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Photochemical proteomics; 4.5 General aspects of photoaffinity labelling; 4.6 Photoreactive probes of biomolecules; 4.7 Application to the immunobiology of living cells; 4.8 Multifunctional photoprobes for rapid analysis and screening; 4.9 Advanced application to functional proteomics
4.10 SummaryReferences; 5 Genomic and proteomic analysis of activated human monocytes; 5.1 Primary human monocytes, as a model system; 5.2 Transcriptional profiling of activated monocytes; 5.3 Functional genomics; 5.4 Proteomic analysis of activated human monocytes; References; 6 Bioinformatics as a problem of knowledge representation: applications to some aspects of immunoregulation; 6.1 Introduction; 6.2 Sequences and languages; 6.3 Three-dimensional models; 6.4 Genomes, proteomes, networks; 6.5 Computational tools; 6.6 Information processing in the immune system; 6.7 Concluding remarks
References7 Immune responsiveness of human tumours; 7.1 Introduction; 7.2 Defining tumour immune responsiveness; 7.3 Studying immune responsiveness in human tumours; 7.4 Immune responsiveness in the context of therapy; 7.5 The spatial dimension in the quest for the target; 7.6 Studying the receiving end - tumour as an elusive target for immune recognition; 7.7 The role of the host in determining immune responsiveness; 7.8 Concluding remarks; References; 8 Chemokines regulate leukocyte trafficking and organ-specific metastasis; 8.1 Chemokines and chemokine receptors
8.2 Chemokine receptors in the organ-specific recruitment of tumour cells

Sommario/riassunto

This book provides an overview of key conceptual and molecular technologies being deployed in immunogenomics, followed by detailed evaluations of the impact of genomics and systems biology on important areas such as cancer immunology, autoimmunity, allergy and the response to infection.