

Prof. Kian Fan Chung: green healthcare is a very important concept

Received: 20 November 2017; Accepted: 10 December 2017; Published: 15 December 2017.

doi: 10.21037/jhmhp.2017.11.04

View this article at: <http://dx.doi.org/10.21037/jhmhp.2017.11.04>

Dr. Kian Fan Chung (*Figure 1*) is Professor of Respiratory Medicine and Head of Experimental Studies Medicine at National Heart & Lung Institute, Imperial College London, and is consultant physician at the Royal Brompton & Harefield NHS Trust, London, UK.

His current interests focus on developing precision medicine and personalized treatments as applied to non-communicable respiratory diseases with a particular interest in asthma and chronic obstructive pulmonary disease. His major interest is on the role of gene-environmental factors including pollution and pathogens on the innate and acquired immune responses that impact on inflammatory and remodeling pathways in the airways and lungs. He has also studied the role of airway smooth muscle and effects of oxidant stress on muscle function, on the energetics of airway smooth muscle function and on the mechanisms underlying corticosteroid resistance. He is also researching on the impact of environmental pollution and nanoparticles on the lungs and in lung disease. The translational aspects of this work relate to the chronic airflow obstruction and inflammation seen in asthma and chronic obstructive pulmonary disease (COPD) and finding new treatments, particularly related to antioxidant and anti-inflammatory therapies. He has also an interest in the cough hypersensitivity syndrome and new antitussives.

At the 2017 International Green Healthcare Forum held in the University of Hong Kong-Shenzhen Hospital on October 29, Prof. Chung gave a lecture about “Managing the global burden of non-communicable diseases: from the perspective of green healthcare”. It’s our honor to interview Prof. Chung. We greatly appreciated that he found time to share his experiences and perspectives with us (*Figure 2*).

The 2017 International Green Medical Forum was made possible through the activity and support of the Department of Medicine, Respiratory & Critical Care Medicine at University of Hong Kong-Shenzhen Hospital. Full programme funding support was provided by the



Figure 1 Prof. Kian Fan Chung, MD, DSc, FRCP.



Figure 2 Prof. Kian Fan Chung: green healthcare is a very important concept (1).

Available online: <http://www.asvide.com/articles/1894>

Shenzhen Municipal Health and Public Health Authority “Sanming Project” as part of their “Livelihoods Project”, under the designated title grant “The National Heart & Lung Institute, Imperial College London—Integrated Airways Disease Clinical Research Team (*Professor KF Chung)”. This fund was awarded to Dr. Christopher KM

Hui, The University of Hong Kong-Shenzhen Hospital and the National Heart & Lung Institute, Imperial College London in early 2017.

The primary investigators and lead coordinators for this programme include: Professors KF Chung, PJ Barnes, Mary SM Ip, Martyn R Partridge, Ian M Adcock, and Drs. Christopher KM Hui, Judith CW Mak, Pank K Bhavsar and Charis Michaeloudes.

JHMHP: Your speech topic is about green healthcare. In your opinion, what is green healthcare?

Prof. Chung: Green healthcare is a very important concept. It means delivering healthcare as best and efficient as we can with all resources we have with minimal interference or damage to our external environment. It is becoming more and more important to consider green healthcare as a part of delivery of healthcare.

JHMHP: Is there any challenge to practice green healthcare, such as in treating asthma?

Prof. Chung: Yes, there is challenge in terms of practicing green healthcare to any diseases. We have to deliver healthcare to maximum number of patients. But currently there are limited resources and limited means that we can do, which is the challenge. However, once problems are identified, they can be tackled. The fact that respiratory physicians have acknowledged the contribution of chlorofluorocarbon propellants in inhalers to damaging the protective ozone layer and replaced it with the less damaging hydrofluoroalkanes is an example of a challenge that has been resolved. Now, our challenge is how to dispose of the millions of used inhaler devices and canisters without too much adverse effects on the environment.

Let's take treating asthma as another example. As we all know, there are guidelines that most doctors use. Those guidelines help doctors to deliver the best care and treatment for most patients with asthma in a uniform approach. It's important for us to get maximum patients as satisfied as possible. For example, we give emphasis on self-management plans when treating asthma. That could be an important aspect because patients with asthma often get worse suddenly. If we teach patients how to cope with these situations, it would be a very useful step for patients

to help themselves and to reduce their need for hospital treatments.

JHMHP: Your research interests include lung diseases and respiratory diseases. What researches are you and your team doing?

Prof. Chung: One of my research interests is asthma. I'm pretty interested in patients with asthma, especially those with severe asthma who do not respond to the asthma treatment that we have at the moment. I would like to understand whether there are different types of asthma within this group so that we can target the right treatment to different types of asthma. I am a firm believer of the fact that the use of the various omics platforms will lead to a better classification of different types of asthma for which we can develop specific targeted treatments. This is what we call precision medicine, which is a very exciting area to be involved in. I am also continuing to work on the effects of air pollution on the lungs, particularly in patients with asthma and COPD. It was and still is necessary to develop new medicines for treating asthma.

JHMHP: Why were you interested in studying asthma at the very beginning?

Prof. Chung: I specialized in respiratory medicine at a very stage of my medical career and at that time the treatments for asthma were very limited. The introduction of inhaled steroid therapy at that time with the spectacular results that it had at that time attracted me to work in the field of airway disease. There is still a lot to discover in this field.

JHMHP: Do you have any suggestions for young doctors?

Prof. Chung: My suggestion for young doctors who haven't decided what they want to do and what specialty they want to choose in their professional career is that they should decide it by themselves. Young doctors should look around and experience the various specialties and find what most satisfies them and gives them a challenge. Certainly, they should seek advice from their mentors and other established people in the specialties they are interested in. At the end of the day, they will need to decide in their own mind. There need to be something that challenges them.

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the editorial office, *Journal of Hospital Management and Health Policy* for the series “Meet the Professor”. The article did not undergo external peer review.

Conflicts of Interest: The authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/jhmhp.2017.11.04>). The series “Meet the professor” was commissioned by the editorial office without any funding or sponsorship. Lilian Xie and Cecilia Jiang report that they are full-time employees of AME publishing company (publisher of the journal). The authors have no other conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related

to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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(Science Editor: Lilian Xie, Cecilia Jiang, JHMHP, jhmhp@amegroups.com)

doi: 10.21037/jhmhp.2017.11.04

Cite this article as: Xie L, Jiang C. Prof. Kian Fan Chung: green healthcare is a very important concept. *J Hosp Manag Health Policy* 2017;1:12.