

**TOPIC: Food Allergens Detection**

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**BIOGRAPHY**

**Dr. Popping** received his PhD in Biology from the University of Bochum in Germany and did a postdoc at the University of Durham, UK. He joined an Agency of the UK Ministry of Fisheries and Food in 1995 and four years later the Eurofins Scientific Group as Director Molecular Biology and Immunology and recently also became Managing Director of Eurofins CTC.

Dr. Popping serves on the Board of Directors of the AOAC Research Institute and is a member of several national and international scientific committees.

## ABSTRACT

### Allergens – The analytical challenge to meet legislative requirements and consumer demands

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Food allergen labelling is regulated under 2007/68/EC and gluten labelling under 2009/41/EC. The list comprises a total of 14 groups, where all IgE allergens are protein based. ELISA (E\_nzyme L\_inked I\_mmunosorbent A\_ssay) is the most common method principle to test for allergens, followed by PCR (P\_olymerase C\_hain R\_eaction).

However, it can be observed that in a number of cases, the commercial ELISA kits available on the market produce significantly different results. This has a particular relevance for gluten detection where not only a presence/absence information is needed but quantification is required to meet labelling requirements.

The European Commission recognised that gaps exist in several analytical areas relevant to human health and nutrition and funded the 6<sup>th</sup> work program MoniQA, which, *inter alia*, deals with the problematic of allergens. The allergen working group of MoniQA, led by Bert Popping (Eurofins) and co-led by Clare Mills (IFR) deals with all aspects encompassing consumer, authority, industry and laboratory issues. Here, a subgroup was formed to look specifically at novel method approaches, in particular mass spectrometry, leading to consistent and accurate results. This group has made good progress on the analytical side by using newly produced reference material for the detection and quantification of milk and egg in processed foods. The progress of this working group will be presented in the session.

Keywords: Mass spectrometry, Allergens, milk, egg

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