of the US Environmental Protection Agency is also considered when available.

The in vitro genotoxicity testing is reviewed, inconsistencies in the results of studies detecting the same genotoxic endpoint are presented and the relevance of the in vitro positive results is discussed. Moreover, the in vivo follow-up testing approach is also discussed. The bioavailability of the test substances in tissues tested for genotoxic effects is evaluated after considering ADME data. The outcome of the genotoxicity evaluation is considered in respect to carcinogenicity and the genotoxicity testing in tissues with high tumour incidence is reported. Furthermore, different conclusions between EU and US-EPA risk assessments regarding genotoxicity and carcinogenicity are reported.

Overall, it is evident that the genotoxicity testing battery for a considerable number of active substances, presents inconsistent results, improper follow-ups or even lack of further investigation on tumour bearing tissues. These shortcomings may compromise the reliability of the existing genotoxicity testing of active substances used in plant protection products and highlight the need for development of new official guidelines and approaches updating the field of regulatory genetic toxicology.

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P106-024
Anti-obesity drugs: The role of dieticians in monitoring side effects and toxicity

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Obesity and overweight are chronic conditions associated with hypertension, hyperlipidemia, diabetes etc. Among the medications used for weight loss from the last 15 years the most popular contained fen-fluramine, dexfen-fluramine, rimonabant, sibutramine, orlistat etc. Fen- and dexfen-fluramine are not used since 1997–1998, due to their association with cardiac valvulopathy. Rimonabant, a selective blocker of the cannabinoid receptor CB1 is associated with psychiatric problems (mainly depression and anxiety) and the marketing authorisation of the relevant drug was suspended by the European Medicines Agency (EMA) in 2008. Sibutramine is a centrally acting agent that inhibits serotonin and norepinephrine reuptake; marketing authorisation of the relevant drugs was suspended by EMA in 2010 due to association with increases in heart rate and blood pressure. Finally, orlistat, a triacylglycerol lipase inhibitor that works in the intestinal lumen to reduce dietary fat absorption produces gastrointestinal side effects (as abdominal pain, fecal urgency etc) in 15–30% of the patients under treatment. The history of anti-obesity drugs clearly shows the need of human (epidemiological and clinical) data application to risk assessment in regulatory purposes, as well as of team approach in order to achieve satisfactory results: the clinicians require the help of dieticians, nurses, behaviourists etc. After all, although widely prescribed, these drugs should only be considered as one component of weight reduction programs. Especially dieticians can suggest and supervise appropriate calorie-restricted diets, offer intensive behavioural dietary counselling to the obese patients and work with their family also. Furthermore, severely obese patients must be treated in dietetics centres or hospital metabolic units. As new anti-obesity drugs will be developed, alternative efficient strategies are necessary for faster assessment of their possible side effects and toxicity in humans. Such strategies may attribute a more active role to dieticians, concerning reporting unexpected clinical outcomes even if they seem minor or irrelevant.

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P106-025
Aflatoxin M1 contamination in different types of milk: A risk for public health?

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Aflatoxin M1 (AFM1) appears in milk and dairy products, as a result of ingestion of contaminated feed with aflatoxin B1 (AFB1). Early human exposure to AFM1, mainly in children, is an important issue for public health in several countries, being AFM1 a possible carcinogenic compound from humans (IARC, group 2B). AFM1 is not destroyed during pasteurization or boiling process. The aim of our study was to assess the AFM1 milk contamination in our region during the winter. Samples were collected in convenience stores and allocated according the type of milk (pasteurized or ultra pasteurized; light or whole). The milk samples were randomly selected and analyzed for AFM1 with the ELISA technique. The results show that AFM1 levels were detected in 100% of the samples, exceeding the approved limit for milk, according to Codex Alimentarius and Norma Oficial Mexicana. There were not any differences among milk types. These results show a potential risk for public health, because ingestion of AFM1 contaminated milk, could develop toxic effects. We must insist milk producers to keep dairy cattle feeds free of AFB1 contamination, in order to avoid AFM1 residues in milk and dairy products ingested by population.

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P106-026
Are occupational exposure limits still an effective tool for chemicals risk management at the work place?

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Chemicals in the occupational setting are well known to pose a variety of health risks to workers, and are accordingly subject to risk management measures. In Sweden, as well as many other countries, occupational exposure limits (OELs) are presented as an important tool for managing chemical risks. However, measurements to ensure compliance with OELs have decreased significantly and the question is to what extent the OELs still perform their function, and through which mechanisms. By performing interviews at a number of different workplaces in Sweden, that handle chemicals, we will try to identify regulatory, social and organizational factors that influence the risk perception and communication at workplaces and also investigate the role played by OELs in these processes. Previous research on risk management at the workplace has often been focused on physical risks or accident prevention. We believe that the management, communication and perception of chemical risks differ significantly in their nature from most physical risks, since exposures to harmful chemicals generally lead to delayed and unpredictable effects and individuals tend to estimate risks with delayed effects lower than if the consequences are immediate.

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