Record Nr. UNINA9910830726003321 Transcription factors [[electronic resource]]: normal and malignant **Titolo** development of blood cells / / edited by Katya Ravid, Jonathan Licht Pubbl/distr/stampa New York, : Wiley-Liss, c2001 **ISBN** 1-280-36661-3 9786610366613 0-470-34865-8 0-471-46106-7 0-471-22388-3 Descrizione fisica 1 online resource (642 p.) Altri autori (Persone) RavidKatya LichtJonathan D Disciplina 612.1/1 616.15 Soggetti Hematopoiesis Genetic regulation Leukemia - Genetic aspects Transcription factors Genetic transcription Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Note generali Includes index. TRANSCRIPTION FACTORS; CONTENTS; Introduction; Contributors; I Nota di contenuto TRANSCRIPTION FACTORS AND THE MEGAKARYOCYTIC AND ERYTHROID LINEAGES; 1 The Role of GATA-1 and FOG in Erythroid and Megakaryocytic Differentiation; 2 Regulation of Megakaryocyte and Erythroid Differentiation by NF-E2; 3 Transcription Factors Involved in Lineage-Specific Gene Expression During Megakaryopoiesis; 4 Role of TAL1/SCL Transcription Factor in Normal and Leukemic Hematopoiesis; 5 EKLF and the Development of the Erythroid Lineage; II TRANSCRIPTION FACTORS AND THE MYELOID LINEAGE 6 RUNX1(AML1) and CBFB: Genes Required for the Development of All

Definitive Hematopoietic Lineages 7 PU.1 and the Development of the

Myeloid Lineage; 8 CCAAT/Enhancer-Binding Proteins in Myeloid Cells; 9 Homeobox Gene Networks and the Regulation of Hematopoiesis; 10 The Role of Retinoic Acid Receptors in Myeloid Differentiation; 11 Transcriptional Targets of the Vitamin D(3) Receptor During Myeloid Cell Differentiation; III TRANSCRIPTION FACTORS AND THE LYMPHOID LINEAGE; 12 The Role of Ikaros Family Genes in Lymphopcyte Differentiation and Proliferation

13 The Role of PU.1 in B-Lymphocyte Development and Function14 The Role of Pax5 (BSAP) in Early and Late B-Cell Development; 15 Janus Kinases and STAT Family Transcription Factors: Their Role in the Function and Development of Lymphoid Cells; 16 E2A and the Development of B and T Lymphocytes; 17 The Role of BCL-6 in Normal Lymphoid System and non-Hodgkin's Lymphomas; 18 The Role of Octamer Factors and Their Coactivators in the Lymphoid System; 19 The Role of Early B-Cell Factor in B-Lymphocyte Development; IV. TRANSCRIPTION FACTORS INVOLVED IN LEUKEMIAS DUE TO CHROMOSOMAL TRANSLOCATION

20 The Role of RARa and Its Fusion Partners in Acute Promyelocytic Leukemia21 The Leukemogenic Function of the inv(16) Fusion Gene CBFB-MYH11; 22 EVI1 Rearrangements in Malignant Hematopoiesis; 23 t(8; 21) AML and the AML1/ETO Fusion Gene: From Clinical Syndrome to Paradigm for the Molecular Basis of Acute Leukemia; 24 TEL/ETV6 Gene Rearrangements in Human Leukemias; 25 MLL in Normal and Malignant Hematopoiesis; 26 Coactivators and Leukemia: The Acetylation Connection with Translocations Involving CBP, p300, TIF2, MOZ, and MLL; 27 The LMO2 Master Gene

Its Role as a Transcription Regulator Determining Cell Fate in Leukemogenesis and in Hematopoiesis28 The Acetyltransferases CBP and p300: Molecular Integrators of Hematopoietic Transcription Involved in Chromosomal Translocations; V. ONCOGENESIS AND HEMATOPOIESIS; 29 The Roles of the c-myc and c-myb Oncogenes in Hematopoiesis and Leukemogenesis; 30 NF-kB in Cell Life and Death; VI. SUMMARY OF TRANSCRIPTION FACTORS IMPLICATED IN HEMATOPOIESIS: IN VIVO STUDIES; 31 Transcription Factors Implicated in Hematopoiesis: In Vivo Studies

32 Chromosomal Translocations Associated with Disruption of Transcriptional Regulators in Leukemia and Lymphoma

## Sommario/riassunto

The role of transcription factors in activating specific genes in blood cells is an important facet of hematopoiesis. Equally important, however, is the pursuit of genes rearranged and aberrantly activated in leukemias (blood malignancies). Transcription Factors: Normal and Malignant Development of Blood Cells focuses on those major transcription factors involved in activation of lineage-specific gene expression during normal versus malignant development of specific blood lineages, as revealed from gene promoter studies, knockout of transcription factors in mice models, and the