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**G.S. de Hoog, J. Guarro, J. Gené, M.J. Figueras:
Atlas of clinical fungi, 2nd edn**

**Centraalbureau voor Schimmelcultures, Utrecht/Universitat Rovira i Virgili, Reus,
Spain, 2000. 1126 pp, 30.5 × 22 cm (ISBN: 90–70351–43–9), 95 Euros**

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Mycology is an important component of the daily duties of the clinical microbiology laboratory. The list of opportunistic fungi is increasing at such an impressive rate that it is hard to remain up to date in this matter. Clinical laboratory technologists must be able to recognize a large group of potential fungal pathogens. Mycological identification, however, can be very difficult because of the importance placed on morphology and the need to know many structures and terms. It is in this frame that the *Atlas of clinical fungi* becomes almost essential. This major reference book, in its second edition, updates and advances the field of medical fungal identification. The main goal of the *Atlas of clinical fungi* is to illustrate the diversity of fungal agents of medical importance, both pathogenic and opportunistic ones. This new edition presents authoritative chapters by investigators that have been working in the field of mycology over the last few decades (Fig. 1).

The first edition of *Atlas of clinical fungi* was edited by G.S. Hoog and J. Guarro in 1995. In this second edition, two more authors, J. Gené and M.J. Figueras, have joined them. Both Gené and Figueras had already co-authored different parts of the first edition of the atlas. The book is divided into 18 sections. In a concise introduction, after a very detailed table of contents, the authors explain how the *Atlas* has been organized. Then, they go into details, starting with an updated classification of the fungal kingdom, which includes phylogenetic aspects and the biosafety levels at which the different species are placed. This is followed by a succinct description of the different diseases due to fungal agents. A new section describes the behavior of fungi depending on their ecological niche and summarizes the relationships between fungi and their mammalian hosts. A review of the main general laboratory techniques used in mycology completes the first part of the book. It includes recipes for the recommended media. These



Fig. 1 The Atlas of clinical fungi, cover

chapters are of great interest, both for laboratory specialists and for clinicians.

Starting on page 54, there are the descriptions of fungi that are implicated in fungal disorders. As a general rule, macro- and microscopic characteristics of cultures, molecular diagnostics and differential diagnosis data, pathogenicity, references, and synonyms are described. In some cases, anti-fungal susceptibility of some species and other supplementary data are detailed. For yeasts, physiologic profiles are given. This main section of the *Atlas* begins with pseudofungi (*Oomycota* and *Mesomycetozoa*). Subsequently, it focuses on *Zygomycota*, followed by yeasts and yeast-like fungi. The authors distinguish fungi that reproduce by basidiospores, *Archiascomycetes*, and those that produce ascospores. Then, strictly filamentous basidiomycetes of medical importance are

included followed by *Ascomycota* and *Coelomycetes*. The last – and by far the longest – section focuses on *Hyphomycetes*. The huge amount of information provided (647 pp), which makes up the largest section of the *Atlas*, reflects the great diversity and significance of this group. The introductory chapters for each group are excellent. The keys to the genera or species are very helpful and understandable. There are also diagrams that introduce the reader to concepts needed to answer the questions posed in the keys. The book ends with a very useful Glossary, an Index of doubtful names and unconfirmed clinical cases, a 164-page list of references, and an alphabetical index of the technical words used in the *Atlas*.

The second edition of the *Atlas* maintains the structure used in the first one. Nevertheless, it introduces changes that have occurred in mycology. The latest classification, newly recognized pathogens, alternative diagnostic techniques, and new information on fungal

infections are included. In my opinion, the second edition is by far better than the first. It includes more keys and more graphs, and the information that one looks for is easier to find. The *Atlas of clinical fungi* presents the fungal biodiversity by means of superb illustrations. Drawings and microphotographs enormously facilitate fungal identification. The *Atlas* allows eager readers who often do not follow the keys, to reach good results by comparing their findings with the pictures. The book offers comprehensive coverage of fungi implicated in medical disorders. To sum up, it is a superlative reference book. The *Atlas of clinical fungi* is highly recommended for medical school libraries as well as clinical laboratories; it is worth its price and its weight (more than 3 kg!). Furthermore, it is a valuable reference book for microbiologists, and is especially convenient for mycologists.