BOOKS RECEIVED

Recent Advances in Mycoplasmology

This large and well-produced hard-cover volume represents the Proceedings of the 7th biennial Congress of the International Organization for Mycoplasmology (IOM) at Baden, near Vienna, in June 1988. Comprising nearly 1000 pages, it begins with three general lectures by invited speakers, but the bulk of the Proceedings consists of some 77 full research papers in 15 sections, and 135 brief communications, representing poster presentations, in 14 sections. It is not a complete record, as several of the original Congress papers and many of the posters are not represented here.

Virtually all the main current areas of mycoplasmological research are covered, including various aspects of human and animal infections due to Mycoplasma and Ureaplasma spp. and of plant infections due to Spiroplasma spp. or MLOs (non-cultivable "mycoplasma-like organisms"), as well as the taxonomy, biochemistry, molecular biology, genetics, cellular biology and immunobiology of mollicutes. However, only a few papers deal with the widespread problem and effects of mycoplasmal contamination of cell cultures.

An individual review cannot adequately assess the varied contents of a volume of such length and breadth, but some papers are worth highlighting. These include one by Hu et al. confirming that the base sequence, UGA, codes for tryptophan synthesis in some mycoplasmas, whereas it is known to be a stop-codon in other organisms, suggesting potential difficulties in cloning mycoplasmal genes containing tryptophan-coding sequences. Another paper by Kotani et al. reports the ability of a mouse-pathogenic spiroplasma, S. mirum, to cause malignant transformation of mouse fibroblasts. Several papers deal with the immunological and genetic relationships between M. pneumoniae and the rare genital isolate, M. genitalium. Unfortunately, there is no reference here to an important new observation actually reported (J. Baseman) at the Congress (and since published elsewhere), that M. genitalium has now been detected by nucleic acid probes and culture in frozen-stored reproductive material from an M. pneumoniae outbreak, raising questions as to its pathogenic potential outside the genital tract. Several papers reinforce observations by Waite, Cassell and colleagues in this and earlier publications, implicating U. urealyticum or M. hominis in fetal or neonatal infections, particularly of the respiratory tract or central nervous system and with associated fetal or infant morbidity and mortality. Other papers reflect the continuing search for effective diagnosis, prophylaxis or therapy for the many animal and poultry diseases caused by mycoplasmas. There is a fairly heavy emphasis on molecular-biological studies. These include some investigations of diagnostic genomic probes, but it seems that, as with human mycoplasma infections, such probes are not yet fulfilling their predicted role in the routine diagnosis of mycoplasmosis.

The main purpose of this type of compendium is as a research record and it is, therefore, no substitute for an orthodox text book if the reader requires primary general knowledge or detailed information about the mollicutes. However, it will certainly provide useful reports and some insights into recent (1988) approaches and advances in mycoplasmology, for those interested in specific areas. As such an individual review would bear no discernible relationship to the caption.

Part 1 of the book (5 chapters) discusses the organisation and function of Clinical Microbiology laboratories and is both interesting and informative. Readers should resist the temptation to skip this part of the book in order to get to the meat of the text. Part 2 (8 chapters) is concerned with the...