

'Grand vision' to regulate allergies in food

April 27 2016

A Manchester scientist has contributed to a review of allergen analysis that aims to improve the situation for those living with food allergies – preventing food fraud and protecting consumers.

Food allergies are a rapidly growing problem in the developed world, affecting up to 10% of children and 2-3% of adults, yet allergens remain challenging to analyse accurately, making it difficult to legislate and manage risk.

A team, including Professor Clare Mills from the Institute of Inflammation and Repair at The University of Manchester, has published an open access paper in the journal *Analyst* outlining a strategy to address the key measurement challenges in allergen analysis.

The paper appears in a special collection entitled 'Detecting food authenticity and integrity', guest edited by Professor Roy Goodacre and Dr David Ellis at The University of Manchester's Manchester Institute of Biotechnology.

Professor Mills, chair in Molecular Allergology, and leader of the EU funded EuroPrevall and iFAAM projects, said: "Those with food allergies must be careful to avoid the offending food and have to rely on allergen labelling. Precautionary 'may contain' labelling is confusing and its use needs to be better linked to the presence of trace amounts of allergens that are known to cause a reaction in the food allergic individuals."



Having previously applied their experience and expertise to solve a mystery in the spices supply chain, where ground cumin was initially thought to have been contaminated with powdered almond but was later shown to have been tainted with traces of a lesser-known spice, mahaleb, belonging to the same nut family, the group proposes a series of measures aimed at improving the analysis of allergens in all foods.

They set out a 'grand vision' in the paper, with recommendations primarily addressed to the European Commission, the Health and Food Safety Directorate, DG Santé. The recommendations consist of: bioinformatics studies to pin down relevant markers or allergenic proteins within allergenic foods, development of reference methods for these allergens, and finally appropriate reference materials which can ultimately support decisions regarding appropriate allergen thresholds.

Significant international effort and an inter-disciplinary approach will be required to achieve these aims, but the result would be a food chain which is reliable, resistant to fraud and ultimately safe for <u>consumers</u>. The iFAAM project will deliver new knowledge and approaches to help address the gaps identified in the paper but as the project enters its final year it is becoming evident that much remains to be done to improve the quality of allergen analysis. This is essential to inform decisions as to when precautionary labels should be applied or whether product recalls are required.

Michael Walker, of the Government Chemist Programme at LGC and an author of the paper, said: "If we fail to realise the promise of future risk management of food allergens through lack of the ability to measure <u>food</u> allergens properly the analytical community will have failed a significant societal challenge. Our recommendations are complex with associated resource demand but rarely has such an exciting interdisciplinary scientific endeavour arisen as a solution to a key socially relevant problem."



More information: R. L. Sayers et al. The effect of thermal processing on the behaviour of peanut allergen peptide targets used in multiple reaction monitoring mass spectrometry experiments, *The Analyst* (2016). DOI: 10.1039/C6AN00359A

For further information see: <u>blog.lgcgroup.com/2016/04/20/i ... gen-analysis-flawed/</u>

Provided by University of Manchester

Citation: 'Grand vision' to regulate allergies in food (2016, April 27) retrieved 28 April 2024 from <u>https://medicalxpress.com/news/2016-04-grand-vision-allergies-food.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.