

TOPIC: (Bio)analytical Screening of Multiple Chemical Contaminants in Food

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BIOGRAPHY

Christopher Elliott graduated from the University of Ulster with a Masters degree in Biomedical Science. He went to go complete a PhD at Queens University on the subject of veterinary drug residue analysis. Chris is currently Professor of Food Safety and Director of the Institute of Agri-Food and Land Use at Queen's University, Belfast.

Since 1986 Chris has been active in research related to veterinary drug residue analysis and has specialised in using immunochemical based screening technologies. He has published more than 150 papers in this area. In more recent times much of his research has been focused on developing biosensor based assays for drugs and toxins in many agri-food commodities. Chris co-ordinates a large EU project entitled Biocop, which is developing new technologies for chemical food safety control.

He is also one of the founding members of the International Drug Residue School (SARAF) based in France. Chris acts as a scientific adviser to the EU, United Nations & NATO on matters relating to chemical food safety.

ABSTRACT

Bioanalytical Screening of Multiple Chemical Contaminants in Foods

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Chemical contaminant monitoring in foodstuffs is a highly important and complex issue. A huge investment in time and effort is placed on these activities by regulatory and industrial laboratories. As fresh demands from consumers and regulators grow to improve the quality and safety of food the need for improved technologies has never been greater.

The range of contaminants that have to be dealt with are enormous, compounds such as drugs, toxins, heavy metals and pesticides are only a selection of these. The detrimental effects each of these have on the consumer is still a subject of great debate and opinions differ widely. Some believe that minute traces of chemicals in foods are an irrelevance to consumer protection while others believe that the problems are not fully understood and may have a major impact on health related problems.

The presentation will give an overview of the research performed as part of a large EC funded project Biocop. Particular reference will be made to the development and validation of methods which detect the biological effect of the contaminants rather than measuring the contaminants themselves. A perspective on how such innovative methods can be used to provide safer food for the European consumer will be given.

Keywords: Chemical, Contaminants, screening, Biocop

Acknowledgement: FP6 Food Safety Programme