Eczema in babies due to stress in pregnancy

- 47% of atopic eczema in babies occur due to stress during pregnancy
- Up to 40% of Europeans suffer from hay fever
- Top 3 European allergens: grass, birch, olive
- Pollen differs by “nationality”: 4-5 fold differences in pollen potency between European countries
- Asthma and rhinitis stress Public Health in Europe

Geneva/Zurich (Switzerland), 15 June 2012 – Ground-breaking research results about stress during pregnancy and changes in pollen potency across Europe will be presented – among other novel research - at the world’s leading congress on allergy and immunology – the EAACI Congress 2012 – that will open tomorrow in Geneva, Switzerland.

Maternal anxiety during pregnancy is a risk factor for the onset of infantile atopic eczema at the age of 6-8 months. Researchers at the National Center for Child Health and Development, Allergy Division in Tokyo, Japan, have come to this conclusion after analysing data from 896 pairs of mothers and children (474 boys and 422 girls) that will be presented for the first time at the EAACI Congress 2012.

“18.75% of mothers were classified into the highest anxiety group, 62.39% of mothers showed moderate anxiety and 18.86% of mothers were categorised into the lowest anxiety group”, explains Dr. Mana Hamaguchi, Clinical Psychologist at the National Center for Child Health and Development. The average prevalence of atopic eczema was 46.76%. The tests showed that children of mothers with higher anxiety scores were more likely to be affected by eczema. The conclusion is that mothers suffering from anxiety during pregnancy have a higher risk of their children developing eczema at the age of 6-8 months.

Pollen potency shows 4-5 fold differences between European countries on average

The results of the Health Impacts of Airborne Allergen Information Network (HIALINE project) will also be presented at the EAACI Congress 2012. Researchers from across Europe have investigated the allergic potential of pollens from the three main triggers of hay fever in Europe: birch, grass and olive.

“At all locations in Europe we found a significant correlation between amount of allergen in the air and pollen counts. However, the allergenicity, the aggressiveness in popular terms, of the pollens varies greatly across Europe, by day, year and location”, explains Prof. Dr. Jeroen Buters, Toxicologist and Molecular Biologist from the University of Munich and member of the EAACI Aerobiology & Pollution Interest Group.

When comparing locations, grass pollen showed the largest variability across Europe with France having the highest yearly average grass pollen potency, 7-fold higher than Portugal. For birch pollen the yearly average pollen potency was comparable between locations, but still varied more than 2-fold. Olive pollen from two locations 400km apart varied 4-fold in their allergen release potency. In Portugal there were occasions when...
pollen from Spain released much more allergens than the “local” pollen. So Spanish pollen was responsible for triggering allergic reactions in Portugal.

**Atmospheric transport may lead to allergies in previously unaffected regions**

The conclusion: Allergic reactions like hay fever do not simply depend on pollen, but on the amount of allergens these pollen carry, and that varies more than 10-fold between days, locations, and years. Atmospheric transport of high potency pollen to locations that normally have a lower allergen exposure can lead to sudden increases in the number of people suffering from allergies. Changes in atmospheric transport or climate in general may result in patients being affected by allergies where they were previously unaffected.

**Asthma and rhinitis stress Public Health in Europe**

Asthma and rhinitis are the most common chronic diseases in childhood. Up to one in three children suffer from these conditions and up to 15% of these have severe disease; direct and indirect costs may reach over €100 billion yearly. Measures to prevent or stop the progression of these allergic diseases will have a major impact on the quality of life of Europeans and on Public Health. As there is a strong need to promote allergic diseases as health priorities in the EU and beyond, representatives from different organisations, including Elisabetta Gardini, member of the European Parliament, will discuss the next steps in fighting chronic respiratory diseases. This discussion will take place during the live streamed symposium “EU Health Priorities: Political and Research Agenda” (Monday 10:45 - 12:15).

**EAACI President Prof. Cezmi Akdis: “We need to contain the allergy epidemic”**

For these matters, EAACI calls for more research support to fight chronic respiratory diseases. Prof. Cezmi Akdis, President of EAACI, calls for action: “If the allergy epidemic is to be contained or reversed, systematic and persistent research efforts are needed. It is very important to understand the mechanisms of the disease but real-life disease surveillance through registries can provide crucial information for its management. Novel diagnostic and therapeutic approaches and immunotherapy should be brought to the bedside through large clinical trials.”

Prof. Akdis also draws attention to research for the development of novel ways of prevention, “because every year 2 million new people develop some kind of allergic disease in Europe”, he added.

**EAACI Launches Patient Organisation Committee in Geneva**

The Academy is embracing the work of patient support organisations from all over the world. More than 25 country representatives from across Europe, North America, South America, the Middle East, Asia, Australia, and New Zealand are involved in this initiative. The Patient Organisation Committee will work within the EAACI platform with opinion leaders to develop better management, education, access to care, and increased safety and quality of life for individuals with allergy and their carers. The development of global minimum standards of care will assist individuals with allergy worldwide.

**About EAACI, The European Academy of Allergy and Clinical Immunology**

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 7,400 members from 121 countries, as well as 42 National Allergy Societies.

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