

1. Record Nr.	UNINA9910298399103321
Autore	Xia Xuhua
Titolo	Bioinformatics and the Cell : Modern Computational Approaches in Genomics, Proteomics and Transcriptomics / / by Xuhua Xia
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-90684-4
Edizione	[2nd ed. 2018.]
Descrizione fisica	1 online resource (494 pages)
Disciplina	570.285
Soggetti	Bioinformatics Proteomics Cytology Evolution (Biology) Cell Biology Evolutionary Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Blast and Fasta -- Sequence alignment -- Contig assembly -- DNA replication and viral evolution -- Gene and motif prediction -- Hidden Markov Models -- Gibbs Sampler -- Bioinformatics and vertebrate mitochondria -- Characterizing translation efficiency -- Protein isoelectric point -- Bioinformatics and Two-Dimensional Protein Separation -- Self-Organizing Map and other clustering Algorithms -- Molecular Phylogenetics -- Fundamentals of Proteomics.
Sommario/riassunto	This second edition integrates the more technical and mathematical aspects of bioinformatics with concrete examples of their application to current research problems in molecular and cellular biology. This broad, unified approach is made possible, in large part, by the very wide scope of Dr. Xia's own research experience. The integration of genomics, proteomics and transcriptomics into a single volume makes this book required reading for anyone entering the new and emerging field of Systems Biology.