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## Preface

The field of Proteomics has various interesting emerging technologies that allow the quantitative analysis of hundreds to thousands of proteins in a biological system of interest. In the past few years, there was a steep increase in the application of proteomics to examine the molecular mechanisms underlying (mal-)functioning of the nervous system and brain disorders, which in many cases has yielded novel insights. Since neuroproteomics is a new research field involving the use of a number of high-end analytical instruments and technologies, both promises and pitfalls may not be well appreciated by the researchers. Equally, the way to design a proper proteomics experiment may not be obvious for an average neuroscientist. Presented in this single volume, *Neuroproteomics* has 21 chapters covering aspects of various dimensions of this new technology, together with some established methods that have supporting roles in the workflow of neuroproteomics.

The contributors to book chapters in this volume are active researchers with ample experience in the techniques that they describe. Each chapter provides a step-by-step set of instructions on how to perform the experiments and advice in the NOTES that may help to optimize the experimental conditions. We have covered most of the recent proteomics methods and some of their applications. The chapters introduce readers to the various ways of designing successful neuroproteomics experiments, and the implication of the different experimental designs. The details of the technologies, which can be very analytical in nature, are not the focus of this book. Taken together, I am convinced that these chapters will be of great assistance to the readers wishing to design and execute their own proteomics experiments in an optimal way.

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