



“The intriguing link between chemical exposure and biological effects”

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Over the last 100 years the chemical industry has created a vast quantity of synthetic chemicals which are incorporated into nearly all industrial processes and commercial products and constitute the primary material base of society. Economic growth, employment, improvements in life expectancy, health and living conditions are linked to chemical production. Globally, this chemical production is enormous and projected to continue growing -about 3% per year, rapidly outpacing the rate of global population growth- and this can have severe consequences for the environment and human health under the scenario of water scarcity, climate change and overpopulation. This presentation will provide an overview on the distribution and impacts of potential dangerous chemicals in the environment considering neurotoxicity, endocrine disruption, obesity, stress, reproduction impairment, etc. The link between exposure routes (food, water, air, dust) and the organism biological responses produced by contaminants will be outlined in terms of monitoring, exposure assessment and metabolomics analysis.

