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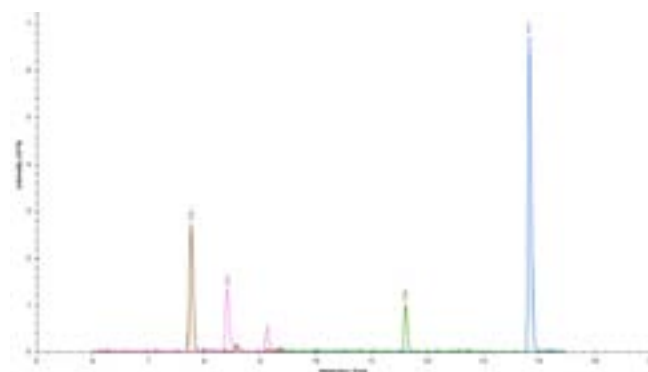
Mass spectrometry: A complementary tool to ELISA for allergen detection

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Food allergies rise increasingly over the last decades. To protect themselves, food customers must exclude the allergenic food. Unfortunately, unintentional contaminations in finish products are still possible due to cross-contamination during food production, and food storage. To help producers, food laboratories developed methods for the protection of allergic customers. Most contaminations of food products by allergens are determined by enzyme-linked immunosorbent assay (ELISA). However, high-baked allergens in food products are sometimes hardly detected by ELISA. Ultra-high-performance liquid chromatography coupled to tandem mass spectrometry recently developed allows a highly specific and sensitive detection of processed allergens in food products. The establishment of a UHPLC-MS/MS method is expensive compared to ELISA method. Both methods present advantages and disadvantages, but, they are complementary. The guideline SMPR 2016.002, published in 2016, is dedicated for UHPLC-MS/MS methods. Food products selected in this guideline will be analyzed by ELISA and UHPLC-MS/MS and compared. This study will present the complementarity of UHPLC-MS/MS and ELISA method for a better use and comprehension of methods for the detection of allergens.



Biography

M Planque holds a Master's degree in Chemistry. She started her PhD in 2014 at CER Groupe (Health Department) and at the University of Namur in Belgium. She is currently working on the sensitive detection of allergens by ultra-high-performance liquid chromatography coupled to tandem mass spectrometry.

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