## Molecular Pathology Book List

**Association for Molecular Pathology Training & Education Committee**

*Updated September 2017; posted online at: [https://www.amp.org/education/education-resources/](https://www.amp.org/education/education-resources/)*

### Basics/General Genetics: Books

| 1. **Basic Concepts of Molecular Pathology Series: Molecular Pathology Library**, Vol. 2. | Cagle, Philip T. Allen, Timothy C. (Eds.)  
|---|---|
| 2. **The Molecular Basis of Human Disease, 2nd ed** | William B. Coleman, Gregory J. Tsongalis (Eds.)  
| 3. **Genomic and Personalized Medicine, 2nd ed** | Huntington F. Willard, Geoffrey S. Ginsburg  
| 4. **Medical Genetics (5th Ed)** | Lynn B. Jorde, John C. Carey, and Michael J. Bamshad,  
*>> With Student Consult Online Access* |
| 5. **DNA from A to Z & Back Again** | Carol A. Holland and Daniel H. Farkas  
*>>Latest edition of the previously titled DNA Simplified: The Hitchhiker's Guide to DNA* |
| 6. **Molecular Genetic Pathology, 2nd ed** | Liang Cheng and David Zhang  
Springer 2013 ISBN: 1461447992  
*>> Outline format, useful for board review and as a quick reference guide* |
| 7. **Genomics and Clinical Medicine** | Dhavendra Kumar and David Weatherall  
| 8. **Fundamentals of Molecular Diagnostics** | David E Bruns, Edward R Ashwood, and Carl A Burtis  
*>>Good, easy to read overview* |
| 9. **Molecular Diagnostics: Fundamentals, Methods, & Clinical Applications, 2nd ed** | Lela Buckingham and Maribeth Flaws  
*>>Very readable overview of the field.* |
| 10. **Thompson & Thompson Genetics in Medicine, 8th ed** | Robert L. Nussbaum, Roderick R. McInnes, and Huntington F. Willard  
*>>With Student Consult Online Access* |
| 11. **Medical Genetics at a Glance, 3rd ed** | Dorian J. Pritchard and Bruce R. Korf  
| 12. **Molecular Pathology in Clinical Practice, 2nd ed** | Debra G.B. Leonard  
*>>Comprehensive resource* |
| 13. **Molecular Diagnostics, 3rd ed** | George P. Patrinos, Wilhelm Ansorge and Phillip B. Danielson (Eds.)  
| 14. **Molecular Diagnostics for the Clinical Laboratorian, 2nd ed.** | William B. Coleman and Gregory J. Tsongalis, (Eds.)  
*>>Excellent book* |
15. Smith's Recognizable Patterns of Human Malformation, 7th ed.
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
>>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

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
7. Practical Surgical Pathology: Integrating Molecular Pathology into Your Morphologic Practice
Kirk Heriot
ASCP 2012 ISBN: 0891895884

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. Specer, 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, Małgorzata Dawidowska and Tomasz Szczepanski

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

4. Hematopathology, 2nd ed
Elaine Sarkin Jaffe, Daniel A. Arber, Elias Campo, Nancy Lee Harris and Leticia Quintanilla-Fend

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


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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Molecular pathology can be broadly defined as the testing of nucleic acids within a clinical context. The applications of molecular diagnostics span a range of human disorders, including hereditary, neoplastic, and infectious diseases. Molecular-based assays are used for specific purposes, including the following: 

- Establishing the basis of an existing disorder (diagnostic testing).
- Determining the presence of a genetic condition when there are no obvious symptoms (predictive testing).
- Carrier testing.
- Assessing a fetus for abnormalities (prenatal testing).
- Detecting cancer-causing ge