Analytics is the key for safe food – Challenges and way forward

Analytical methods are a key tool of an allergen management plan and can be used to aid manufacturers to validate and verify their cleaning schedules, finished product testing or their supply network. However, with such a variety of both manufacturing methods and analytical techniques, it can often be a challenge for food manufacturers to select appropriate methods. A variety of analytical techniques are available for food allergen analysis, including those based on ELISA, PCR and, more recently, LCMS:MS techniques. Each of these methods have potential benefits and limitations for the detection of food allergens. Using practical examples, the factors that should be evaluated when validating methods for suitability will be considered, with a focus on ELISA and lateral flow technology. These include the format of the food allergen, effect of processing on food allergen detection and matrix interference. Significant efforts are being made by the scientific community to overcome some of the challenges of allergen analysis, which include the need for food allergen reference materials to improve existing methods and to aid validation of new methods. Looking forward, a key area for the use of appropriately validated methods is the application of these tools in relation to food allergen thresholds.

Biography

Pauline Titchener studied Food Technology at the University of Glasgow. Following graduation, she worked at the food industry in both quality assurance and new product development roles. For the last 10 years, she has been working for Neogen Europe, a leading manufacturer of food safety diagnostic tests. She is currently responsible for the business development of the allergen and speciation diagnostic ranges across Europe.

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