



Nurturing Future Leaders

Each year 30 undergraduate students are selected to join the Leadership Development Programme (LDP). Designed to nurture the leadership potential of elite students at CUHK and to prepare them to meet the challenges and opportunities of the new era, this 24-unit comprehensive programme comprises four modules: Leadership Potential, Civic Education, Ethical and Aesthetic Education and Non-formal Activities.

This year, two pharmacy students are members of the elite group. Ms. Chan Yat Hei, a Year 3 student, remarked that this program has enabled her to "... gain insight to policy making in Hong Kong, as well as cultural and social development of the world." She also felt that "... through interactive and diversified learning process, the LDP has equipped me as a potential leader and better prepared me to be a proactive pharmacist." Mr. Franco Cheng, a Year 2 student, shared the same sentiment. Moreover, he gains a better appreciation of the role of change for a better tomorrow and the pivotal role leadership plays in bringing about change.



Mr. Franco Cheng (Year 2)



Ms. Chan Yat Hei (Year 3)

Director's Message

Working for a Healthier Hong Kong: Drug Safety and Affordable Medicine

"Working for a Healthier Hong Kong" is an integral part of CUHK School of Pharmacy's mission for the past 15 years. In 2007-08, our school shared the top spot with the School of Nursing in overall programmatic quality among the 12 academic programs reviewed at the university.

The School was more active in community outreach in the past two years, including organizing conferences to shape the development of emerging drug- or health-related issues. In the March conference on primary health care, a more proactive role for pharmacists in the restructured health care team was examined. The lively discussions and provocative ideas were summarized in a response to the health care financing consultation document "Your Health, Your Life" (see p. 2 for details). In the July conference on biopharmaceuticals, manufacturing, handling, prescribing, and safety issues were discussed. Representatives from the Chief Pharmacist Office and from the Department of Health were among those in attendance, and several participants offered their views on "generic" substitution of these structurally complex pharmaceuticals.

The third event is the International Biotechnology Camp 2008, which will be held on October 24-27. Designed to bring together the next generation of prospective leaders in biotechnology from around the world, this annual event serves as a platform for senior postgraduate students to experience the synergy of cutting edge science, business acumen, and appreciation of diversity in cultural heritage and professional expertise to develop innovative medicine (www.pharmacy.cuhk.edu.hk/news/4_workshop_3.php).

The capstone event for 2008 will be the Gala Dinner on December 5th at the Conrad Hotel, which I invite all of you to attend. Aside from taking stock in the School's past contributions to health care in Hong Kong, we will unveil a plan to establish the School as a center of excellence in drug safety and in assuring the public's access to cost effective medicine. With an infusion of resources and single-mindedness of stakeholders to an aggressive agenda, the School should be able to achieve the critical mass of personnel and talented students it needs to create an infrastructure central to the pursuit of the following three priorities:

1. Curriculum reform to foster personalized learning: By August 2009, we intend to have completed a draft revised curriculum that promises to prepare our graduates to be problem solvers; critical thinkers and decision makers who are skilled at integrating and sharing information as well as at identifying and managing risks. Students can exercise the option to design their own program of study consistent with career paths of their choice.
2. Innovations through research and discovery: My goal is to position our School as a Center of Excellence in Drug Safety and Cost Effective Medicine by August 2010. The coming year will be devoted to solidifying current research strengths in drug delivery, pharmacoeconomics, and community health and to adding to that strength through collaborations in drug discovery, nanotechnology, genomics, imaging, informatics, and epidemiology.
3. A culture of life long learning: By 2010, new masters' degree programs in regulatory science, pharmacoeconomics, and drug development will be launched to meet the growing demand for technical talent to work in the nascent drug industry in China. Our esteemed Master of Clinical Pharmacy program will evolve to be attractive to other health care professionals as well. A post-baccalaureate Doctor of Pharmacy program will be considered in earnest. Our alumni should consider their alma mater as the institution of choice to fulfill their quest for life-long learning both on demand and in person.

I am optimistic about the future of our School and especially the pharmacy profession in Hong Kong. I believe we can differentiate our school by the quality and breadth of our forward looking programs of study and research and by the impact our graduates are capable of making in society. With your support, we can realize that cherished goal by 2012.



Primary Health Care: A Symphonic Approach

Digest of primary health care conference in the context of the consultation document **“Your Health, Your Life”** (Abstract)

On 14 March 2008, some 300 delegates attended a conference at The Chinese University of Hong Kong entitled “Primary Health Care: a Symphonic Approach”.

Pharmacists in Hong Kong represent a large body of hitherto under-utilized talent, and are a valuable community knowledge resource for the healthy and the sick. Given that the work of primary care doctors and nurses is likely to shift more towards supporting people with serious and complex health problems, community pharmacy can readily assist in this transition. Its role should be extended to include self care support, risk factor management, and health care provision for common conditions.

Pharmacists should work constructively with other health professionals with a view to bringing the most appropriate and efficient knowledge and practice to bear on patient care in community and hospital settings. The health care team’s acknowledged drug experts, they are well positioned to win the confidence and cooperation of patients, providing quality information and ready access to beneficial, cost-effective therapy.

The need to develop basic models for primary care service was a major assumption of the conference, and it was felt that further elaboration of such models and their delivery was urgently required now that the public and professional mind had been engaged anew by the Government’s consultation process.

Any adequate discussion of the specifics of supplementary health care financing would need more economic data than the consultation document had offered. It was also felt that a single financing model might not be adequate to address the full range of health care needs, e.g. the financing of care for acute conditions might need to be very different from that for chronic conditions, not to mention other variable elements.

Public confidence in the quality of health care needs building up and quality assurance is one area where a clear sense of direction from the Government is particularly important. This will require the provision of suitable training and the implementation of appropriate registers.



The conference underlined the value for each health care profession of looking afresh at its own role. Each should review its formal place within the health care team as a whole, working constructively with other health professionals to bring the most appropriate and efficient knowledge and practice to bear on patient care in community and hospital settings.

The School of Pharmacy of The Chinese University of Hong Kong is now preparing to build on the significant learning experience and shared insights gained from this foundational conference. It will do so in ways that echo the sincere aspirations of delegates for a better primary health care deal for the community, and will draw on evidence based studies and clear policy formulations to help shape much needed transformations into sustainable practice.

The School will be airing these and other issues as part of its ongoing pursuit of action for optimum health reform and looks forward to working constructively with the Food and Health Bureau, with professional associations, and with colleagues from every branch of health care in an effort to put health care provision in Hong Kong on a footing that is financially and conceptually sound—as well as being socially and culturally workable.

The team approach to primary health care is a much undervalued area of study and concern in Hong Kong. The School has taken an important step in broaching it across a number of major disciplines, and it now looks to the Government to enter into significant discussions of the crucial role of such an approach to health care reform and primary health care delivery models.



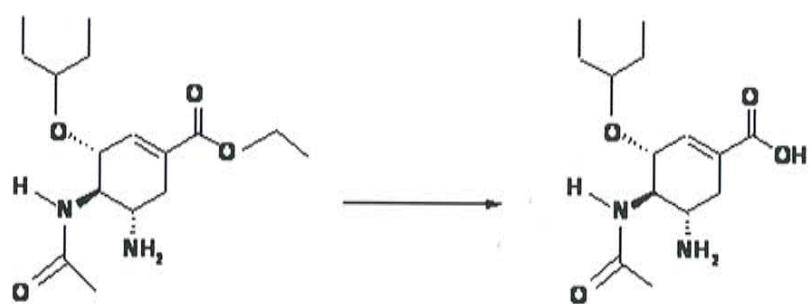
For full version, please visit: http://www.pharmacy.cuhk.edu.hk/news/4_conference_9.php

Potential Interaction of Oseltamivir and Chinese Medicine Formulae – Preliminary Investigation in Rats

Since last decade, it is frequently reported that herb-drug interaction, no matter under which mechanisms, is a potential contributor to the altered therapeutics of drugs. Nowadays, there is no more surprise to see cautions for the potential herb-drug interactions appeared in the package labeling and/or inserts of a number of medications. Since the identities of the active components and/or the quantities of each active component in the herb extract are not always fully specified, most of the herb-drug interactions were reported mainly based on pharmacokinetics or pharmacodynamics changes of the drugs rather than herbs/herbal components. Prof. Zuo was trained as a BSc and PhD in Pharmaceutical Sciences and has had over 20 years experience in the biopharmaceutics and pharmacokinetics fields. Since she joined CUHK in year 2000, Prof. Zuo have been actively involved in the investigation of the biopharmaceutics and pharmacokinetics profile of active flavonoids components of Traditional Herbal Medicine, herb-drug interactions, in-vitro and in-vivo standardization of Traditional Chinese Medicine products.

In recent years, effective prophylaxis and treatment for avian influenza represent an important health care goal in Hong Kong. At present, the Hospital Authority (HA) Central Committee on Infectious Disease and Infection Control Branch Centre for Health Protection recommended Oseltamivir for prophylaxis and treatment of avian influenza. In addition, a panel of Chinese Medicine experts from HA and the Task Force on Herb-Drug Interaction Research has recommended four Chinese Medicine formulae for the prophylaxis and treatment of influenza with Oseltamivir. It is likely that many Hong Kong citizens will be prescribed with a combination of Oseltamivir and Chinese Medicine formula for avian influenza if there is an outbreak. The antiviral effect and clinical safety following normal dose of Oseltamivir is well established, however, its safety and antiviral effect in combination with Chinese Medicine is unknown. In 2007, with a generous support from HA, a pilot investigation on the potential interaction of oseltamivir in combination with 2 most recognized CM formulae (CM F1 and CM F2) for avian influenza as determined by a CM Expert Panel has been conducted in rat by the research group of Prof. Moses Chow and Joan Zuo. The preliminary results did imply a reduction of antiviral activity after combination treatment. Further studies on the significance of the pharmacokinetic interactions in human subjects as well as antiviral effect with the combination of O and CM F1 or CM F2 are needed.

Details of the above findings will be presented in the Hong Kong Pharmacy Conference 2008.



Oseltamivir

Oseltamivir carboxylate



Flos Lonicerae



Fructus Forsythiae

Some of Prof. Zuo's on-going projects are:

- "A bio-activity guided in vitro pharmacokinetic method to improve the quality control of Chinese Medicine" funded by Innovation and Technology Support Fund (Tier 3) in 2007.
- "Interactions between UGT isoenzymes and MRP transporters during the oral absorption process of Baicalein" funded by RGC Earmarked Grant Scheme in 2007.
- "Bioavailability- Formula for Cardiovascular Tonic Project" funded by Area of Excellence Scheme – sustained funding for research in Chinese Medicine and further development, in 2008.

Community Pharmacists in Primary Health Care

The local government has defined primary health care in the current Health Care Reform Consultation Document as "the first point of contact individuals and the family have with a continuing health care process and constitutes the first level of care in the context of the health care system." Based on the above definitions, community pharmacy service should be one of the core building blocks of the primary health care. Regretfully, in the government consultation document, only primary medical care was discussed. The government indeed has excluded the community pharmacy service that is widely available in Hong Kong.

The first step to put pharmacists in the primary health care is, to educate the public early about what a pharmacist is doing. Currently, most of the public assumed that the general practitioners or family doctors are their ONLY primary health care. In fact, this is just a misconception. Community pharmacists are not doing something overlapped with general practitioners. Due to the growth of ageing population, the burden on secondary health care is becoming huge. As a result, the consultation time in clinics of general practitioners is usually short with charge a hundred plus more for 2 or 3 days medication. As a relief, there is an urgent need of primary health care that promotes self care and offers chronic disease management. As a pharmacist, I have no doubt that community pharmacists can fill such gap.

Pharmacists are well-trained and able to provide education on disease prevention and management, drugs, supplements, and even home diagnostic device, as longer consultation time can be provided to patients. Therefore, for sure that pharmacists are the important elements in the primary health care by providing free consultation, low charge of the over-the-counter medication and better accessibility.

Traditionally, private community pharmacies (not pharmacists) have done very little in promoting the professional image of pharmacists, as they only focused on profit. With the hard work from various pharmacist associations, especially Practising Pharmacists Association (PPA) and Drug Education Resources Centre (DERC), the community pharmacists paced their first steps in working with the public sector. Apart from that, the Hospital Authority Drug Formulary certainly creates the biggest impact to the business by providing profitable opportunities to the community pharmacy owners, especially large in the chain setting.

To prepare and cater for the increase number of prescriptions, the number of chain pharmacies has nearly doubled in these few years, also with extended office hours. The chain pharmacists are well dressed for clear and professional identity. Training and guidelines are provided to ensure the services delivered are up to standard. Stores are designed to offer a nice and comfortable environment for pharmacists to deliver pharmaceutical care. Market competition also results in massive promotion on community pharmacies and pharmacists. The public awareness on the concept of pharmacist-delivered primary health care service is much increased. This is a win-win situation: those which can gain profit is able to further expand, while more patients can receive comprehensive primary health care service, and secondary health care burden is then relieved. The expansion of chain stores also influences the development of some independent drug stores that adapted models have been found in the street.

But is it good enough? To make community pharmacy becomes a well known point for primary health care, we are facing two challenges: sustainability and consistency. No matter how much energy and empathy we have, community pharmacists cannot do much without the support from the business. Furthermore, there are still many community pharmacies which are not doing (or cannot do) much patient care services, although many of their pharmacists have actively participated in public education programs or old age home projects conducted by the pharmacist associations. Such inconsistency between community pharmacies may ruin the primary health care models established recently.

These are difficult to resolve unless there is another big financial impact to the pharmacy owners. In UK or US, many of the pharmaceutical care models are financially supported by the government or insurance. This echoed with the words of a well-known medical profession that non-medical healthcare profession can take place in the system only if their services are subsidized by whatever means, otherwise the patients won't pay for it. I don't totally agree on it, but in certain extent, that's true.

Health insurance may be our way out. The healthcare financing reform may touch on it. But will it really influence us? More negotiations with government, politicians and insurers are needed. The associations have tried but the results are usually neutral in nature, probably because our group is small and voice is inadequate. I am neither optimistic nor pessimistic towards the development of primary health care in community pharmacies, but I know we have a passive role in it.

Meanwhile, "get prepared". This is the golden phrase I learned when I am a little intern. No one knows when and how the evolution comes. Community pharmacists should well equipped themselves and seeks opportunities to deliver pharmaceutical care. At least, we will gain more public recognitions, which are the essential pushing forces for such evolution.



Michael Yim Tsz-Kok

- Graduate of Year 2000
- The current vice-president and the ex-president of CUSOP Alumni Association
- Senior Pharmacist (Drug Information)

