Process contaminants: mitigation through understanding and monitoring

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Process contaminants (for example acrylamide) form during food processing and pose significant health risk. In innovative products like vegetable snacks, the contaminant levels can be high. Regulations are expanding to cover a growing number of process contaminants across a wide range of products. Reduction of contaminants in food is critical.

To reduce contaminants, we build mechanistic understanding of contaminant formation during processing, and develop strategies to monitor, prevent, reduce or remove process contaminants. Examples are monitoring of MOAHs (mineral oil aromatic hydrocarbons) in oils, investigation of acrylamide formation with alternative frying technologies or recipe optimisation to reduce MCPD (monochloropropanediol) esters. Scientific insights combined with fast measurements to monitor contaminants level can help in an efficient mitigation strategy for safe consumer products.