

SPECIAL GUEST EDITOR SECTION

A Global Reflection on Food Allergen Regulations, Management, and Analysis

Food allergy has been a well-recognized disease for several decades now, and yet, competent food authorities implemented regulations only about a decade ago. Although regulatory requirements to label ingredients known to trigger food allergies have somewhat improved the quality of life of those who suffer from food allergies, some of the major issues in this field have not yet been sufficiently addressed. In recent years, recalls for undeclared food allergens have outnumbered the recalls for food pathogens in some geographic locations, resulting in an enormous economic and management burden to the food industry and a loss in consumer confidence.

The last decade has been marked by countless regulatory changes and analytical improvements, often difficult to follow in their intricacies. Therefore, it was time for a comprehensive update, and we invited many well-known experts in the field, with whom we have worked over the years and with whom we had become friends, to contribute. The response was overwhelming and, at the same time, humbling. More than 20 high-quality manuscripts were submitted for this *Special Guest Editor Section*, and we are very grateful to all who responded to our call for papers and contributed to one of the largest special sections in *J. AOAC Int.*

We structured this *Special Guest Editor Section* into topic areas, namely regulations and surveys, food allergen management, projects and organizations dealing with food allergens, and finally, analytical developments.

Different jurisdictions have enacted regulations or rules that differ in their lists of priority food allergens and also in the way information should be presented to allergic consumers. Several papers

review regulatory developments from the time food allergen labeling began to present day and describe the *status quo* in and the particularities of different geographies. Some of these papers also include gluten-free labeling requirements.

Papers from both regulatory and competent inspection food authorities describe investigation findings either by looking at recalls and survey reports or from analyzing food products sampled at retailers analyzed for the undeclared presence of food allergens.

Most jurisdictions require the labeling of priority allergenic food ingredients. However, issues leading to undeclared food allergens, such as cross-contamination and mispackaging, are usually not regulated. This regulatory gap leaves it up to the industry to define and implement best allergen control practices. Here, the *Special Guest Editor Section* contains several papers describing allergen management for food manufacturers and retailers, as well as schemes to help with risk assessment and risk management when it comes to precautionary food allergen labeling.

And last, but not least, different analytical methods are used for the detection of food allergens, with ELISA currently being the most frequently used method, followed by PCR and LC-tandem MS. Several papers in this section, as well as reports by ELISA kit manufacturers, describe the experiences and benefits and drawbacks of using one technology over another. In addition, several papers describe the development of novel methods for food allergen analysis.

This *Special Guest Editor Section* provides an unparalleled review of and the outlook for the field of food allergens, and we are very grateful not only to the



Carmen Diaz-Amigo
Special Guest Editor



Bert Popping
Special Guest Editor

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—Carmen Diaz-Amigo
FOCOS GbR—Food Consulting Strategically
Zum Kälterhaus 6b, 63755
Alzenau, Germany
E-mail: carmen.diaz.amigo@focos-food.com

—Bert Popping
FOCOS GbR—Food Consulting Strategically
Zum Kälterhaus 6b, 63755
Alzenau, Germany