

Think globally, act locally

Akihiro Morikawa*

Gunma University & Kitakanto Allergy Institute, Gunma 376-0101, Japan

This issue of *Asia Pacific Allergy* (*Asia Pac Allergy*) will be released at the beginning of its third year of circulation. *Asia Pac Allergy* is just two years old yet very active and on the way to developing into a leading publication in allergic disease research. We thank all the authors and readers for their efforts and contributions. Our current issue features two valuable reviews on the topics of atopic dermatitis and food allergy as well as interesting original articles on immediate-type allergy.

Numerous studies have investigated trends in the occurrence of allergic disorders with recent reports showing that the rate of immediate allergic diseases appears to have doubled over the last 15-20 years. Increases in the number of allergic patients have been reported in countries all over the world. As Thalayasingam and Lee [1] pointed out in the previous issue of this journal, the prevalence of asthma is different in every country. The common environmental risk factors for allergic diseases, especially bronchial asthma, are air pollution, environmental tobacco smoke, nutrition, allergen exposure, family size, infection and hygiene. However, much controversy surrounds the role that each of these risk factors play in the development of allergies. Isolating the effects of environmental risk factors is complicated by the fact that environmental situations differ from country to

country and that there are genetic differences between races.

From the available studies of epidemiology and heritability of allergic diseases, it is clear that allergic diseases are complex, and the interaction between genetics and environmental factors may play a fundamental role in the development of IgE-mediated hypersensitivity and the subsequent development of clinical symptoms. Epigenetics is a highly sophisticated biological system that regulates the utilization of genomic information by posteriorly modifying/regulating genomic DNA diseases such as allergies involve multiple genetic and environmental factors and epigenetics is drawing attention as a regulatory mechanism that connects these 2 factors [2]. Prescott pointed out that allergic diseases are one type of chronic non-communicable diseases (NCDs) and a common feature shared by these diseases is chronic low-grade inflammation. It is a major global challenge in the 21st century [3]. We need to think and study the epidemiological changes of allergic diseases on a global scale.

The prevalence of atopic allergies differs geographically. Asthma prevalence is low in developing countries, high in Western countries such as the UK, New Zealand, Australia, the Republic of Ireland and Canada and low in Asian countries such as China, Indonesia, and Taiwan. The prevalence of peanut

Correspondence: Akihiro Morikawa
Gunma University & Kitakanto Allergy Institute, 22-4
Ohmamama, Ohmamamacho, Midori-shi, Gunma 376-0101,
Japan
Tel: +81-27-732-6022
Fax: +81-27-730-7781
E-mail: morikawa@gunma-u.ac.jp

Received: April 4, 2013
Accepted: April 4, 2013

This is an Open Access article distributed under the terms of the Creative Commons Attribution. Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

allergies in Asia is extremely low compared to Western countries. In contrast, the prevalence of food allergies is lower in Western countries than in Asia. Considering these data, it is important to gain insight into the risk factors present in each country. We need to consider the importance not only of allergens, but also of indigenous risk factors for allergies in every country. We need to act locally.

REFERENCES

1. Thalayasingam M, Lee BW. Allergies in Asia: are we facing an allergy epidemic? *Asia Pac Allergy* 2013;3:1-2.
2. Kauffmann F, Demenais F. Gene-environment interactions in asthma and allergic diseases: challenges and perspectives. *J Allergy Clin Immunol* 2012;130:1229-40.
3. Prescott SL. Early-life environmental determinants of allergic diseases and the wider pandemic of inflammatory noncommunicable diseases. *J Allergy Clin Immunol* 2013;131:23-30.