

BOOK REVIEW

Kubica, G. P. and Wayne, L. G., eds. *The Mycobacteria: A Sourcebook (in two parts)* (Microbiology Series Volume 15). New York: Marcel Dekker Inc., 1984. Part A 680 pp., Part B 1553 pp., US\$ 245.00, sold only as a set.

This thoroughly comprehensive work is the result of the efforts of 60 contributing experts in mycobacteriology. The editors selected authors who had "a history of productive investigation in the chapter areas assigned" and "who were still fully engaged in pursuit of their subjects."

The 29 chapters comprising Part A cover the intrinsic properties of the mycobacteria. Beginning with systematics, it includes chapters on circumscription of the genus, speciation, characterization by immunodiffusion in immunoelectrophoresis, sensitins, seroagglutination and phage typing. The section on diagnostic methods includes clinical microbiology, susceptibility testing, and immunologically based diagnostic tests. The section on physical and chemical characteristics is the most extensive in the two-book work and contains chapters dealing with electron microscopy, cell wall structure, lipid structure and synthesis, waxes and mycosides, cord factor and related trehalose esters, phospholipids and sulfatides, soluble antigens, antigenic peptidoglycolipids, phospholipids and glycolipids, water soluble adjuvants, tuberculin production and carotenoid pigments. The four chapters on growth and metabolism cover growth of *in vivo*- and *in vitro*-grown pathogens, metabolism of carbohydrates, amino acids, hydrogen peroxide, iron, and other metals. The final four chapters cover genetics, mycobacteriophages, bacteriocins and cell wall deficient forms.

Part B, also containing 29 chapters, deals

primarily with the interactions of mycobacteria with their animal hosts. Under resistance, immunity and toxic responses are chapters dealing with cell-mediated immunity, delayed-type hypersensitivity, chemical and enzymatic factors in resistance to tuberculosis, adjuvanticity of mycobacteria and their components, live vaccines, ribosomal and RNA vaccines, and nonspecific immunity in cancer. This is followed by a section on disease in experimental animals, including nonhuman primates, guinea pigs, mice, rats and rabbits. Disease in humans includes chapters on transmission, pathogenesis, pathology, clinical manifestations, chemotherapy, epidemiology and social and economic impact of tuberculosis, BCG, preventive therapy, *Mycobacterium leprae*, *M. ulcerans*, *M. marinum*, and nontuberculosis mycobacteria and associated diseases. In addition, a section on disease in domestic and feral animals includes *M. tuberculosis* complex, paratuberculosis, *M. avium* complex, *M. lepraemurium*, experimental infections in domestic animals and infection of cold-blooded animals. The final two chapters concern mycobacterial distribution and ecology in nonliving reservoirs, including "nonpathogenic," "opportunistic" and "pathogenic" species. The text concludes with an author and subject index.

As mentioned in the Foreword by Orjan Uchterlony, this source book, with its nearly 7000 citations, should prove to be most valuable as a baseline compilation of selected screened references from the past (through 1981) which can be updated easily by regular computerized literature searches. As such, it "shall retain its value and usefulness for a great many years to come."—Scott G. Franzblau