

## Editorial

# Paediatric Infectious Diseases and Immunology

### Hong Kong Journal of Paediatrics

香港兒科醫學雜誌 (New Series)

An Official Publication of

Hong Kong College of Paediatricians &

Hong Kong Paediatric Society

c/o Hong Kong College of Paediatricians, Room 808,

Hong Kong Academy of Medicine Jockey Club

Building, 99 Wong Chuk Hang Road, Aberdeen,

Hong Kong.

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We will focus on one subspecialty at a time for the next few issues of our Journal. The purposes are two-fold, to ensure submission of more high-quality papers and to explore the future of that subspecialty in Hong Kong.

The first subspecialty to be under this scrutiny is Paediatric Infectious Diseases and Immunology. Paediatric subspecialties can be based on organ-system, such as neurology and cardiology, or on age division, such as neonatology and adolescent medicine. However paediatric infectious diseases and immunology is unique as a subspecialty because it is based on the interaction between the host immune response and the elements of the environment such as microbial agents and allergens, which transcends the artificial boundaries of both organ-system and age. This subspecialty is full of new and old challenges, matched admirably by her scientific vigour. The issues to be dealt with can range from molecules and genes to patients and public health, from rare and yet illuminating clinical disease to common issues such as vaccination and allergic reaction. New advances in immunology and allergy are reported every month with emerging and reemerging infectious diseases such as HIV and avian flu hitting the headline regularly.

The articles in this issue can serve to illustrate the range of challenges this subspecialty will address, including delay in diagnosis of rare primary immunodeficiencies,<sup>1</sup> common concerns about allergic reactions to vaccine,<sup>2</sup> epidemiology and treatment strategy for a rheumatological condition<sup>3</sup> and the continuing quest in how to improve outcome in septic shock.<sup>4</sup> Two recent articles from Hong Kong published elsewhere illustrate the vigour of this subspecialty at both the molecular and public health levels. The pathophysiology of the avian influenza (H5N1) infection in human has been partially defined to be due to the enhanced production of tumour necrosis factor alpha triggered by the H5N1 virus.<sup>5</sup> The next question is why adults are more likely to succumb than the young since five of nine adults died compared to one of nine children under 12 in the avian flu crisis. Another paper described the disease burden of influenza in Hong Kong children being even higher than that in USA,<sup>6</sup> raising important questions about public health policy on treatment cost due to influenza and hence how to use influenza vaccine most cost-effectively.

ISSN 1013-9923

The above examples testify to the potential of this subspecialty in Hong Kong and the broad challenges that it can address. As a subspecialty, it has the unique characteristics that transcends organ-system and age as well as firmly integrated with science. The task now is how to ensure the development and sustainability.

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