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Nota di contenuto	Protein extraction and sample preparation methods for shotgun proteomics with central nervous system cells and brain tissue -- Phosphopeptide enrichment techniques: a pivotal step for phosphoproteomic studies -- Post-Translational Modifications during Brain Development -- Aberrant protein glycosylation in brain cancers, with emphasis on glioblastoma -- Post-Translational Modification in Muscular Dystrophies -- Post-translational Modifications in Parkinson’s Disease -- Histone Modifications in Neurological Disorders -- Mitochondrial dysregulation and the influence in neurodegenerative diseases -- PTMs: A missing piece for schizophrenia studies -- Post-Translational Modifications in Brain Diseases: A Future for Biomarkers -- Index.

Sommario/riassunto

This new volume, a part of the Proteomics, Metabolomics, Interactomics and Systems Biology series, will explain how proteomic studies of post-translational modifications (PTMs) can be applied to neurodegenerative diseases and relevant studies. The goal of the book is to increase awareness among researchers about how PTMs may be helpful in understanding mechanisms in various neurodegenerative diseases through proteomic studies. This book will serve as a tool for those who want to begin work in the proteomics field and explore how to implement PTMs studies into their work. Chapter authors will describe different PTMs enrichment methods developed by experts in the field so that researchers may learn to apply these methods and techniques to new studies. Divided into three sections, chapters will cover sample preparation, data quality, enrichment techniques, guidelines on how to analyze PTMs, and explain the role of PTMs and different brain diseases. Among those topics includes will be brain cancer, SLA disease, Parkinsons disease, muscular dystrophies, and schizophrenia. This volume will be useful for researchers and students studying brain and neurodegenerative diseases who are interested in delving into work with proteomic studies and PTMs. .