Editorial

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Lactic acid bacteria are of considerable importance for industrial applications such as food and feed fermentations. In addition, health and nutritional benefits have been attributed to the lactic acid bacteria. To explore the potential of lactic acid bacteria in the manufacturing of fermented foods, various genetic, biochemical, biophysical and application-oriented studies have been described for this group of microorganisms. These studies have led to the development of genetic tools, the unravelling of important metabolic pathways, and the intensive application of lactic acid bacteria in the production of safe and wholesome foods. In addition, key enzymes of carbohydrate metabolism, proteolysis and bacteriocin production have been characterized at the biochemical and genetic level. These developments have opened ways to improve lactic acid bacteria by genetic, metabolic and protein engineering.

The advancements in the research on lactic acid bacteria will be discussed for the fourth time at a FEMS Symposium that is held from September 5–9, 1993 in Noordwijkerhout, the Netherlands. The progress in the various areas of research is reviewed in the present issue of *FEMS Microbiology Reviews*. The reviews are grouped in three different areas: Genetics, Metabolism and Applications. However, due to the integration of the various disciplines of research, some papers present an overview that could be included in more than of one of these different areas.

All papers are written by experts in the field, and together these contributions provide an excellent overview of our present knowledge of lactic acid bacteria, their use in the food industry, and their potential in promoting human and animal health and nutrition.

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