Allergies have become a challenge to global health. Experts from all parts of the world meet to find answers at the World Allergy & Asthma Congress 2013 in Milan, June 22-26. EAACI and the World Allergy Organization (WAO) jointly host the World Allergy & Asthma Congress 2013.

**Origins of allergies at fetal stage**

- **New proof for pre-birth programming of food allergies**
- **Environmental factors prior to birth influence susceptibility to food allergies**
- **Food allergies in first 12 months after birth “programmed” at fetal stage**
- **Allergy risk programmed during critical periods of immune development**
- **Immune development sensitive to environmental disruption**
- **Proof that “Memory of the body” starts before birth**
- **Major step forward in finding a vaccine against shellfish allergies**

**Milan, Italy 20.06.2013** – The number of people suffering from allergy or asthma is growing faster than ever before. More than 30% of the world’s population is now being affected by allergies. Two hundred and fifty million people are estimated to suffer from food allergies. In developed countries like the United States, one in five people suffer from either allergy or asthma. The strongest increase in allergies and asthma is seen in developing countries.

The sharpest increase in allergies is observed in children who primarily suffer from food and respiratory allergies; and one of four school-age children in Europe live with allergic disease.

Among the new findings on allergy and asthma presented at the World Allergy and Asthma Congress 2013 in Milan from 22-26 June 2013 is new Australian research by David Martino and team from Murdoch Children’s Research Institute, Melbourne, providing proof for pre-birth programming of food allergies. This means food allergies are not acquired after birth or at a later stage in life, but children are born with allergies due to specific environmental factors during pregnancy.

In short, there is further scientific proof that allergies can originate at fetal stage. Babies can be born with a tendency to develop food allergies due the living conditions of their mothers, including nutrition during pregnancy. This was proven for food allergies that occurred in infants in the first 12 months of life.

In scientific terms, a biochemical process called DNA methylation plays a central role in normal prenatal immune development. The DNA methylation is sensitive to environmental disruption. The Australian study provides evidence that disruption, or external environmental influences during pregnancy, increases the risk for food allergy. Based on this evidence the study concluded that food allergies are programmed before birth.

New findings will also be presented on shellfish allergy, one of the most common food of allergies and a main cause of life-threatening allergic reactions to food. Research by Heidi R. Myrset and team from the Norwegian Veterinary Institute in Oslo shows which parts of the allergen actually trigger the allergic reaction to the shellfish. These results could represent a breakthrough in finding a vaccine against shellfish allergy.
“Allergies and asthma are rising sharply. There is a clear correlation between increasing wealth and standard of living and allergies and asthma. That is why we see the strongest increase in emerging countries. Children suffer most from this trend. With the new research presented at the World Allergy and Asthma Congress on the early origins of allergies and biomarkers triggering asthma, we are confident to contribute to prevention and better treatment of millions of people suffering from what has become a serious threat to global health”, said Prof. Cezmi Akdis, President of the European Academy of Allergy and Clinical Immunology (EAACI) and Congress President.

Professor Ruby Pawankar, President of the World Allergy Organization and also Congress President, said, “With the increasing severity and complexity of allergic diseases as societies become affluent and especially in children, the major need lies in finding out at what stage allergies and asthma are acquired and how these diseases can be prevented. This is especially so as an increasing number of people are already born with a predisposition despite generally better living conditions. Global cooperation of experts from all disciplines and various stakeholders including policy makers, health authorities, patients and the public to address this major global public health issue is the need of the hour, and the Congress will clearly address this issue and foster this cooperation.”

Professor Giorgio Walter Canonica, Chair of the Local Organizing Committee of the Congress, said that “The growing impact of allergy burden worldwide is also a reality in Italy. Both the prevalence and the cost of allergy are continuously growing. The Milan Congress will offer a unique opportunity to learn about all the current and future strategies to fight allergies and asthma. The Italian Allergy Societies (AAITO and SIAIC) are pleased to host and to contribute to the success of the Congress.”

Over 8,000 delegates from more than 100 countries participating in the EAACI-WAO World Allergy and Asthma Congress 2013 make it the leading medical congress on allergy and immunology globally. The programme of 8 Plenary Symposia, 45 Symposia, 3 Satellite Symposia, 30 Meet the Expert Sessions, 25 Workshops and 34 Oral Abstract Sessions is dedicated to communicating the most up-to-date information in the field. A total of 2,145 abstracts have been received — the highest number ever in the history of all allergy congresses.

About EAACI
The European Academy of Allergy and Clinical Immunology (EAACI) is a non-profit organisation active in the field of allergic and immunologic diseases such as asthma, rhinitis, eczema, occupational allergy, food and drug allergy and anaphylaxis. EAACI was founded in 1956 in Florence and has become the largest medical association in Europe in the field of allergy and clinical immunology. It includes over 7,800 members from 121 countries, as well as 42 National Allergy Societies.

About WAO
The World Allergy Organization (WAO) is an international alliance of 92 regional and national allergy, asthma and clinical immunology societies. Through collaboration with the Member Societies, WAO provides a wide range of educational and outreach programs, symposia, and lectureships to allergists/immunologists around the globe and conducts initiatives relating to clinical practice, service provision, and physician training in order to better understand and address the challenges facing allergists/immunologists worldwide.

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