

Hematopathology

[DOWNLOAD HERE](#)

1;Preface;5 2;Contents;7 3;Contributors;8 4;1 Molecular Techniques in Hematopathology;10 4.1; Introduction;10 4.2; Part I: Specimen Collection and Processing;11 4.2.1; Standard Precautions and Safety;11 4.2.2; Patient Identification and Labeling;11 4.2.3; Cell Enrichment and Selection Techniques;12 4.2.4; Source-Specific Requirements to Ensure Nucleic Acid Integrity;13 4.2.4.1; Bone Marrow Aspirates, Whole Blood, and Body Fluids;13 4.2.4.2; Dried Blood Spots (Guthrie Cards);14 4.2.4.3; Fresh Tissue;14 4.2.4.4; Fixed, Paraffin-Embedded Tissue;14 4.3; Part II: Nucleic Acid Extraction, Purification, and Storage;15 4.3.1; Overview;15 4.3.2; Extraction Techniques;16 4.3.2.1; Organic (Phenol--Chloroform);16 4.3.2.2; Inorganic (Chaotropic Salt--Silica Column);17 4.3.2.3; Stability of DNA in Storage;17 4.3.2.4; Stability of RNA in Storage;17 4.3.2.5; Considerations for Long-Term Storage;18 4.4; Part III: Assessment of Nucleic Acid Quality and Quantity;18 4.5; Part IV: Selected Techniques;19 4.5.1; Electrophoresis;19 4.5.2; Restriction Enzymes;22 4.5.3; DNA Sequencing;23 4.5.3.1; Sanger Sequencing;23 4.5.3.2; Pyrosequencing;25 4.5.3.3; Next-Generation Sequencing (NGS);26 4.5.4; Polymerase Chain Reaction;27 4.5.5; Reverse Transcription PCR (RT-PCR);29 4.5.6; Allele-Specific PCR;29 4.5.7; Nested PCR;30 4.5.8; Real-Time PCR;30 4.5.8.1; Signal Detection Options;31 4.5.9; Quantitative Real-Time PCR;32 4.5.10; Methylation-Specific PCR;33 4.5.11; Restriction Site PCR;34 4.5.12; Asymmetric PCR;34 4.5.13; Clonality Assessment;34 4.5.13.1; Overview;34 4.5.13.2; Techniques;37 4.5.13.3; Limitations;39 5;References;40 6;2 Classical and Molecular Cytogenetic Analysis of Hematolymphoid Disorders;48 6.1; Cytogenetic Analysis in the Diagnosis of Hematolymphoid Disorders;49 6.2; Classical Cytogenetic Analysis of Bone Marrow and Leukemic Blood;50 6.2.1; Historical Perspectives;51 6.2.2; Specimen Collection and Storage;52 6.2.3; Specimen Processing and Tissue Culture;53 6.2.4; Culture Harvesting, Slide Preparation, and Staining;55 6.2.5; Guidelines for Microscopic Analysis of Bone Marrow and Leukemic Blood;55 6.2.6; The Karyotype and Cytogenetic Nomenclature;56 6.3; The Molecular Mechanisms Responsible for Chromosomal Rearrangements in Neoplasia;57 6.4; Molecular Cytogenetic (FISH) Analysis of Bone Marrow and Leukemic Blood;59 6.4.1; Basic Principles of Fluorescence In Situ Hybridization;59 6.4.2; Clinical

Indications for FISH Testing in Hematolymphoid Disorders;60 6.4.3; Types of FISH Probes Routinely Used in Hematological Disorders;61 6.4.4; Advantages and Disadvantages of FISH;63 6.5; Diagnostic and Prognostic Cytogenetic Markers in Myeloid Disorders;64 6.5.1; Myeloproliferative Neoplasms (MPN);64 6.5.2; Myelodysplastic Syndromes (MDS);68 6.5.3; Acute Myeloid Leukemia;68 6.6; Diagnostic and Prognostic Cytogenetic Markers in Lymphoid Disorders;72 6.6.1; B-Lymphoblastic Leukemia/Lymphoma with Recurrent Genetic Abnormalities;72 6.6.2; T-Lymphoblastic Leukemia/Lymphoma;75 6.6.3; Chronic Lymphocytic Leukemia/Small Lymphocytic Leukemia;76 6.6.4; Plasma Cell Myeloma;76 6.6.5; Non-Hodgkin Lymphoma;79 6.6.6; Hodgkin Lymphoma;83 6.7; Array-Based Genomic Profiling of Hematolymphoid Disorders;83 7;References;84 8;3 Using Cytogenetic and Molecular Tests in Diagnostic Workups with the WHO Classification 2008;88 8.1; Diagnostic Workups;89 8.2; Chronic Myeloproliferative Disorders;91 8.3; Myelodysplastic Disorders;94 8.4; Acute Leukemias;95 8.4.1; Acute Leukemias with No Specific Cytogenetic Findings;98 8.5; Malignant Lymphomas;99 8.5.1; Some Diagnostic Problems;100 8.5.2; Follicular Lymphoma (FL);101 8.5.3; Mantle Cell Lymphoma (MCL);101 8.5.4; Marginal Zone B-Cell Lymphoma (MZL);102 8.5.5; Diffuse Large B-Cell Lymphoma (DLBCL);102 8.5.6; Burkitt Lymphoma (BL);103 8.5.7; Plasma Cell Neoplasms (PCN);103 8.5.8; T-Cell Lymphomas;104 8.5.9; Anaplastic Large-Cell Lymphomas (ALCL);104 8. EAN/ISBN : 9781607612629 Publisher(s): Springer, Berlin, Springer Science & Business Media Format: ePub/PDF Author(s): Crisan, Domnita

[DOWNLOAD HERE](#)

Similar manuals:

[Flow Cytometry In Hematopathology](#)

[Hematopathology](#)

[Neoplastic Hematopathology](#)

[Non-Neoplastic Hematopathology And Infections](#)

[Veterinary Comparative Hematopathology](#)