CONTENTS IN BRIEF

INC. I VERTSUINC	protein chain by peptide bonds					
PART 1 Bac	kground Basics					
Chapter 1:	The Nucleic Acid World					3
Chapter 2:	Protein Structure					25
Chapter 3:	Dealing With Databases					45
	Torrel, bedginst hor horizon and					
DADT 2 Com	uonco Alignmonto					
PART 2 Seq	uence Alignments			allument fo	Analiantiana Chantan	71
Chapter 4:	Producing and Analyzing Sequence	e Alight	nent	S	Applications Chapter	/1
Chapter 5:	Pairwise Sequence Alignment and Database Searching				Theory Chapter	115
Chapter 6:	Patterns, Profiles, and Multiple Alig	nments	5		Theory Chapter	165
PART 3 Evo	lutionary Processes					
Chapter 7:	Recovering Evolutionary History				Applications Chapter	223
Chapter 8:	Building Phylogenetic Trees				Theory Chapter	267
Uned	The vertices of the second second second				and seen on all of the party of the	
PART 4 Gen	ome Characteristics					
Chanter 9:	Revealing Genome Features				Applications Chapter	317
Chapter 10:	Gene Detection and Genome Ann	otation			Theory Chapter	357
chapter ro.		otation			incory chapter	551
	Summary					
PART 5 Seco	ondary Structures	-				00.000
Chapter 11:	Obtaining Secondary Structure from Sequence				Applications Chapter	411
Chapter 12:	Predicting Secondary Structures				Theory Chapter	461
PART 6 Tert	iary Structures					
Chapter 13:	Modeling Protein Structure				Applications Chapter	521
Chapter 14:	Analyzing Structure-Function Relat	tionship	S		Applications Chapter	567
DL There is a	dassifications of sectors of mumining					
PART 7 Cell	s and Organisms					
Chapter 15:	Protooma and Gona Exprossion Ar	alveic				500
Chapter 15.	Clustoring Mothods and Statistics	laiysis				625
Chapter 10:	Suctoms Biology					667
chapter 17:	Systems biology					007
	Thread more the birth delivery list 724					
APPENDICE	S Background Theory					
Appendix A:	Probability, Information, and Bayes	sian Ana	alysis	Ine acoults		695
Appendix B:	Molecular Energy Functions					700
Appendix C:	Function Optimization					709

xiii