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Sommario/riassunto	<p>Nanotechnology is a fast-evolving discipline that already produces outstanding basic knowledge and industrial applications for the benefit of society. It is a new emerging and fascinating field of science, that permits advanced research in many areas. The first applications of nanotechnology mainly concerned material sciences; applications in the agriculture and food sectors are still emerging. Food science nanotechnology is an area of rising attention that unties new possibilities for the food industry. Due to the rapid population growth there is a need to produce food and beverages in a more efficient, safe and sustainable way. The application of nanotechnology in food has also gained great importance in recent years in view of its potential application to improve production of food crops, enhance nutrition, packaging and food safety overall. The new materials, products and applications are anticipated to bring lots of improvements to the food and related sectors, impacting agriculture and food production, food processing, distribution, storage, sanitation as well as the development of innovative products and sensors for effective detection of contaminants. Therefore, nanotechnology present with a large potential to provide an opportunity for the researchers of food science, food microbiology and other fields, to develop new tools for incorporation of nanoparticles into food system that could augment existing functions and add new ones. However, the number of relative publications currently available is rather small. The present Research Topic aims to</p>

provide with basic information and practical applications regarding all aspects related to the applications of nanotechnology in food science and food microbiology, namely, nanoparticle synthesis, especially through the eco-friendly perspective, potential applications in food processing, biosensor development, alternative strategies for effective pathogenic bacteria monitoring as well as the possible effects on human health and the environment.

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