

Editorial

Moving Forward in Pediatric Allergy & Immunology

The World Allergy Organization, (formerly the International Association of Allergology and Clinical Immunology [IAACI]), is a federation of national and regional member societies, with more than 38,000 members in 92 countries. Its mission is to build a global alliance of allergy societies and to advance excellence, not only in the diagnosis and treatment of patients with allergic disorders, but also in scientific research, teaching, and training focused on these disorders. It has played an important role in fostering allergy education and research since 1951. The recent name change reflects its transformation into a more highly visible international organization with pro-active, visionary leaders who are improving communication and cooperation among allergy societies worldwide.

The World Allergy Organization has developed a number of programs of importance to pediatric allergists and immunologists (1). *Global Resources in Allergy (GLORIA)* involves a close collaboration between the World Allergy Organization and its national and regional allergy society members for dissemination of allergy information to specialists and to primary care physicians who collectively are responsible for the health care of millions of individuals with allergic diseases. The *Prevention of Allergy and Asthma* project, which has been undertaken jointly with the World Health Organization during the past 4–5 years, brings together timely, critical information on genetics, environmental influences, immunologic mechanisms, educational needs, and the economic impact of allergic disorders. The goal of this project is to develop evidence-based recommendations that will assist parents, health care professionals, government agencies, and other interested parties to understand and control the allergy epidemic. The World Allergy Organization website (<http://www.worldallergy.org>) provides an educational resource on the diagnosis and treatment of allergic disorders, with information produced in

two different formats to meet the needs of two different groups: health care professionals, and patients. Since 1997, a symposium series, the *World Allergy Forum*, has set new standards of excellence at major allergy meetings around the world. In the most recent Forum, the issue of immunologic sensitization versus tolerance was addressed.

Every few years, the World Allergy Organization holds a major Congress during which members of the global allergy community gather together to enjoy a first-class educational and collegial experience in a beautiful setting. From September 7–12, 2003, the event takes place in Vancouver, Canada, and features internationally recognized speakers and an outstanding Scientific Program developed with input from national and regional member societies. Subjects of considerable interest to pediatric allergists and immunologists are featured prominently throughout the meeting (<http://www.worldallergy.org>).

Five exciting Plenary Sessions have been developed for the Vancouver Congress. The first of these, entitled “The Science of Allergy: Initiating Mechanisms”, includes state-of-the-art reviews of the topics “Why Are We Allergic?”, “Regulation of the Immune Response”, and “Chemokines in Inflammation”. The second session, on “Effector Mechanisms in the Allergic Response”, highlights modulation of inflammation in allergic disease. The third, which is asthma-focused, features discussion of mechanisms of action of inhaled corticosteroids and real-world health outcome studies. The fourth, devoted to allergic skin disease, includes an overview of new concepts of inflammation in atopic dermatitis. The final Plenary Session on “Allergen Immunotherapy” addresses mechanisms, efficacy, alternate routes, and novel approaches.

More than 25 major symposia have been planned for the Vancouver Congress. They include “Pediatric Asthma: Issues and Answers”,

which features talks on "Airway Remodelling: Does it Occur in Children?", "Rating Delivery Systems in Pediatric Asthma", and "Outcomes in Pediatric Asthma". A symposium co-sponsored by the World Allergy Organization and the World Health Organization highlights the subject "Primary Prevention of Allergy and Asthma" and provides the latest information on environmental influences, and practical recommendations. Another symposium on Primary Prevention of Allergic Disease focuses specifically on the roles of dietary factors, early allergen exposure, and environmental pollutants. "Allergy Trends in Europe" includes a review of the immunologic basis of the hygiene hypothesis, a discussion of whether or not allergen avoidance in the home can provide protection, and an overview of the tree nut and peanut allergy epidemics.

A highlight of this World Allergy Congress is "Debate of the Day" sessions, which feature timely topics such as "*Kill the Cat, or Buy One?*", and "*Immunotherapy for Asthma: Yes/No?*".

In addition to these major sessions, during the Congress there are 12 interactive workshops and 114 interactive seminars, including sessions on acute asthma treatment, anaphylaxis in schools, antibody deficiency syndromes, asthma diagnosis in preschoolers, asthma education, atopic dermatitis and the allergic "march", breast-feeding of infants at high-risk for allergy, drug allergy, exercise-induced asthma, food allergy, genetics of asthma, immunomodulation, insect allergy, mastocytosis, pan-allergens, quality-of-life in asthma and allergic rhinitis, recombinant allergens, regulation of IgE synthesis, and viral infections in asthma.

Approximately 800 abstracts are featured in podium and poster sessions throughout the Congress. Special sessions on topics of particular interest to pediatric allergists and immunologists are scheduled and include presentations by some of the 30 young scientists (9 from Asia and Australia, 8 from Europe, 8 from the Americas, and 4 from Africa and the Middle East) who have won highly competitive international travel grants to attend the meeting.

Allergic disorders in the pediatric population currently represent a major diagnostic, therapeutic, and prevention challenge for physicians and health policy makers in industrialized countries, and, increasingly, in developing countries (2, 3). The epidemic of asthma, allergic rhinitis and atopic dermatitis is occurring mainly in young people. Although little data are available about anaphylaxis from all triggers, this, too, appears to be reaching epidemic proportions in infants,

children, and adolescents; 1.44% of this population in one geographic area has had epinephrine dispensed for out-of-hospital, first-aid treatment (4). Issues of morbidity and reduced quality-of-life in young patients with asthma, allergic rhinitis, atopic dermatitis, and anaphylaxis are increasingly receiving attention (5). Newly recognized triggers for allergic disorders are being investigated (6, 7). Important challenges lie ahead with regard to development of innovative diagnostic (8), therapeutic (9), and preventative approaches (10, 11) to allergic disorders in children.

Pediatric allergists and immunologists who participate in the World Allergy Organization Congress in the extraordinarily attractive and affordable city of Vancouver are certain to gain a greater global awareness of allergic disorders in childhood....and a unique perspective on future research in the pathophysiology, diagnosis, prevention, and treatment of these disorders. The President of the World Allergy Organization, Professor Allen P. Kaplan, and the Congress Co-Chairs, Professor Michael A. Kaliner and myself, welcome you warmly to Vancouver. Have a wonderful time at the Congress, and return home with renewed motivation to be an informed and energetic advocate for children with allergic disorders!

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References

1. World Allergy Organization website (<http://www.worldallergy.org>).
2. The International Study of Asthma and Allergies in Childhood (ISAAC) Steering Committee. Worldwide variation in prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and atopic eczema: ISAAC. *Lancet* 1998; 351: 1225-32.
3. WEINMANN S, KAMTSIURIS P, HENKE K-D, WICKMAN M, JENNER A, WAHN U. The costs of atopy and asthma in children: assessment of direct costs and their determinants in a birth cohort. *Pediatr. Allergy Immunol.* 2003; 14: 18-26.
4. SIMONS FER, PETERSON S, BLACK CD. Epinephrine dispensing patterns for an out-of-hospital population: A novel approach to studying the epidemiology of anaphylaxis. *J. Allergy Clin. Immunol.* 2002; 110: 647-51.
5. JUNIPER EF. Quality of life in adults and children with asthma and rhinitis. *Allergy* 1997; 52: 971-7.
6. SIMONS FER, PENG ZP. Skeeter Syndrome. *J. Allergy Clin. Immunol.* 1999; 104: 705-7.
7. KIM YK, PARK HS, KIM HY, JEE YK, SON JW, BAE JM, et al. Citrus red mite (*Panonychus citri*) may be an important allergen in the development of asthma among exposed children. *Clin. Exp. Allergy* 2001; 31: 582-9.

8. ROEHR CC, REIBEL S, ZIEGERT M, SOMMERFELD C, WAHN U, NIGGEMANN B. Atopy patch tests, together with determination of specific IgE levels, reduce the need for oral food challenges in children with atopic dermatitis. *J. Allergy Clin. Immunol.* 2001; 107: 548–53.
9. MILGROM H, BERGER W, NAYAK A, GUPTA N, POLLARD S, MCALARY M, et al. Treatment of childhood asthma with anti-immunoglobulin E antibody (omalizumab). *Pediatrics* 2001; 108: E36.
10. WAHN U, VON MUTIUS E. Childhood risk factors for atopy and the importance of early intervention. *J. Allergy Clin. Immunol.* 2001; 107: 567–74.
11. WARNER JO, on behalf of the ETAC study group. A double-blind, randomized, placebo-controlled trial of cetirizine in preventing the onset of asthma in children with atopic dermatitis: 18 months' treatment and 18 months' post-treatment follow-up. *J. Allergy Clin. Immunol.* 2001; 108: 929–37.