

PREFACE

Bioenergetics continues to exert a powerful hold in microbiology, especially in microbial physiology, which is, after all, the study of the functions (of microbes) and their parts. The roots of physiology are obscure but Galen of Pergamon (AD 130 to AD 210) wrote anatomical and physiological books in parallel with his duties as physician to the imperial family in Rome. His influential views on physiological medicine were read aloud in early medicine throughout the west by the Reader, and the parts of the anatomy pointed out by the Demonstrator. (We still retain these academic titles.) By the early twentieth century there was a view that life phenomena could be accounted for entirely by the laws of physics and chemistry but more holistic views had been voiced by Claude Bernard in the 1870s and became integrated with the mechanistic views in studies of the nervous system by Sherrington and Henderson the early twentieth century.

It is interesting to note that one of the earliest successes in parallel developments in biochemistry was the study of cell respiration, perfectly described in Keilin's classic book (Keilin, 1966). It is therefore very appropriate that this volume of *Advances in Microbial Physiology* should again bring together physiology and respiration, subject areas with fascinating, rich and long histories. Volumes 61 and 68 have also described earlier advances. Volume 74 brings together an eclectic mix of topical reviews encompassing molecular, genetic, biochemical and morphogenetic aspects.

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Keilin D. The history of cell respiration and cytochrome. Cambridge: Cambridge University Press; 1966.