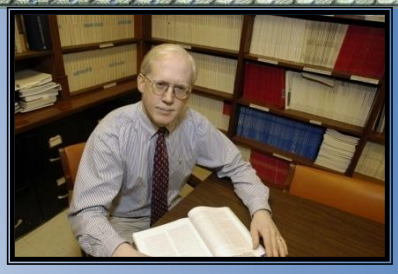
Research Highlights

FALL, 2010



Robert A. Wood, M.D.
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The dramatic rise in all types of allergy in the past 20 to 30 years, including asthma, eczema, hay fever, and food allergy is striking. Not that long ago asthma occurred in 2 – 3 percent of children and it now occurs in nearly 8 percent. There is evidence that peanut allergy has doubled just in the last five years and a recent report from the Centers for Disease Control and Prevention estimates that all food allergies are on the rise, with three million children in the United States – including nearly 8 percent of young children – now having at least one food allergy.

Even more striking increases have occurred in certain high risk populations – for example, asthma now occurs in 18 percent of children living in inner-city Baltimore! Some have dubbed this "the modern epidemic" and these numbers would certainly support such a claim. And these diseases are not just a nuisance – in fact, they are serious conditions that can dramatically limit a child's life and even kill those with more severe disease. As unfortunate as this is, we now have a unique opportunity to explore the causes and solutions to this enormous health concern. Dr. Wood believes that while we are 10 – 20 years away from a true treatment of food allergies that would allow patients to eat the food they are allergic to, we are leading cutting-edge research studies that are resulting in remarkable strides in improving the quality of life for patients. Dr. Wood and his team of experts have extensive experience in clinical and laboratory research in asthma and allergy, including the development of novel allergy treatments, and we are therefore especially well equipped to take on this important challenge.

Dr. Wood is currently the Principal Investigator of 24 different research studies and a co-investigator in five other studies, all of which are directed in one way or another at addressing this critical challenge. Following is a sample of these studies, as well as several very exciting trials in the planning stages:

Current and Planned Research Studies

1. Oral and sublingual immunotherapy for the treatment of food allergy

- A study, initiated by Dr. Wood, seeking to develop treatments for children with severe, persistent milk allergy. This study, which started in June, 2007, was the first study of its kind in the world. The results of this study have now been published and showed dramatic improvements among these children, such that the average child could tolerate over 100 times more milk after the treatment, while some appear to be completely cured.

- A second milk immunotherapy study was initiated in September, 2008. This study is also the first of its kind in that it will compare oral and sublingual immunotherapy in a group of children with severe milk allergy that would almost certainly never go away on its own. Results thus far are extremely encouraging.

- In early-2010, Dr. Wood began a study of oral and sublingual immunotherapy for peanut allergy, a unique combination that has never been studied for this highly prevalent and potentially deadly allergy. ***This study has received FDA approval and is a major focus of current fund-raising efforts.***

- In addition to the immunotherapy studies, In July, 2009, Dr. Wood initiated a study on the use of anti-IgE antibody (omalizumab) for the treatment of peanut allergy, a study designed to both study the potential for this drug to treat peanut allergy and to improve our understanding of food reactions.

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2. The Consortium for Food Allergy Research (CoFAR)
Five academic medical centers, including Hopkins Children's, have been funded by the NIH for another 5 years and charged with the task of exploring the rise in food allergy and developing **THE CURE.** Studies include:

- The natural progression of food allergy from infancy through age 10 years
- Oral immunotherapy for the treatment of egg allergy
- Sublingual immunotherapy for the treatment of peanut allergy
- Treatment of peanut allergy with modified, recombinant peanut proteins – a "peanut vaccine."

3. The Inner-City Asthma Consortium (ICAC)
Eight academic medical centers, including Hopkins Children's and funded by the NIH, are seeking to unravel the causes of and develop new treatments for asthma in inner-city children. Current studies in this consortium include:

- A birth cohort study of inner-city asthma
- Studies of sublingual immunotherapy for cockroach allergy, the first studies of their kind in the world

4. The natural history of childhood food allergy
A series of studies conducted over the past 10 years – and likely for next 10 – 20 years (until we perfect the cure) on what food allergy does over time, what is outgrown and what is not, and WHY. Dr. Wood was the first to show that some children do outgrow peanut allergy and our investigators have now shown that, contrary to popular belief, milk and egg allergy are outgrown much more slowly than previously thought and that a great number of children never outgrow these allergies. A study on the natural history of wheat allergy, again the first of its kind, was published in early 2008, and a study on soy allergy was just recently published.

5. Food allergy in adolescents and adults
Most deaths from food allergy occur in adolescents and young adults. This study seeks to find out why and what treatments would be most effective in this high-risk group of patients.

How Can You Help?

For more information on how to help fund these programs and/or the work of Dr. Wood and his team, **please contact Jennifer Balzano in the Johns Hopkins Children's Center Development Office at 410-516-4513.**

To make a charitable donation in support of Dr. Wood's research, please make checks payable to the Johns Hopkins Children's Center and mail to:

Johns Hopkins Children's Center
Development Office
Attn: Jennifer Balzano
100 N. Charles Street, Ste. 200
Baltimore, MD 21201

Please include a note with your donation stating that your gift is in support of Dr. Wood.

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