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BOOK OF ABSTRACTS

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FOOD SAFETY AND HEALTHY LIVING

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FOOD SAFETY AND HEALTHY LIVING

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C8 XENOBIOTICS IN WATER: THEIR EFFECT ON ANIMAL AND HUMAN WELLBEING

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Water is an indispensable resource for the survival and well-being of living organisms. Water safety can be compromised due to several problems: from the pathogenic microorganisms to natural or industrial contaminants. The first problem concerns the microbiological contamination of water, be it drinkable or superficial. The presence of microorganisms in water is a very important risk for the population.

The presence of chemical contaminants in the water is in some cases difficult to avoid, as in the case of the presence in the soil of a high concentration of metals (arsenic, fluoride). In other cases of the presence of heavy metals can derive from both natural sources and industrial waste. In this case, the most significant metal is mercury.

Water contamination can occur in any part of the planet, but it is evident that the greatest consequences occur in underdeveloped areas, where environmental regulations are less restrictive and the ability to restore water quality is limited.

Many international centres study water contamination and seek solutions; first of all, they need analytical data, normally provided by governments.

From the analytical data, toxicologists draw conclusions on the risk that these contaminants can bring to animal and human health. In fact, contaminants can enter the food chain and lead to toxic events in both animals and humans.

In the presentation some real cases will be presented, with identification of the cause of a possible risk, which will be followed by an estimate of the possible negative consequences on animals and humans.

WHO. Chemical safety of drinking-water. Assessing priorities for risk assessment. https://apps.who.int/iris/bitstream/handle/10665/43285/9789241546768_eng.pdf