1.	Record Nr.	UNINA9910463440103321
	Titolo	The OMICs : applications in neuroscience / / edited by Giovanni Coppola
	Pubbl/distr/stampa	Oxford, England : , : Oxford University Press, , 2014 ©2014
	ISBN	0-19-938980-2 0-19-935499-5
	Descrizione fisica	1 online resource (385 p.)
	Altri autori (Persone)	CoppolaGiovanni
	Disciplina	612.8/2
	Soggetti	Brain - Physiology Genomics Electronic books.
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Cover; THE OMICs; Copyright; CONTENTS; CONTRIBUTORS; PART ONE: DNA; 1. Medical DNA Sequencing in Neuroscience; 2 . Epigenomics: An Overview; 3. The Role of Epigenomics in Genetically Identical Individuals; PART TWO: RNA; 4. Transcriptomics; 5. Decoding Alternative mRNAs in the "Omics" Age; 6. Transcriptomics: From Differential Expression to Coexpression; 7. High-Throughput RNA Interference as a Tool for Discovery in Neuroscience; 8. The Genetics of Gene Expression: Multiple Layers and Multiple Players; PART THREE: PROTEIN; 9. Proteomics 10. Focused Plasma Proteomics for the Study of Brain Aging and NeurodegenerationPART FOUR: CELLS AND CONNECTIONS; 11. Cellomics: Characterization of Neural Subtypes by High-Throughput Methods and Transgenic Mouse Models; 12. Neuroscience and Metabolomics; 13. Brain Connectomics in Man and Mouse; 14. Optogenetics; 15. Characterizing the Gut Microbiome: Role in Brain-Gut Function; PART FIVE: THERAPEUTICS; 16. OMICs in Drug Discovery: From Small Molecule Leads to Clinical Candidates; 17. Pharmacogenomics; PART SIX: OMICsOME: INTEGRATION OF OMICs DATA

Sommario/riassunto	The OMICs: Applications in Neuroscience summarizes the state of the art in high-throughput approaches (collectively known as 'OMICs') in neurology and neuroscience, and is of interest to both neurologists tracking the progress of these methods towards clinical applications, and neuroscientists curious about the most recent advances in this ever-changing field. The explosion of high-throughput assays has introduced large datasets, computational servers, and bioinformatics approaches to neuroscience, and medicine in general. The book includes a rich survey of the most relevant OMICs applications