

Immune Responses in the Host-Environment Interface - Understanding the Mechanisms of Allergic Sensitization

With this issue of *Allergology International*, there has been a change in the editorship. When the former editor-in-chief, Professor Hirohisa Saito, assumed the presidency of the Japanese Society of Allergology in June 2013, he resigned as the editor-in-chief. He had become the fourth editor-in-chief in 2005 and for eight years made outstanding contributions to the journal. In 2005, under his leadership, the Japanese Society of Allergology terminated their contract with Blackwell Publishing, through which the journal had been published since 1996, and started publishing the journal on their own. The articles in *Allergology International* began to appear in PubMed in 2006 and have been included in the data base of Web of Science since 2012. But it is of note that, more than anything else, under Professor Saito's editorship, the contents of this journal have steadily become more interesting, attracting a wider readership. Accordingly, the tentative impact factors of *Allergology International* rose from 0.28-0.57 (1999-2007) to more than 2.0 after 2008, according to the citations per document in the Scopus database.

It is a great honor for me to succeed Professor Saito as the new editor-in-chief of *Allergology International*. The next formal impact factor is scheduled to be published in 2015. *Allergology International* has both the challenge and the potential to continue to advance. The associate editors and I will do our best to extend the influence of this journal.

In *Allergology International* (AI) Vol. 62, No. 3, we have three review articles, nine original articles, and five letter-to-the-editor reports. Additionally, Professor Miyamoto has written an obituary for Prof. Alan de Weck, who passed away on April 8 this year.¹ Prof. de Weck, a long-time member of the faculty at the University of Bern in Switzerland, played a vital role in the current World Allergy Organization (WAO), the Collegium Internationale Allergologicum (CIA), and the International Union of Immunological Societies (IUIS). Many Japanese researchers worked as postdoctoral fellows in his laboratory, and his death is

a great loss to who knew him and to all of us working in this field.

The review series of this issue is entitled "Immune responses in the host-environment interface - understanding the mechanisms of allergic sensitization." Ohshima and Matsumoto have both contributed to this series.

Ohshima summarizes recent topics of the immune system of mucosal barriers.² The mucosal barriers are very sophisticated immune systems; they can mount robust immune responses against pathogenic antigens, whereas they maintain tolerance against non-pathogenic antigens. However, once the immune systems in the mucosal barriers are dysregulated, allergic diseases, such as food allergies or asthma can be the result. On the other hand, induction of immune tolerance can be taken advantage of for immunotherapy. In this review, Ohshima describes T cell subsets, dendritic cells, B cells, immunoglobulins, and commensal bacteria involved in the tolerance systems as well as how the disordering of these systems can cause allergic diseases.

The route of antigen invasion to hosts is important in deciding whether the antigen induces immune responses or immune tolerance. It is suggested, as the dual-allergen-exposure hypothesis, that oral ingestion of antigens promotes immune tolerance, whereas exposure of antigens to skin accelerates immune reactions. However, the roles of antigens exposed to skin are controversial; some evidence has accumulated showing that recurrent epicutaneous exposure to allergens is beneficial for the treatment of allergic diseases. In this issue, Matsumoto proposes the hypothesis that per-eczematous sensitization drives the allergy march, explaining this discrepancy.³

Morita contributes a review article in commemoration of his receiving the JSA Best Presentation Award 2011.⁴ Gastrointestinal food allergy (GI allergy) is defined as food allergy manifesting gastrointestinal symptoms. Since GI allergy mostly lacks serum-specific IgE antibodies, diagnosis is difficult com-

pared to that of IgE-mediated food allergies. Morita *et al.* discuss the diagnostic approaches and pathogenic mechanisms of GI allergy. Several clinical entities are included in GI allergy: food-protein-induced enterocolitis syndrome (FPIES), food protein-induced proctocolitis (FPIP), food protein-induced enteropathy (Enteropathy), and eosinophilic gastrointestinal disorders (EGID). In this review, Morita *et al.* sketch the historical background of these entities, as well as pathogenic mechanisms, clinical features, diagnostic approaches, and treatment methods.

Kenji Izuhara
Editor-in-Chief, Allergology International

REFERENCES

1. Miyamoto T. In memory of Professor Alain L. de Weck. *Allergol Int* 2013;**62**:275-6.
2. Ohshima Y. Mucosal immunity and onset of allergic disease. *Allergol Int* 2013;**62**:279-89.
3. Matsumoto K, Saito H. Epicutaneous immunity and onset of allergic diseases—Per-“Eczema” tous Sensitization Drives the Allergy March. *Allergol Int* 2013;**62**:291-6.
4. Morita H, Nomura I, Matsuda A, Saito H, Matsumoto K. Gastrointestinal Food Allergy. *Allergol Int* 2013;**62**:297-307.