Molecular Pathology Book List
Association for Molecular Pathology Training & Education Committee
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Basics/General Genetics: Books


2. The Molecular Basis of Human Disease, 2nd ed

3. Genomic and Personalized Medicine, 2nd ed

4. Medical Genetics (5th Ed)
>> With Student Consult Online Access

5. DNA from A to Z & Back Again
>>Latest edition of the previously titled DNA Simplified: The Hitchhiker's Guide to DNA

6. Molecular Genetic Pathology, 2nd ed
>> Outline format, useful for board review and as a quick reference guide

7. Genomics and Clinical Medicine

8. Fundamentals of Molecular Diagnostics
>>Good, easy to read overview

>>Very readable overview of the field.

10. Thompson & Thompson Genetics in Medicine, 8th ed
>>With Student Consult Online Access

11. Medical Genetics at a Glance, 3rd ed

12. Molecular Pathology in Clinical Practice, 2nd ed
Debra G.B. Leonard
>>Comprehensive resource

13. Molecular Diagnostics, 3rd ed

>>Excellent book
Kenneth Lyons Jones

16. *Principles of Molecular Pathology*
Anthony A. Killeen
>>Readable overview of the field

17. *Human Molecular Genetics, 4th ed.*
Tom Strachan and Andrew P. Read

Charles J. Epstein, Robert Erickson, Anthony Wynshaw-Boris

19. *Diagnostic Molecular Pathology in Practice: A Case-Based Approach*
Iris Schrijver
>>Recommend using as supplement to any of the larger textbooks or series

20. *Genomic Applications in Pathology*
George Jabboure Netto, Iris Schrijver
Springer 2015 ISBN 968-1-4939-0727-4

21. *Essential Concepts in Molecular Pathology*
William B. Coleman and Gregory J. Tsongalis

22. *Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 7th ed*
Carl A. Burtis, David E. Bruns

23. *Clinical Genomics*
Shashikant Kulkarni, John Pfeifer
>>Next generation sequencing techniques for the clinical laboratory

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**Basics/General: Chapters**

1. *Henry’s Clinical Diagnosis and Management by Laboratory Methods (Clinical Diagnosis and Management by Laboratory Methods), 23rd ed*
Richard A. McPherson and Matthew R. Pincus
Saunders 2016 ISBN: 1437709745
>>Parts 8 and 9 Molecular pathology: chapters 65-78

2. *Essentials of Anatomic Pathology, 4th ed*
Liang Cheng and David G. Bostwick, (Eds.)
>>Outline of molecular pathology (ch. 1) and medical genetics (ch. 2)

**Reviews/Study Guides**

1. *Quick Compendium of Molecular Pathology (ASCP Quick Compendium), 3rd ed.*
Daniel D. Mais, Mary Lowery Nordberg

2. *Quick Compendium Companion for Molecular Pathology*
George Leonard, Frank Zuehl, Daniel D. Mais,

Eberhard Passarge
Thieme Medical 2012 ISBN: 3131003642
>>Essential review of genetics

4. *Referenced Review Questions in Pharmacogenomics*
Robert M. White, Sr and Bonny L. Bukaveckas

5. *An A-Z Guide to Pharmacogenomics*
Michael G. Catania

6. *Referenced Review Questions in Molecular Medicine*
Robert M. White, Sr., David W. Brown, and Steven A. Williams
>>750 multiple-choice questions covering a wide range of molecular medicine related topics with short explanation of answer and references for further reading
Methodology
1. From Genes to Genomes: Concepts and Applications of DNA Technology, 3rd ed
Jeremy W. Dale, Malcolm von Schantz and Nicholas Plant

2. Laboratory Guide to Methods in Biochemical Genetics
Nenad Blau, Marius Duran, K. Michael Gibson (Eds.)

3. Calculations for Molecular Biology and Biotechnology: A guide to mathematics in the laboratory, 2nd ed
Frank H. Stephenson

Subspecialty Genetics References
Genetic Counseling
1. Introduction to Risk Calculation in Genetic Counseling, 3rd ed.
Ian D. Young, Oxford University Press 2006 ISBN: 0195305272
>>Very readable guide for learning genetic risk assessment calculations

2. Practical Genetic Counseling, 7th ed.

Forensics
1. Forensic DNA Typing: Biology, Technology and Genetics of STR Markers, 2nd ed.
John M. Butler

2. Forensic DNA Typing Protocols (Methods in Molecular Biology), 2nd ed
William Goodwin

Microbiology
1. Molecular Microbiology: Diagnostic Principles and Practice, 3rd ed
David H. Persing, Fred C. Tenover, Randall T. Hayden, Greet Ieven, Melissa B. Miller and Frederick S. Nolte (Eds.)

2. Manual of Clinical Microbiology, 10th ed
James Versalovic
>>Molecular pathology chapter

3. Molecular Pathology in Clinical Practice: Infectious Diseases
Debra G.B. Leonard

Steven C. Specter, Richard L. Hodinka, Danny L. Wiedbrauk, Stephen A. Young

5. Clinical Virology, 4th ed
Douglas Richman and Richard Whitley

6. Diagnostic Pathology: Infectious Diseases 1st ed
Danny Milner

Transfusion Medicine
1. AABB Technical Manual, 18th ed
Edited by: Mark K. Fung, MD, PhD; Brenda J. Grossman, MD, MPH; Christopher Hillyer, MD; Connie M. Westhoff, PhD, MT(ASCP)SBB
AABB, 2014
>>>Detailed Transfusion Medicine reference manual with information on genetics of blood group antigens, molecular methods and SOP

2. BeadChip Molecular Immunohematology: Toward Routine Donor and Patient Antigen Profiling by DNA Analysis
JoAnn M. Moulds, Paul M. Ness, Steve R. Sloan (Eds.)
Pharmacogenomics
1. Pharmacogenomics (Drugs and the Pharmaceutical Sciences), 2nd ed
   Werner Kalow, Urs B. Meyer, Rachel F. Tyndale (Eds.)

2. Principles of Pharmacogenetics and Pharmacogenomics
   Russ B. Altman (Editor), David Flockhart (Editor), David B. Goldstein (Eds.)

Biochemical Genetics
1. Pediatric Endocrinology and Inborn Errors of Metabolism, 2nd ed
   Kyriakie Sarafoglou, Georg F. Hoffman, and Karl S. Roth
   >>very readable, good both as a textbook and table provide excellent summaries for quick review

2. Physician’s Guide to Treatment and Follow-up of Metabolic Diseases
   Nenad Blau, Marinus Duran, K. Michael Gibson, Carlo Dionisi-Vici (Eds)

3. Inborn Metabolic Diseases: Diagnosis and Treatment, 5th ed.
   Jean-Marie Saudubray, Matthias R. Baumgartner and John H. Walter (Eds.)
   >> Excellent text and reference

   William L. Nyhan, Bruce A. Barshop, and Aida I Al-Aqeel
   >> Excellent text and reference

   Joe T.R. Clarke

6. Fundamentals of Biochemistry: Life at the Molecular Level, 5th ed
   Donald Voet, Judith G. Voet and Charlotte W. Pratt

General Oncology
1. The Molecular Basis of Human Cancer, 2nd ed
   William B. Coleman and Gregory J. Tsongalis

2. Cell and Tissue Based Molecular Pathology A volume in the Foundations in Diagnostic Pathology Series
   Raymond R. Tubbs and Mark H. Stoler, (Eds.)
   >>Presents molecular methods and their applications in areas of surgical pathology and cytopathology

3. Molecular Genetic Testing in Surgical Pathology
   John P. Pfeifer
   Lippincott Williams & Wilkins 2005 ISBN: 0781747481

4. Molecular Pathology in Clinical Practice: Oncology
   Debra G.B. Leonard

   Lauren Pecorino

6. Molecular Basis of Human Cancer
   C. Nicolini (Eds)
   Springer 2013 ISBN: 1489925651

7. Molecular Testing in Cancer
   George M. Yousef and Serge Jothy (Eds)

8. Molecular Oncology: Causes of Cancer and Targets for Treatment
   Edward P. Gelmann, Charles L. Sawyers, Frank J. Rauscher III (Eds)

9. Molecular Oncology Testing for Solid Tumors
   Michael Ola Idowu, Catherine Isabelle Dumur, Carleton Theodore Garrett
   Springer 2015 ISBN: 978-3-319-16304-8

10. Diagnostic Pathology: Molecular Oncology 1st ed
Hematopathology
   Drew Provan and John Gribben, (Eds.)

2. Molecular Aspects of Hematologic Malignancies: Diagnostic Tools and Clinical Applications (Principles and Practice)
   Michael Witt, Malgorzata Dawidowska and Tomasz Szczepanski

3. Flow cytometry, Immunohistochemistry, and Molecular Genetics for Hematologic Neoplasms
   Tseih Sun

Surgical Pathology
1. IARC WHO Classification of Tumours Series
   Published by the World Health Organization Press
   >> The books are arranged by tumor entity and contain molecular and cytogenetic data as applicable to each entity
   g. Lung, Pleura, Thymus and Heart W.D. Travis, E. Brambilla, H.K. Muller-Hermelink, C.C. Harris (Eds.) 2004 ISBN: 9283224183

2. Diagnostic Pathology and Molecular Genetics of the Thyroid: A Comprehensive Guide for Practicing Thyroid Pathology, 2nd ed.
   Yuri E Nikiforov, Paul W Biddinger, Lester D Thompson
   Lippincott Williams & Wilkins 2012 ISBN: 1451114559

Medical Subspecialties and Genetics
1. Molecular and Genetic Basis of Renal Disease A companion to Brenner and Rector’s The Kidney
   David B. Mount and Martin R. Pollak

2. The Molecular and Genetic Basis of Neurologic and Psychiatric Disease, 5th ed.
   Roger N. Rosenberg and Juan M. Pascual (Eds.)

3. Genetics and Molecular Aspects of Gastrointestinal Disease, An issue of Clinics in Laboratory Medicine
   David C. Whitcomb and Antonia Sepulveda

4. Molecular Pathology in Clinical Practice: Genetics
   Debra G.B. Leonard

5. Molecular Pathology of Nervous System Tumors: Biological and Targeted Therapies
   Matthias A. Karajannis and David Zagzag (Eds)
Reference Books

1. Principles and Practice of Medical Genetics, 5th ed
   David L. Rimoin, J. Micheal Connor, Reed E Pyeritz, and Bruce R Korf

2. The Online Metabolic and Molecular Bases of Inherited Disease
   David Valle, MD, Editor-in-Chief, Arthur L. Beaudet, MD, Editor, Bert Vogelstein, MD, Editor, Kenneth W. Kinzler, Ph.D., Editor, Stylianos E. Antonarakis, MD, D.Sc., Editor, Andrea Ballabio, MD, Editor, K. Michael Gibson, Ph.D., FACMG, Editor, Grant Mitchell, MD, Editor

3. Lewin’s Genes XII, 11th ed
   Jocelyn E. Krebs, Elliot S Goldstein and Stephen T. Kilpatrick

   Bruce Alberts, Alexander Johnson, Julian Lewis, David Morgan, Martin Raff, Keith Roberts and Peter Walter

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The Molecular Pathology Group achieves its goals primarily by a combination of program-related and institute-wide collaborative research leveraging the core laboratory facilities within the NTP/NIEHS, and also through interagency collaborations and contract support. Current projects: Evaluation of spontaneous and chemically induced neoplastic lesions for genetic and epigenetic alterations in NTP studies. Examination of the mode of action of non-genotoxic compounds tested by NTP. Arun Pandiri leads the Molecular Pathology Group within the Cellular and Molecular Pathology Branch. Molecular Pathology In Clinical Medicine is an authoritative, comprehensive textbook that provides the general pathologist in clinical practice, as well as residents and fellows during their training, with the current standard in molecular testing. The text is divided into 8 sections, as defined by the molecular pathology specialty board: genetics, inherited cancers, infectious disease, neoplastic hematopathology, solid tumors, HLA typing, identity testing, and laboratory management. The book integrates the latest advancements in the field with the basic principles and practical applications. Molecular pathology is an emerging discipline within pathology which is focused in the study and diagnosis of disease through the examination of molecules within organs, tissues or bodily fluids. Molecular pathology shares some aspects of practice with both anatomic pathology and clinical pathology, molecular biology, biochemistry, proteomics and genetics, and is sometimes considered a “crossover” discipline. It is multi-disciplinary in nature and focuses mainly on the sub-microscopic aspects of