

Book Review

Larone's Medically Important Fungi – A Guide to Identification, 7th Edition L. F. Westblade, E.M. Burd, S. R. Lockhart and G. W. Procop (Editors) ASM Press/Wiley, 2023 526 pp.

A blind spot in a typical Q.C. microbiology laboratory is the inability to identify fungal isolates to genus and preferably species and assess their risk to recipients of our drug products. Some of us have a copy of Davise Larone's book in our library. The first edition of book written by the then Lenox Hill Hospital mycologist to assist clinicians identify fungi from clinical specimens, appeared in 1975. I checked and found my personal copy, which I purchased from an online secondhand bookseller, to be the 5th edition, published in 2011. As a book reviewer, I see my job is to highlight the value of the book and help you justify purchasing the 7th edition.

Although the book emphasizes clinical mycology, it deserves a place in a pharmaceutical microbiology lab. The contents are divided into four major sections: the basics for the use of the book, microscopic examination of clinical specimens, identification of fungi in culture, basic molecular methods for fungal identification, and laboratory techniques. When confronted by a fungal colony on a plate, the detailed descriptions based on fungal class and mycological infection are very useful to microbiologists. The details include colony and cellular morphology on standard fungal media and incubation conditions, line drawings of the diagnostic features such as the mode of sporulation, color photographs of colonies on a plate, physiological and ecological information, and the species in the genus responsible for common infection. New features in the book are the inclusion of photographs with each description instead of in a separate section which is more convenient, updated information on molecular identification methods, and the preparation of media and strains.

Why do I believe greater access to mycological information is important for pharmaceutical microbiologists and regulators alike? The number of mycologists teaching in our universities has declined resulting in reduced training of graduating microbiologists in this area. Recalls for the presence of objectionable microorganisms in non-sterile drug products documents "unspecified molds" as the second greatest cause of recall after members of *Burkholderia cepacia* complex in liquid dosage forms. The characterization as unspecified molds points to an inability to identify them. Mold grows in non-sterile products at low water activity than bacteria, which increases the risk. Also, although systemic fungal infections are relatively rare compared to bacterial infection, they occur in immunologically disadvantaged patients with high mortality rates, partly due to lack of antifungal agents. Yes, molds need more of our attention.

I highly recommend this book to my pharmaceutical microbiology colleagues.

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