

1. Record Nr.	UNINA9910829947003321
Titolo	Leukocyte trafficking [[electronic resource] ] : molecular mechanisms, therapeutic targets, and methods // edited by Alf Hamann and Britta Engelhardt
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2005
ISBN	1-280-85410-3 9786610854103 3-527-60779-X 3-527-60701-3
Descrizione fisica	1 online resource (559 p.)
Altri autori (Persone)	HamannAlf EngelhardtBritta
Disciplina	571.96
Soggetti	Leucocytes Immunology
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	Leukocyte Trafficking; Contents; Preface; Acknowledgements; List of Authors; Color Plates; Part I Molecular Mechanisms; 1 The Multistep Model of Leukocyte Trafficking: A Personal Perspective from 15 Years Later; Acknowledgments; References; 2 Capture and Rolling: Selectins and Their Ligands; 2.1 Introduction; 2.2 Selectins; 2.2.1 L-Selectin; 2.2.2 P-Selectin; 2.2.3 E-Selectin; 2.3 P-Selectin Glycoprotein Ligand 1 and Other Ligands of Selectins; 2.4 Glycosyltransferases; References; 3 Chemokines and Their Receptors: Biochemical, Structural and Biological Properties; 3.1 Introduction 3.2 Chemokines3.3 Chemokine Receptors; 3.4 Role of Chemokines in Lymphocyte and Dendritic Cell Trafficking to and Within Primary and Secondary Lymphoid Organs; 3.4.1 Primary Lymphoid Organs; 3.4.1.1 Bone Marrow; 3.4.1.2 Thymus; 3.4.2 Secondary Lymphoid Organs; 3.4.2.1 Spleen; 3.4.2.2 Lymph Nodes; 3.4.2.3 Mucosa-Associated Lymphoid Tissue; Acknowledgments; References; 4 Mechanisms of Leukocyte Integrin Activation; 4.1 Introduction; 4.2 Modalities of Integrin Activation and the Role of Chemokines; 4.3 Signaling

## Mechanisms Controlling Rapid Integrin Activation

4.4 Chemokines, Integrins and Concurrency in Leukocyte Recruitment4.

5 The Way Ahead; References; 5 Mechanisms of Leukocyte

Transmigration: Role of Immunoglobulin Superfamily Molecules; 5.1

Introduction; 5.2 Leukocyte Migration Through Endothelial Cells; 5.3

Endothelial Cell Junctional Molecules; 5.4 Role of Immunoglobulin

Superfamily Cell Adhesion Molecules in Leukocyte Transmigration; 5.5

Intercellular Adhesion Molecules; 5.5.1 Structure, Ligands, and

Expression Profile; 5.5.2 Role in Leukocyte Transmigration; 5.5.3

Signaling by ICAM-1 and ICAM-2; 5.6 Junctional Adhesion Molecules

5.6.1 Structure, Ligands, and Expression Profile5.6.2 Role in Leukocyte

Transmigration; 5.6.3 Signaling by JAMs; 5.7 PECAM-1 (CD31); 5.7.1

Structure, Ligands, and Expression Profile; 5.7.2 Role in Leukocyte

Transmigration; 5.7.3 Signaling by PECAM-1; 5.8 Role of Additional

Molecules in Regulation of Leukocyte Transmigration; 5.8.1 T Cell

Receptor; 5.8.2 CD99; 5.9 Summary and Future Directions;

Acknowledgments; References; 6 The Endothelial Cell Basement

Membrane and Its Role in Leukocyte Extravasation; 6.1 Introduction;

6.2 Extracellular Matrix of Blood Vessels; 6.2.1 Basement Membranes

6.2.2 Laminins6.3 Function of Endothelial Cell Basement Membranes;

6.3.1 Leukocyte Adhesion and Migration Studies; 6.3.2 Methods of

Investigation of Leukocyte Migration on Extracellular Matrix Substrates;

6.3.3 Murine Inflammatory Models; 6.3.4 Role of Proteases; 6.4

Conclusion; Acknowledgment; References; Part II Trafficking in vivo; 7

Control of Homing Receptor Expression during Lymphocyte

Differentiation, Activation, and Function; 7.1 Introduction; 7.2

Developing Lymphocytes Undergo Programmed Changes in Homing

Receptor Expression

7.3 Control of Homing Receptor Expression During Lymphocyte

Activation and Effector Cell Differentiation

---

### Sommario/riassunto

Written by known specialists in the field, this is a comprehensive and timely overview of a central and expanding topic. Simultaneously an introduction and a description of the latest concepts, findings and methods, the handbook provides basic knowledge on technical issues required for those intending to research in the field. It covers the functional role of involved molecules and the cellular mechanisms, and addresses selected examples for their possible application in therapy -- bridging the gap between trafficking mechanisms and novel therapeutic strategies. In addition, it includes select

---