

at the end of each chapter, plus full-color photographs and illustrations, facilitate understanding of the complex diseases being discussed. The authors also include a chapter on laboratory tests used in the diagnosis of immunological disorders, thereby allowing the reader to appreciate the importance of laboratory medicine in clinical outcomes. The authors execute their case studies well in the larger context of disease occurrence in the general population, providing a complete overview of the disease process from manifestation diagnosis through treatment. This book is a great study aid and reference guide for all immunologists. It would make an ideal text for anyone interested in understanding immunological disease from both diagnosis and treatment standpoints.

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Making Cancer History: Disease and Discovery at the University of Texas M.D. Anderson Cancer Center. By James S. Olson. Baltimore: The Johns Hopkins University Press; 2009. 392 pp. US \$35.00 Hardcover. ISBN: 978-0801890567.

In 1981, history professor James Olson was diagnosed with epithelioid sarcoma and in 2000, with brain cancer. As a cancer patient, he endured radiation therapy, chemotherapy, brain surgery, and amputation of his left forearm. He uses his own ordeal as an illustrative example in *Making Cancer History*, a meticulous history of the institution where he was treated: the University of Texas M.D. Anderson Cancer Center. Olson combines biographies of prominent M.D. Anderson personalities with the global histories of cancer research and treatment to show how advancements in basic science and patient care have reduced suffering and extended lives. Although he renounces any claim to being dispassionate about the institution that saved his life, Olson tells the story as a historian, not omitting the failures

and controversies that must accompany any mission as ambitious as curing cancer.

Since its establishment in 1941, the M.D. Anderson Cancer Center has followed the philosophy of “treat to cure,” which is echoed in their current mission: “to eliminate cancer in Texas, the nation, and the world.” One of its first presidents, R. Lee Clark, made plans to repurpose the center should a cure for cancer be found within the decade. Such optimism seems incredible, but the progress Olson documents is a testament to the vision of the early pioneers. At the time of the center’s founding, the standard cancer treatment was radical surgery, which removed the tumor, surrounding tissue and lymph nodes, and often involved amputation. In the years that followed, M.D. Anderson sought to replace radical surgery with minimally invasive treatments such as chemotherapy and radiotherapy and became a world leader in cancer prevention and investigation of environmental cancer causes.

Through its almost 70-year history, M.D. Anderson has been headed by only four individuals, and Olson’s book is largely organized around the administrative eras represented by these four men. From this emphasis on leadership emerges one of the book’s central themes: Discovery does not happen in isolation, it is a product of institutional culture which is itself the product of inspired leaders. The administration quickly recognized that treatment of such a complex disease requires two-way interaction between scientists trying to understand the disease and clinicians who have to face the human side of cancer. The institutional structure has been continuously adjusted to maintain a collaborative, multidisciplinary environment. Even Olson’s occasional diversions into dry details such as hospital finance and Texas university politics illustrate the multiple levels on which events and individuals shape an institution.

Although *Making Cancer History* appears to present a limited scope — the history of a single hospital and its people — Olson’s “biography” shows M.D. Anderson both as a microcosm for the worldwide progress against cancer and a model for the

development of a successful medical institution. His story puts the individual struggle against cancer into a larger context, celebrating the courage of survivors, medical professionals, and scientists throughout history.

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Molecular Pathology in Drug Discovery and Development. Edited by J. Suso Platero. Hoboken, NJ: Wiley Inc.; 2009. 349 pp. US \$115 Hardcover. ISBN: 978-0470145593.

As the development of drugs continues to advance in the new decade, the development of molecular biomarkers must likewise advance in order to ensure that patients continue to receive the best possible standard of care. In *Molecular Pathology in Drug Discovery and Development*, editor J. Suso Platero argues that future medical care will need to be tailored to individual patients. In order to facilitate this personalized medicine, Platero states that clinicians and researchers ought to work together to produce biomarkers and therapeutic agents simultaneously, thereby streamlining our ability to understand disease pathology, find drug targets, select patients likely to benefit from a drug, and determine the efficacy of new drugs.

The majority of the book focuses on how molecular biomarkers have been utilized in cancer treatment, although the authors do occasionally touch on other diseases such as HIV/AIDS and cystic fibrosis. Arguably, the work might be improved by a more in-depth discussion of the latter diseases, since the overwhelming focus on cancer leads to a certain level of redundancy between the chapters. On the other hand, it must be acknowledged that the authors' depiction of the historical development of cancer biomarkers is well done. One of the central ideas put forth over the course of the book is that clinicians and researchers should always be open to the development of new biomarkers, rather than preselecting a set of biomarkers

for a given drug. The authors discuss how clinical trials may be conducted in order to discover and incorporate novel biomarkers, thereby improving our understanding of both disease pathology and treatment feasibility.

Molecular Pathology in Drug Discovery and Development also contains a plethora of technical information on how biomarkers should be measured and interpreted. The authors discuss the best ways to generate tissue slides and harvest nucleic acids for analysis. Various pathological techniques are discussed, with special emphasis placed on immunohistochemistry (IHC), transcriptional profiling, and automotiv quantitative analysis (AQUA). Detailed explanations of how biomarkers should be analyzed also are provided, and colored inserts offer readers valuable examples of how histological slides and microarray results may appear.

What may be the main criticism of the book is that the authors prefer to discuss instances in which biomarkers already have been proven to be useful rather than hypothesizing on how biomarkers may evolve in the future. Although the authors do give a brief overview of how AQUA may provide better measurement of biomarkers than IHC, the majority of the information discussed is of a technical nature. It seems as though the work might have benefitted from either an extended discussion of recently developed assays or an analysis of how our current use of biomarkers might be improved. Such a discussion would give readers an idea of how they could contribute to the field.

Overall, *Molecular Pathology in Drug Discovery and Development* is a well-written book that provides both an overview of how biomarkers may be developed and detailed explanations of how to measure and analyze said biomarkers. Although the nature of the book's subject matter may make it more useful to clinicians and scientists interested in treating cancer, its in-depth explanations of various assays make it useful to anyone interested in molecular pathology.

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The University of Texas MD Anderson Cancer Center (colloquially MD Anderson Cancer Center) is a comprehensive cancer center in Houston, Texas. It is the largest cancer center in the US and one of the original three comprehensive cancer centers in the country. It is both a degree-granting academic institution and a cancer treatment and research center located at the Texas Medical Center in Houston. It is affiliated with The University of Texas Health Science Center at Houston. MD Anderson houses one of the largest, most developed cancer prevention programs in the nation, conducting research to assess and manage cancer risk through early detection, genetic counseling and clinical interventions, and implementing prevention programs that include genetic testing, chemoprevention, behavioral and nutritional counseling. More than 6,500 trainees take part each year in educational programs, including advanced degrees at the Graduate School of Biomedical Science covering training from Cancer Biology to Clinical and Translational Science and bachelor's degrees in allied health disciplines. MD Anderson invested approximately \$700 million in research (FY14) which is anticipated to increase with our cancer Moon Shots Program. The University of Texas M. D. Anderson Cancer Center Program. 1515 Holcombe Blvd. Houston, TX 77030 1-877-MDA-6789. No pathology residency program is offered at M.D. Anderson (fellowships only). The best experience in the country given the complexity and the number of bone and soft tissue tumors seen. MD Anderson Cancer Center has regularly been ranked as the top cancer institution in the country and therefore by that virtue, receive the most bone and soft tissue cases in the country.