
Contents

<i>Preface</i>	<i>v</i>
<i>Contributors</i>	<i>ix</i>
1. Accessing and Selecting Genetic Markers from Available Resources <i>Christopher G. Bell</i>	1
2. Linkage Analysis <i>Jennifer H. Barrett and M. Dawn Teare</i>	19
3. Association Mapping <i>Jodie N. Painter, Dale R. Nyholt, and Grant W. Montgomery</i>	35
4. The ForeSee (4C) Approach for Integrative Analysis in Gene Discovery <i>Yike Guo, Robin E.J. Munro, Dimitrios Kalaitzopoulos, and Anita Grigoriadis</i>	53
5. R Statistical Tools for Gene Discovery <i>Andrea S. Foulkes and Kinman Au</i>	73
6. In Silico PCR Analysis <i>Bing Yu and Changbin Zhang</i>	91
7. In Silico Analysis of the Exome for Gene Discovery <i>Marcus Hinchcliffe and Paul Webster</i>	109
8. In Silico Knowledge and Content Tracking <i>Herman van Haagen and Barend Mons</i>	129
9. Application of Gene Ontology to Gene Identification <i>Hugo P. Bastos, Bruno Tavares, Catia Pesquita, Daniel Faria, and Francisco M. Couto</i>	141
10. Phenotype Mining for Functional Genomics and Gene Discovery <i>Philip Groth, Ulf Leser, and Bertram Weiss</i>	159
11. Conceptual Thinking for In Silico Prioritization of Candidate Disease Genes <i>Nicki Tiffin</i>	175
12. Web Tools for the Prioritization of Candidate Disease Genes <i>Martin Oti, Sara Ballouz, and Merridee A. Wouters</i>	189
13. Comparative View of In Silico DNA Sequencing Analysis Tools <i>Sissades Tongsima, Anunchai Assawamakin, Jittima Piriyapongsa, and Philip J. Shaw</i>	207

14.	Mutation Surveyor: An In Silico Tool for Sequencing Analysis	223
	<i>Chongmei Dong and Bing Yu</i>	
15.	In Silico Searching for Disease-Associated Functional DNA Variants	239
	<i>Rao Sethumadhavan, C. George Priya Doss, and R. Rajasekaran</i>	
16.	In Silico Prediction of Transcriptional Factor-Binding Sites	251
	<i>Dmitry Y. Oshchepkov and Victor G. Levitsky</i>	
17.	In Silico Prediction of Splice-Affecting Nucleotide Variants	269
	<i>Claude Houdayer</i>	
18.	In Silico Tools for qPCR Assay Design and Data Analysis	283
	<i>Stephen Bustin, Anders Bergkvist, and Tania Nolan</i>	
19.	RNA Structure Prediction	307
	<i>Stephan H. Bernhart</i>	
20.	In Silico Prediction of Post-translational Modifications	325
	<i>Chunmei Liu and Hui Li</i>	
21.	In Silico Protein Motif Discovery and Structural Analysis	341
	<i>Catherine Mooney, Norman Davey, Alberto J.M. Martin, Ian Walsh, Denis C. Shields, and Gianluca Pollastri</i>	
	<i>Index</i>	355



<http://www.springer.com/978-1-61779-175-8>

In Silico Tools for Gene Discovery

Yu, B.; Hinchcliffe, M. (Eds.)

2011, XI, 365 p., Hardcover

ISBN: 978-1-61779-175-8

A product of Humana Press