

Book Review

Diagnostic and Prognostic Biomarkers and Therapeutic Targets in Melanoma

Edited by Michael J. Murphy, MD
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New York, New York. 322 pages.

A review by Anthony M. Rossi, MD

The fight against melanoma has seen a renaissance with the advent of new therapeutics that are able to target the distinct molecular pathways underlying malignant melanoma. Because of advances in proteomics and molecular biology, new melanoma biomarkers are being discovered that are leading to prognostic and therapeutic breakthroughs. *Diagnostic and Prognostic Biomarkers and Therapeutic Targets in Melanoma*, edited by Michael J. Murphy, MD, is a thorough review of the current state of molecular biomarkers, pathogenesis, staging, and chemotherapeutics for melanoma. For any clinician or researcher, this text is a strong resource for understanding the complex biomarkers currently available for diagnostic and prognostic purposes. Additionally, there is up-to-date staging information highlighting the 2010 American Joint Committee on Cancer key features and changes. Unique to this text is the comprehensive review of the varied molecular biomarkers that are currently being used to study melanoma, including messenger RNA, epigenetic features, microRNA, and mitochondrial DNA. Furthermore, there are multiple chapters devoted to the surgical and medical management of the disease. Nicely edited chapters on molecular targeted therapies, anti-angiogenesis therapies, and immunotherapies are available, with an emphasis on understanding the molecular pathways that underlie these therapies. Because there has been a plethora of knowledge recently added to the pathologic mechanisms of melanoma, it is important to understand the complexities, such as knowing the BRAF pathways as well as novel molecular pathways. The multiple molecular pathways such as Ras/Raf/MEK (ras protein, raf protein, mitogen-activated protein kinase/ERK kinase) that can interact to drive melanoma progression are thoroughly explained and highlighted with the newest medications used to target them. The future of highly targeted therapies for cancer is here, and for any clinician treating malignant melanoma, a solid understanding of these therapies is needed.