Are *Listeria* spp. present in food and food-processing surfaces similar to clinical isolates?

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*Listeria monocytogenes* is an emerging pathogen commonly associated with foodborne infections and responsible for high mortality rates. Most listerioses are in fact attributed to this species, but there are also reports of human infections caused by *L. seeligeri*, *L. innocua* and *L. welshimeri*.

Given their ability to survive in harsh and diversified conditions, *Listeria* are abundantly present in several environments. Regarding their wide dissemination and the health risk associated with the presence of *Listeria* (especially *L. monocytogenes*) in food and food-processing surfaces, we screened for the occurrence of *Listeria* spp. in distinct environments (cheesemaking factory, slaughterhouse, supermarket) and compared the food-related isolates with clinical/pathogenic members of this genus.

After isolation and application of conventional phenotypic methods (e.g. Gram staining, cellular morphology, catalase/oxidase activities) we obtained a total of 88 presumptive *Listeria* spp.; fourteen clinical isolates obtained from collaborating laboratories where also included for comparison purposes. Molecular methodologies applied to all the isolates under analysis confirmed genus allocation and identified 56 isolates as members of the species *L. monocytogenes*. Subsequently, in order to evaluate the genetic diversity of the food-related isolates and further assess for their similarity with the clinical strains we performed ERIC-PCR and PCR-fingerprinting using M13-primer. Amplification patterns were used to build a dendrogram, using the BioNumerics software, which allowed observing high similarity levels between food-related and clinical *Listeria*. These results suggest a high pathogenicity potential of the isolates under analysis and point to a need for further studies regarding antibiotic susceptibility and the presence of virulence factors.