

Nanotechnology in Detection of Food Toxins – Focus on the Dairy Products †

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† Presented at Virtual symposium to observe World Antimicrobial Awareness week “Applications of biotechnology and microbiology with special emphasis on Antimicrobial resistance”, 18-24 November 2020, Chennai, India

Received: 10.11.2020; Revised: 15.11.2020; Accepted: 17.11.2020; Published: 10.01.2021

Abstract: Nanotechnology is the field of science which has been recently applied in different field of biomedical sciences, targeted drug delivery, imaging, theranostics, etc. The huge surface area to volume ratio of engineered nanostructures is utilized for designing many biosensors. Food production, processing, packaging, storage, and transport engage many kinds of chemicals and materials, which may contribute some harmful effects on human health. These altogether are named food toxins if their amount exceeds the safe limits for human consumption. The detection of such food toxins can be done using conventional methods but their sensitivity, time, and limit of detection, as well as cost cost-effectiveness, is a matter of concern. Nanotechnology has been used for designing different kinds of biosensors to overcome the barriers of low sensitivity. In this review, we will discuss the application of nanotechnology in the detection of different kinds of food toxins, especially dairy products.

Keywords: food toxins detection; dairy products; biosensors; nanotechnology; food contaminants.

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Funding

This research received no external funding.

Acknowledgments

The authors are grateful to the Chettinad Academy of Research and Education for providing the infrastructural support.

Conflicts of Interest

The authors declare no conflict of interest.