Journal of Food Quality

Special Issue on

Toxigenic Bacteria in Minimally Processed Foods and Control Technologies

CALL FOR PAPERS

In recent years, there has been a clear tendency in the food industry to develop innovative technologies aiming to provide consumers with healthier and safer foods. Different approaches have been suggested to improve the overall quality of the food supply in order to ensure, beyond nutrient provision, the highest protection possible to consumers' health. This trend is more challenging as it is paralleled by increased consumers' demand for minimally processed foods free from chemical additives, and those that has not undergone unconventional treatments, such as irradiation, exposure to microwaves, or nanotechnology techniques. Because of the mild processing conditions of the former food category, they may put consumers' health at higher risk. This is especially relevant to the persistence of microbial pathogens and/or their toxins usually requiring harsh physical or chemical treatments to be removed. Indeed, despite the diversity of the types of hazards that can compromise food safety and keeping quality, it is well established that those of microbial origin are the most frequently associated with food-borne diseases. The incidence of these hazards may increase with mild preservation treatments in conjunction with limited use of chemical preservatives. Therefore, intensive research work is being conducted worldwide to design innovative technologies aiming to improve the hygienic quality of foods by targeting specific pathogens or toxins without using chemicals, harsh physical treatments, or other technologies that would raise skepticism in consumers.

This special issue is devoted to research articles and reviews on the occurrence of toxigenic bacteria and/or their toxins in foods, which compromises their overall hygienic quality making them unsafe for consumption. Preference will be given to the development of innovative control means to reduce the incidence of toxigenic bacteria and their toxins in minimally processed and organic foods.

Potential topics include but are not limited to the following:

- Occurrence of toxigenic bacteria and their toxins and biocontrol by natural preservation techniques (e.g., drying, acidification, alkalinization, fermentation, and use of medicinal plant extracts), separately or in combination (hurdle technology)
- Incidence of toxigenic bacteria and/or their toxins in of non-heat-treated fermented foods (i.e., traditional fermented milks and typical cheeses, sauerkraut, fermented olives, and kimchi)
- Design and efficacy of innovative food preservation technologies to inhibit/inactivate bacterial pathogens or their toxins in foods (e.g., smart packaging using biological antimicrobials/antitoxins, controlled atmosphere packaging, and in situ generation/release of antimicrobial peptides)

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jfq/tbfs/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor
Noreddine Benkerroum, McGill University, Montreal, Canada
n.benkerroum@gmail.com

Guest Editors
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jcastro@uaeh.edu.mx

Anas Al-Nabulsi, Jordan University of Science and Technology (JUST), Irbid, Jordan
anas_nabulsi@just.edu.jo

Submission Deadline
Friday, 18 May 2018

Publication Date
October 2018