
Foreword

Milk and dairy products have long been considered as a »healthy food« and an essential component of a diet. Today we know that milk contains an array of bioactive peptides and is repleted with antioxidants, highly absorbable calcium, conjugated linoleic acid and other biologically active components. Furthermore, a wide range of products can be obtained from this nourishing liquid. In future, it will be possible, by introducing gene technology to the animal breeding, to change the milk composition through selection of certain lactoprotein alleles or *via* metabolic pathways, which regulate fat and lactose synthesis. Thus, it will be possible to alter the cheese making ability of milk or adapt milk composition to the requirements of modern human nutrition.

Increasing scientific evidence confirms the connection between many chronic diseases and unbalanced diet. This message has already reached the consumers and food industry has responded. The market of so called functional foods is therefore expanding worldwide. Within this category, dairy products containing lactic acid bacteria have become of high importance. The emergence of molecular biology and gene technology has enabled a more thorough investigation and understanding of the role of lactic acid bacteria in the transformation of milk. The health and nutritional effects of lactic acid bacteria are becoming more and more comprehensible. When fermented milk is enriched with probiotic bacteria and prebiotics, it meets all requirements of functional food. New strains of probiotic bacteria are constantly being identified. Prior to incorporating new strains into products their probiotic properties and efficacy should be carefully assessed by *in vitro* and *in vivo* studies. Therefore, many research efforts are focused on improved methodologies needed for screening new strains in order to facilitate rapid identification of specific properties suitable for a particular purpose.

Today, the dairy industry must utilize modern analytical methods to assure the production of chemically and microbiologically safe products, as well as modern technologies, including fermentation technology to fulfil all demands of the market. Thus, the intensive collaboration between industry and fundamental research is vital. Bearing this in mind, the 2nd Slovenian Congress with international participation, entitled *Milk and Dairy Products* was organized in Portorož, Slovenia from 14th to 16th November, 1999. The problems concerning milk production in future, processing and marketing of dairy food were discussed. Special attention was focused on the role of milk and milk products in nutrition. Main topics were covered by invited speakers, the recent research and development results were presented as short presentations and posters. Selected papers covering results concerning technology, microbiology and nutrition problems are presented in this special issue of *Food Technology and Biotechnology*. I am inviting you to have a look and read them.

Guest Editor
Professor Irena Rogelj
