

NEW RESEARCH CHALLENGES IN FOOD QUALITY AND SAFETY CONTROL

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The main challenges for all stakeholders involved in the food safety and food security sector relate to the availability of high quality, nutritious, safe and functional food accommodating a range of lifestyles and incomes. As the access to safe food is a basic human right, it is important to supply safe and wholesome food in sufficient amounts to the society. Globalisation and international trade have drastically changed the way that food is produced, processed, transported, and consumed and raise the need for a more holistic and integrated approach to assure the safety of the food chain. With respect to food control, it is desirable to achieve a high quality and uniformity of test results throughout the EU and at global level, in particular in those areas where legal limits for hazardous substances in food need to be respected and enforced if necessary. The use of harmonized or standardized testing methods is mandated by EU legislation to guarantee that only safe food reaches the market. It is important to carry out underpinning research to understand the complexity of behaviour of food components through the whole food chain. This is of particular importance when there may be an impact of food on consumers' health such as food allergens or other harmful substances (natural or man-made) in food. It is likewise important to protect consumers against frauds. Food fraud is a criminal activity, which usually does not pose a threat to public health. However, this is not always the case as experienced even lately. It is a great challenge to predict potential problems related to food authenticity and frauds. Converging technologies (nano – biotech – ICT) are used to create food with new functionalities with the aim of increasing product safety, product shelf-life, health benefit, convenience of use, and profitability, and decreasing input of resources, and transaction costs. However, the overall impact of those novel technologies has not been thoroughly evaluated yet and is of concern to the general public. This presentation will elaborate on these challenges by using examples from the recent past and such to be expected in the near future.

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