you have to pedal harder or change to an easier gear, just like when riding outdoors. You will then see your avatar cruise in the routes in the apps, your speed will be calculated based on your body weight, gradient and power output, just like playing a video game.

If you ride in a group, the resistance gets easier simulating a draft, and harder when you are alone in the wind. You can join someone from the other end of the world or create an event with your friends to have fun together.

Training programs using a specific power zone can only recently become available with the advent of smart trainers. This is called ERG mode, it is where the trainer holds a given resistance and holds you to certain power output during the structured workout, no matter how you change your cadence and gear, it will adjust for you and you don't have to worry about gauging or pacing your effort.

Cycling indoors with smart trainers is now becoming a trend not only because of the lockdown, but also in countries with bitterly cold winters. This helps to keep the fitness of amateur and pro-like cyclists throughout the years.

Despite all the benefits of indoor trainers, the best part of cycling is still enjoying riding in open space, having a sip of coffee and chatting with friends. So, the key reasons to use a smart trainer is to make indoor cycling much more fun and more productive. Hopefully with the roll-out of global vaccination programs and collective effort, this COVID pandemic will end in no time.



Avatar in game with constant update of power output, heart rate, cadence, duration, distance, speed etc.

# A Sharing on My Venture into Research

**Dr Jacqueline SO**

Secretary, Young Fellows' Committee

Significant medical breakthroughs such as the discovery of triple therapy for peptic ulcer disease, non-invasive pre-natal test for chromosomal abnormalities and targeted therapy for non-small cell lung cancer are developed by Hong Kong researchers. While Hong Kong is renowned for top notch clinical care, we are also an important force in the research field leading and contributing to the continuous medical advancement the world is seeing. Starting out as a physician-in-training, I have never thought of joining the research community. Yet with the encouragement and guidance of my seniors during my training at Prince of Wales Hospital, I am brought into this eye-opening world of medical research that has allowed me to grow intellectually.

## My first experience

I was first introduced to research by a professor when I was a second-year medical doctor. With limited prior experience, I admittedly had a challenging start learning to collect, cleanse and analyse data, write a manuscript, study protocols and reviews, and present findings in a concise and effective manner. It was no easy task and required both passion and commitment to persist along the way, but as with our journey of becoming a physician, believing the impact we could make on improving patients' lives with our research is the biggest motivator to keep us going. The process of conducting a research is not a smooth sailing one and is filled with ups and downs. Publishing statistically important findings and making our way to international conferences are surely uplifting, and the opportunity to interact and receive constructive feedback from the world's best minds is clearly a mind-blowing experience that I have never imagined having before. On the less rosy side as we roll our sleeves up for the ground work, there

will be trials and errors, flaws in study design, and at times, a total rework of our thesis and study. Yet, with the clear and common goal of improving standard of care in sight, the team is always resilient in solving every obstacle we encounter and continue on with our search of cure. I felt compelled to invite all of you to partake in research.

## Do I have time for research?

We all asked the same question – do I really have time for doing research when I already have to balance the hectic work schedule and personal commitment? We all live a busy life and the idea of adding research into your routine could sound daunting at first, but after all, it all comes down to effective time management which a lot of you are likely already an expert in. The satisfaction from finding a solution to a clinical problem or knowing the far-reaching impact a research could have is parallel to none. Get started with a cause that is dear to your heart, and it will keep you motivated in going through the challenges along the way. And whenever a milestone is reached, the joy will trump all the hard work you have put into it.

Looking ahead I am excited to continue working with our devoted research team and contribute to the discovery of medical knowledge. I am humbled by the dedication and professionalism of our researchers and I am keen to sharpen my critical thinking and analytic skills with their guidance and leadership. If you are interested in doing medical research, don't hesitate and start today. You are bound to experience rewarding and fulfilling moments by embracing yourself with this meaningful work.