Allergic disease remains one of the greatest challenges in clinical medicine. In this issue we explore some of these challenges and attempt to highlight the new developments in the diagnosis and management of these disorders. We have assembled some of the leading experts in the field of allergy and immunology, who have authored scholarly reviews in their areas of expertise.

I invite the reader to consider the background of the epidemic of allergic disease. This epidemic appears to be a phenomenon of Western civilization. The hypotheses that underlie this phenomenon are explored in the article on the genetics of allergic disease. Although it is unlikely that a single atopic genotype exists, there appear to be multiple candidate genes that provide the genetic basis for multiple atopic phenotypes.

Clearly, the most common phenotype of atopy is expressed clinically as allergic rhinitis. As Dr. Greiner points out in his article, allergic rhinitis is not only the most common allergic disease but also the most common respiratory disorder. Dr. Greiner further indicates the substantial direct and indirect costs, as well as the significant comorbidities, that are associated with this common illness. A comprehensive diagnostic and therapeutic approach to this condition is highlighted, encompassing education, environmental controls, pharmacotherapy, and allergen immunotherapy.

Asthma is one of the most important challenges in clinical medicine, accounting for significant morbidity and mortality and tremendous direct and indirect cost to society. No specialists in this field have more expertise than Dr. Busse and his colleagues at the University of Wisconsin. In their article, Drs. Busse and Mathur review the pathophysiology and the epidemiology of
asthma. They provide an up-to-date treatise on diagnosis, as well as guideline-directed treatment options.

Dr. Stephen Tilles provides further expert analysis of the differential diagnosis of asthma. Because this condition is so common, there are significant problems with misdiagnoses and underdiagnoses of reversible airway obstruction. Dr. Tilles shares his expertise in the challenging area of asthma masqueraders, with a focus on vocal cord dysfunction, an area in which he has greatly added to our understanding. In addition, Dr. Tilles expands the differential diagnosis by highlighting the features distinguishing asthma from many common conditions, including chronic obstructive pulmonary disease and gastroesophageal reflux.

Dr. Philip Lieberman has spent much of his distinguished career in the clinical study of anaphylaxis. In his article on anaphylaxis, Dr. Lieberman shares his wealth of experience and his mastery of the literature in this important area. I suspect that no condition in clinical medicine instills more fear in the hearts of patients and their care providers than this one. Dr. Lieberman presents a concise and learned approach to anaphylaxis that can save lives and minimize patients’ appropriate apprehension regarding this life-threatening condition.

Adverse reactions to foods are among the most difficult and common clinical problems in medicine. Drs. Nowak-Wegrzyn and Sampson present a diagnostic approach to this challenge in children and adults. Their experiences at the Jaffe Food Allergy Institute at the Mount Sinai School of Medicine provide the foundation for much of the clinical research being published in this area. They help sort through the differential diagnosis of food-related disorders based on age and pathologic mechanisms. Non–IgE-mediated as well as IgE-mediated food allergies are detailed. The superb figures in their article should provide a useful reference source for any clinician.

Dr. Bielory is an internationally highly regarded expert in the area of ocular allergy. In his article, Dr. Bielory reviews clinically relevant pathophysiology and details the important aspects of the differential diagnosis of ocular allergy, including the emerging area of dry eye syndrome. He further reviews newer treatment options for ocular allergy and describes a rational, cost-effective approach to treatment, including the benefits of immunotherapy.

Drs. Simpson and Hanifin at the Oregon Health and Science University (OHSU) review the challenges of atopic dermatitis. Dr. Hanifin and his colleagues at OHSU are regarded as leading experts in this important clinical area and have initiated many exciting new scientific advances in the field of atopic dermatitis. The authors summarize differential diagnosis, relevant clinical findings, and updated treatment regimens. They include a discussion of the controversy regarding the recently released black box warnings on nonsteroidal topical immunomodulatory agents that places this issue in proper perspective.

Dr. Raymond Slavin at Washington University School of Medicine is one of the most respected experts in the field of allergy. Many specialists and
generalists have benefited over the years from his expertise in the difficult area of contact dermatitis. In their article on contact dermatitis, Drs. Mark and Slavin review the clinical features and underlying immunologic basis of this condition. They help to distinguish specific contact allergic dermatitis from contact irritant dermatitis and highlight the importance of identifying the offending agents. Historical clues in and outside the workplace that can aid in the identification of these agents are presented. Practical management issues are reviewed, including caveats for the practitioner who may encounter this problem.

Dr. Donald Dibbern shares his wealth of clinical experience as the Director of the OHSU Multidisciplinary Urticaria Clinic. He is able to summarize aspects of clinical presentation and evaluation that enable the clinician to undertake a pragmatic approach to perhaps the most frustrating allergic problem for patient and care provider alike. Recent advances, such as those in the area of autoimmune urticaria, are discussed. The evidence for the use of traditional as well as newer and more aggressive therapeutic options is detailed.

The challenge of stinging insect venom sensitivity is detailed in an outstanding review by Dr. David Graft. The importance of identifying appropriate patients for venom-specific immunotherapy is reviewed. The conundrum of the history-positive, skin test–negative patient is addressed, and recommendations for evaluating these patients are presented. Clinicians will be more effective when they can present patients with a therapeutic option that is more than 95% effective in preventing a potentially life-threatening event.

Dr. Solensky has reviewed the clinical challenge of drug hypersensitivity. Dr. Solensky and colleagues at Southwestern Medical School have been highly regarded leaders in this area and have contributed significantly to the drug allergy literature. In Dr. Solensky’s article, he has addressed the value of and indications for skin testing in drug allergy. He addresses the confusing area of cephalosporin cross-reactivity and makes specific recommendations for evaluating patients with this clinical dilemma.

I hope that you enjoy reading this issue. The authors have assembled the latest findings in this challenging area of medicine. This compendium of updates should provide the clinical practitioner with a valuable resource for problems that are encountered on a daily basis. I have been privileged to work with such a distinguished group of authors. I hope you learn as much as I have in preparing this issue.

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