

# Microbiology & Applied Microbiology

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## Evaluation of the postbiotic potential of the fermentation of five lactic acid bacteria isolated from aguamiel

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In Mexico, according to the traditional pharmacopoeia, the consumption of fermented beverages, such as aguamiel, has been associated with numerous nutritional benefits due to the presence of lactic acid bacteria with probiotic potential. Furthermore, the bacteria isolated from aguamiel have shown significant antimicrobial activity, in addition to representing a rich source of iron, ascorbic acid, riboflavin, and bioactive steroid saponins.

One of the main mechanisms of action of these probiotic bacteria is the production of antimicrobial metabolites such as bacteriocins, enzymes and organic acids, which can stimulate the response of the immune system, improve the absorption

and digestion of food, and reduce the growth of pathogenic flora. For this reason, the purification of these by-products of fermentation that provide benefits to the host (known as postbiotics) has the potential to be used as adjuvants in the treatment and prevention of infectious diseases.

### Speaker Biography

Maríel Ortega completed her studies in biotechnology engineering, with a minor in molecular biology, at the tecnológico de monterrey university in Mexico. Currently, at the age of 24, she is studying a master's degree in biotechnology with special focus on the potential of traditional mexican fermented foods in health.

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