

SPECIALIST AND INTERNATIONAL SPECIALIST IN MOLECULAR BIOLOGY, SMB(ASCP) AND SMB(ASCPⁱ)

Suggested Reading for Examination Preparation

This list is intended only as a partial reference source. Its distribution does not indicate endorsement by the American Society for Clinical Pathology Board of Certification (ASCP BOC), nor does the ASCP BOC wish to imply that the content of the examination will be drawn solely from these publications.

JOURNALS

The review of journal articles is highly recommended for success on the SMB exam.

- Horak, P., et al. (2022). [Standards for the classification of pathogenicity of somatic variants in cancer \(oncogenicity\): Joint recommendations of Clinical Genome Resource \(ClinGen\), Cancer Genomics Consortium \(CGC\), and Variant Interpretation for Cancer Consortium \(VICC\)](#). *Genetics in Medicine*, 24(5), 986-998. <https://doi.org/10.1016/j.gim.2022.01.001>
- Jennings, L.J., et al. (2017). [Guidelines for Validation of Next-Generation Sequencing-Based Oncology Panels: A Joint Consensus Recommendation of the Association for Molecular Pathology and College of American Pathologists](#). *The Journal of Molecular Diagnostics*, 19(3), 341–365. <https://doi.org/10.1016/j.jmoldx.2017.01.011>
- Li, M.M., et al. (2017). [Standards and Guidelines for the Interpretation and Reporting of Sequence Variants in Cancer: A Joint Consensus Recommendation of the Association for Molecular Pathology, American Society of Clinical Oncology, and College of American Pathologists](#). *Journal of Molecular Diagnostics*, 19(1), 4–23. <https://doi.org/10.1016/j.jmoldx.2016.10.002>
- Quan, P. L., Sauzade, M., & Brouzes, E. (2018). [dPCR: A Technology Review](#). *Sensors*, 18(4). <https://doi.org/10.3390/s18041271>
- Rehm, H.L., et al. (2013). [ACMG Clinical Laboratory Standards for Next-Generation Sequencing](#). *Genetics in Medicine*, 15(9), 733–747. <https://doi.org/10.1038/gim.2013.92>
- Richards, S., et al. (2015). [Standards and Guidelines for the Interpretation of Sequence Variants: A Joint Consensus Recommendation of the American College of Medical Genetics and Genomics and the Association for Molecular Pathology](#). *Genetics in Medicine*, 17(5), 405–424. <https://doi.org/10.1038/gim.2015.30>

TEXTS

GENERAL MOLECULAR BIOLOGY

- Alberts, B., et al. (2022). [Molecular Biology of the Cell](#) (7th ed.). New York: Garland Science.
- Buckingham, L. (2019). [Molecular Diagnostics: Fundamentals, Methods, & Clinical Applications](#) (3rd ed.). Philadelphia: F.A. Davis Company.
- Coleman, W.B. & Tsongalis, G.J. (Eds.). (2018). [Molecular Pathology: The Molecular Basis of Human Disease](#) (2nd ed.). Elsevier Inc. ****A new edition will be available November 2025****
- Leonard, D.G.B. (Ed.). (2016). [Molecular Pathology in Clinical Practice](#) (2nd ed.). New York: Springer. (Chapters 1 – 2 ONLY)
- Rifai, N., et al. (Eds.). (2018). [Principles and Applications of Molecular Diagnostics](#). Elsevier Inc.

APPLICATIONS OF MOLECULAR SCIENCE

- Cohn, R., Scherer, S., & Hamosh, A. (Eds.). (2023). [Thompson & Thompson Genetics and Genomics in Medicine](#) (9th ed.). Philadelphia, PA: Elsevier Inc.
- Coleman W., & Tsongalis G. (Eds.). (2023). [Diagnostic Molecular Pathology: A Guide to Applied Molecular Testing](#) (2nd ed.). Academic Press.
- DeVita, V.T., et al. (2021). [DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology: Primer of the Molecular Biology of Cancer](#) (3rd ed.). Philadelphia: Wolters Kluwer Health.

Jorde, L.B., Carey, J.C., & Bamshad, M.J. (2019). [*Medical Genetics*](#) (6th ed.). Philadelphia, PA: Elsevier Inc.
Kulkarni, S., & Roy, S. (Eds.). (2015). [*Clinical Genomics: A Guide to Clinical Next Generation Sequencing*](#). Elsevier Inc.
****A new edition will be available July 2025****
Persing, D.H., et al. (Eds.). (2016). [*Molecular Microbiology: Diagnostic Principles and Practice*](#) (3rd ed.). Washington D.C.: ASM Press.

MATHEMATICS

Doucette, L.J. (2021). [*Mathematics for the Clinical Laboratory*](#) (4th ed.). St. Louis: Elsevier.
Stephenson, F.H. (2016). [*Calculations for Molecular Biology and Biotechnology: A Guide to Mathematics in the Laboratory*](#) (3rd ed.). London: Academic Press.

MANAGEMENT

Garcia, L.S., et al. (Eds.). (2024). [*Clinical Laboratory Management*](#) (3rd ed.). Washington D.C.: ASM Press.
Harmening, D.M. (2020). [*Laboratory Management: Principles and Processes*](#) (4th ed.). St. Petersburg: D.H. Pub. & Consulting, Inc.

O N L I N E

Some online resources may require membership or a subscription.

[ACMG Technical Standards for Clinical Genetics Laboratories \(2021 Revision\)](#)
[Association for Molecular Pathology \(AMP\) “Molecular in My Pocket™” Reference Card Series](#)
[American Society for Histocompatibility and Immunogenetics \(ASHI\) Educational Resources](#)
[American Society for Microbiology \(ASM\) Molecular Resources](#)
[Clinical and Laboratory Standards Institute \(CLSI\)](#)
[College of American Pathologists \(CAP\)](#)
[WHO Classification of Tumors Online](#)