



Title	Editorial. The University of Hong Kong portfolio of basic research on emerging infectious diseases.
Author(s)	Wong, V; Collins, RA; Johnston, JM
Citation	Hong Kong Medical Journal, 2009, v. 15 n. 6, suppl. 9, p. 3
Issued Date	2009
URL	http://hdl.handle.net/10722/129315
Rights	Creative Commons: Attribution 3.0 Hong Kong License

After the outbreak of severe acute respiratory syndrome (SARS) in Hong Kong in 2003, the *Research Fund for the Control of Infectious Diseases* (RFCID) was established to encourage, facilitate and support research on the prevention, treatment and control of infectious diseases, in particular emerging infectious diseases, so as to formulate policies. Over the course of 5 years, researchers in the University of Hong Kong completed a portfolio of basic, epidemiological, public health and clinical research on a diverse range of potentially emerging and re-emerging infectious diseases, including SARS, influenza, tuberculosis, and antibiotic-resistant bacteria. Evidence-based knowledge generated from these projects has helped in health policy formulation and health care services delivery. In this issue, a representative selection from the portfolio is presented. Three projects are highlighted owing to their contribution to knowledge on emerging and re-emerging pathogens and their impact on patient care.

SARS was the first newly emergent communicable disease epidemic of the 21st century, eventually infecting 8098 individuals around the world, of whom 774 died. Leung et al¹ used an integrated dataset including information from all 1755 reported local cases to generate the definitive epidemiological parameters of the epidemic. Predictors of SARS-related mortality were also determined. The analysis provides a summary of the time-course and patient locations during the outbreak in Hong Kong and underscores the value of having a centralised systematic data registry in place, so as to deal with SARS or any other emerging or re-emerging infectious disease epidemic.

The evolution of a pandemic human influenza strain from reassortment of human influenza virus genes with those from avian influenza H5N1 is of importance for public health. In a telephone survey of 986 Chinese adults, Fielding et al² determined population knowledge of risk and estimated degree of influenza hazard from live poultry sales at the height of the 2004 Asian avian influenza epidemic. The general public perceived the risk of buying live chickens as moderate. Buying live poultry was strongly predicted by the erroneous belief that cooking is the best means of protection from avian influenza. Cooking protects from infection by eating, but not from infection through contact prior to eating. This study has implications for public health groups seeking to increase preventive practices to control possible avian influenza outbreaks.

AmpC beta-lactamases are clinically important cephalosporinases encoded on the chromosomes of many of the *Enterobacteriaceae* where they mediate resistance to cephalothin, cefazolin, cefoxitin, most penicillins, and beta-lactamase inhibitor and beta-lactam combinations. Ho et al³ studied the production of AmpC and extended-spectrum beta-lactamases (ESBLs) in blood isolates of *Enterobacter* spp isolated during 2000 to 2002 in two general regional hospitals. They found that application of standard criteria designed for ESBL detection in *Escherichia coli* and *Klebsiella* spp would lead to many false-positive results in *Enterobacter* spp. Modifying the screening conditions increased test specificity. This study is important locally, as it shows that the prevalence of ESBL among *Enterobacter* spp in Hong Kong is high and that their beta-lactamase content is diverse.

We hope you will enjoy this selection of research dissemination reports. Electronic copies can be downloaded from the Research Fund Secretariat website (<http://www.fhb.gov.hk/grants>). Researchers interested in the funds administered by the Food and Health Bureau may visit the website for detailed information about application procedures.

Supplement co-editors

Victoria Wong

Dr Victoria Wong
Associate Consultant
(Research Office)
Food and Health Bureau

RA Collins

Dr Richard A Collins
Scientific Review Director
(Research Office)
Food and Health Bureau

Janice Johnston

Dr Janice M Johnston
Consultant
(Research Office)
Food and Health Bureau

References

1. Leung GM, Ho LM, Lam TH, Hedley AJ. Epidemiology of severe acute respiratory syndrome in the 2003 Hong Kong epidemic. *Hong Kong Med J* 2009;15(Suppl 9):12-6.
2. Fielding R, Leung GM, Lam TH, Lam WW. Knowledge of risk and self-protection practices and the degree of influenza hazard from live poultry sales. *Hong Kong Med J* 2009;15(Suppl 9):42-5.
3. Ho PL, Yam WC, Tsang KW, Lai WM. Detection and characterisation of extended-spectrum beta-lactamases among blood stream isolates of *Enterobacter* species in Hong Kong. *Hong Kong Med J* 2009;15(Suppl 9):4-5.