# Preface

Since publication of *Diagnosis and Treatment of Human Mycoses* in 2008 fungi have continued to emerge as important agents of human infection. Fungal infections (mycoses) continue to plague humankind as the at-risk population continues to expand with more immunosuppressive therapies, enlarging populations receiving cancer therapy, and continued support of our most ill in intensive care units and with broad-spectrum antibacterial agents. *Diagnosis and Treatment of Fungal Infections, 2nd Edition* again brings together globally recognized experts to guide readers in the use of our current knowledge to diagnose and treat patients with fungal infections.

In addition to basic and directed culturing techniques, histopathology, serological methods, and radiological studies, molecular biology techniques continue to improve our ability to diagnose fungal infection and identify the offending fungus. Genotypic identification has led to an expansion of our understanding of the fungal pathogens and has led to many new fungi being identified as the cause of human infection. This, and recent changes in taxonomy, can lead to confusion in keeping up with the most proper name for any recovered fungus and difficulty in identifying the appropriate medical literature to review.

We currently have three major classes of antifungal agents to choose from for systemic treatment of fungal infections. These include amphotericin B and the echinocandin and triazole antifungals. Selecting which drug to use can be difficult in the empirical setting and targeted therapy typically requires identification of the pathogen to species level. Antifungal susceptibility testing can assist in selecting the best antifungal drug to use, but clinical correlation of this testing with treatment success remains limited to the *Candida* species.

*Diagnosis and Treatment of Fungal Infection, 2nd Edition* is meant to be a concise text that will provide the busy infectious disease, hematology-oncology, pulmonology, or critical care specialist a practical tool to diagnose and manage fungal infections. In addition, the depth of the material in the text will provide these and other medical specialists and trainees an excellent reference and learning resource.

The text is divided into four parts to guide the reader. Part I provides a general introduction to the epidemiology of fungal infections and presents practical approaches for using patient risk factors, exposures, and site of infection to direct diagnostic evaluations. Part II introduces the science of mycology and the current tools available to diagnose fungal infections using basic clinical mycology laboratory techniques, with molecular biology, histopathology and immunology, and with radiological technologies. Part III provides a review of the available antifungal drugs, their use, and discussion of resistance and antifungal susceptibility testing. Part IV reviews fungal infections (mycoses) in 15 uniform, easy to read chapters, with accompanying tables and figures.

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