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Editorial

Challenges and Prospects for Research on Microplastics in the Human Food Chain

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Microplastics, small fragments of plastic, are widely distributed in the environment, have become a global concern due to their potential impact on human health and the environment. In recent decades, research has highlighted increasing concentrations of microplastics in various ecosystems, including marine, land and air. However, one aspect that still requires further exploration is the impact of microplastics on the human food chain.

Recent studies show that microplastics have been found in a variety of marine and land organisms that are an integral part of the human diet, including fish, shellfish, other sae foods, salt, sugar, dry fishes, meat, water, honey, and other numerous food items.(1) Naturally, the question of the extent of microplastic contamination in the human food chain is becoming increasingly pressing. Testing and understanding the extent to which microplastics have entered the food and beverages we consume is a critical step in evaluating the health risks associated with long-term exposure to microplastics.(2)

Although some research has been conducted in this fields, there are still significant knowledge gaps that need to be explored. More in-depth research is needed to identify the source, distribution and accumulation of microplastics in various animal and plant species entering the human food chain. This research will help us better understand how microplastics move through ecosystems, the extent of their impact on organisms, and their potential effects on human health.

Here, we encourage researchers to expand this knowledge space through multi-disciplinary approaches, including environmental sciences, biology, chemistry, and health sciences. Holistic and integrated research will provide a more complete understanding of the complexity of this problem and will provide a strong basis for the development of effective policies to reduce exposure to microplastics and protect human health.

We encourage contributions from researchers interested in deepening our understanding of microplastics in the human food chain. Let us face this challenge together with deep concern and commitment to protecting human health and environmental sustainability.

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