

# Preface

Food proteomics constitute at this moment one of the most relevant and fast developing areas in food science. This is a very dynamic field, developing and changing very rapidly in recent years. This book provides readers with the recent advances and state of the art in food proteomics.

To achieve this goal, the book is divided into two approaches containing a total of 28 chapters. The first part deals with the principles of proteomics, especially focused to understand the proteome, the extraction and fractionation techniques for proteins and peptides, followed by separation techniques such as 2-D electrophoresis and chromatography and the mass spectrometry applications and search in protein databases. The second part is focused on the applications in foods. This part deals with quality issues related to post-mortem processes in animal foods and quality traits for a wide variety of foods such as meat, fish, dairy, eggs, wine, beer, cereals, fruits, and vegetables, but also for the identification of bioactive peptides and proteins which are very important from a nutritional point of view. Furthermore, consumers are now extremely susceptible towards food safety issues and proteomics can help in assuring different safety aspects including food authenticity, detection of animal species in the food, markers of pathogen microorganisms, or identification of prions. All these issues are considered in this book.

This book is written by 72 distinguished international contributors from 15 countries with solid experience and reputation, bringing together the existing knowledge with the current and future potential applications of proteomics in food science and technology. We wish to thank the production team at Springer and to express our gratitude to Susan Safren (Senior Editor) and Rita Beck (Assistant Editor) for their kind assistance in this book.

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