

## **Food allergies: the enemy within**

**The European Commission's Joint Research Centre (JRC) has co-authored new international guidelines which should better protect consumers, by promoting the harmonised, accurate and reliable testing of potentially lethal food allergens by analytical laboratories worldwide.**

The guidance document is the result of several years of negotiation by a high-level collaboration of experts from regulatory agencies representing Canada, USA, Australia, Japan, the European Union, academic research institutions, and food allergen test-kit manufacturers, under the auspices of the AOAC<sup>1</sup> Presidential Taskforce on Food Allergens.

For the first time, national authorities carrying out official food allergen controls have a common basis for accepting validated testing methods. Consumers allergic to certain food ingredients will benefit from an increased level of protection by the availability of harmonised and reliable testing methods, and international trade will be facilitated by applying mutually-agreed testing protocols.

### **Protection through better measurements**

The new guide is important because consumers depend on truthful labelling of food products to avoid allergic reactions. Accurate labelling is only possible if an internationally-agreed set of validated testing methods that are reliable and robust is available.

The use of so-called ELISA testing methods (enzyme-linked immunosorbent assay) to detect food contaminants and residues is fairly well established. However, the new guidance document addresses for the first time the validation of ELISA testing methods for food allergen analysis in a harmonised way.

Food allergens are proteins, which are large and complex molecules. Scientists have to target the right mixture of protein markers in food samples to reliably detect the presence of food allergens. The targeted proteins have to meet multiple criteria, such as the efficiency with which they are extracted from the food sample and the ability to withstand food production processes like roasting and extrusion.

### **Hope for treating food allergies**

Until now, avoidance of the offending food is the only means of protecting allergic persons. New approaches are currently developed to treat food allergy sufferers, thereby improving their quality of life.

---

<sup>1</sup> Association of Analytical Communities

The Cambridge University Hospitals NHS Foundation Trust in the United Kingdom is forging ahead with a new project which is demonstrating a revolutionary approach to treating patients with food allergies. By using a technique called immunotherapy – where the patient is given the substance they are allergic to – the Trust will carry out a major trial of peanut oral immunotherapy involving 100 children suffering from peanut allergies.

### **About the Joint Research Centre**

The Joint Research Centre (JRC) is a Directorate-General of the European Commission providing independent scientific and technical support to European policymaking. The JRC Institute for Reference Materials and Measurements (IRMM) promotes a common and reliable European measurement system in support of EU policies. The prime objective of the JRC-IRMM is to build confidence in the comparability of measurements by the production and dissemination of internationally accepted quality assurance tools, including reference materials, validated methods, reference measurements, interlaboratory comparisons and training.

### **About Cambridge University Hospitals NHS Foundation Trust**

Cambridge University Hospitals NHS Foundation Trust – known as CUH – runs Addenbrooke’s Hospital and the Rosie Hospital. Both Addenbrooke’s and the Rosie are recognised as centres of medical excellence and innovation, and our role in Cambridge University Health Partners – one of the first NHS academic health science centres – makes this one of the richest pools of clinical and scientific knowledge and expertise in the NHS. As an internationally-known university teaching hospital, we provide specialist services dealing with rare or complex conditions that need the most modern facilities, the most up-to-date treatment, and the best doctors, nurses, and clinical staff.

### **More information**

- Press pack: [www.jrc.ec.europa.eu/aaas](http://www.jrc.ec.europa.eu/aaas)