Managing the problem of food allergies

**Background/description of problem**
Food-related diseases and allergies are on the increase in developed countries, causing symptoms that range from minor inconvenience to life-threatening anaphylactic shock. We need to know more about the underlying risk factors associated with food allergies and their epidemiology so as to turn the tide on the spread of sensitivity and give sufferers hope of overcoming their symptoms. Contributory causes could include genetic predisposition, lifestyle and environmental factors, or a combination of all these factors.

**Project profile**
EuroPrevall is investigating, for the first time, whether patterns of food consumption, environmental factors, including pollen, and infections are linked to the prevalence and distribution of food allergies across the EU and candidate countries. It is assessing lifestyle issues, such as changing eating habits and smoking, to see how food allergies could be managed and reduced in the future. It will also study possible genetic predispositions to food allergies, and compile a European database of key risk factors.

**International aspects**
While the project is based exclusively on European data and situations, its findings on allergens and its methods could be adapted to any area where food allergies are on the increase.

**Socio-economic significance**
EuroPrevall will have the following long-term socio-economic impacts:
- It will investigate the costs to society and the effects on quality of life of allergy sufferers and their families
- It will assess the economic impact of food allergies on individuals and households as well as on the agro-food industry, which incurs many extra costs because of them
- Better management and control of food allergies will ultimately allow their socio-economic impact to be reduced and will give greater protection to those who suffer from them.
Basic project information

Full project title: The prevalence, cost and basis of food allergies across Europe
Duration: 48 months
Starting year: 2005
EU funding: €14.06 million
FP6 instrument used: Integrated Project
Project coordinator:
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Third country partner(s) involved:
Noguchi Memorial Institute for Medical Research (Ghana)
Associated third countries partners:
HortResearch and associates (New Zealand), Food Science Australia (Australia)
Project website: -
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Scientific significance
The project will contribute to the following scientific areas:
• Development of new diagnostic tools to replace in vitro skin tests
• Identification of novel predictive markers, both genetic and biochemical, for food allergies to permit early preventative measures, during pregnancy for example
• Improving diagnosis through serological methods
• Establishing thresholds, and the effect of the food matrix and processing route for reducing allergic response.

Project outcomes
• Establishment of the patterns and prevalence of food allergies in Europe through surveys of infants, children and adults
• Defining the pattern of response across Europe to the main classes of allergens, which include eggs, dairy products, nuts, cereals and fish
• A platform of authentic and highly characterised food allergens with the reactions they elicit and their distribution in sub-populations
• Novel diagnostic and predictive tools and methods
• Information dissemination, and training and mobility of researchers.