In late 2008, high levels of dioxin and dioxin-like PCBs were detected in samples of Irish pork fat that were taken as part of the National Monitoring Programme. An alert recall for all Irish pork and bacon products was issued at home and in countries to which these products had been exported. Consumers were advised, as a precautionary measure, not to consume Irish pork and bacon products and to dispose of any purchased since September 2008. The source of the contamination was traced to a single feed production plant.

The economic impact on the Irish pig meat industry was severe. The nature of the processing system prevented any separation of contaminated from uncontaminated pig meat products. This resulted in a blanket recall with obvious negative ramifications for an industry worth approximately €350 million with thousands of employees.

From the outset, consumers were assured that there was no immediate risk to public health from short term exposure. The EFSA risk assessment concluded that even ‘very extreme’ cases of consumption of totally contaminated Irish pork would not necessarily lead to adverse health effects, despite the World Health Organisation guideline intake limits for dioxin being breached. For more likely consumption scenarios, the potential contribution to the body burden of dioxin due to exposure from contaminated Irish pork was of no concern. Body burden increases would have remained within the range of average dioxin body burdens for people living in industrialised countries.

This conference will highlight current knowledge regarding the intrinsic hazards to human health and the environment from dioxin exposure as well as the sources of that exposure. The impact of dioxin ‘events’ on the economy and consumer confidence will be discussed and the central role of toxicology in the provision of safe food will be highlighted using the Irish pork dioxin crisis of 2008 as a case study.