

Preface

The eukaryotic microbes, fungi and protists, vie with the prokaryotic ones for importance in the affairs of this planet. Fungi are the great recyclers, protists the great photosynthesizers (or, if you prefer, the great predators), to name but two of their life-driving attributes. If these organisms were lacking, the biochemical cycles of matter in nature would have a different quality, one that would not sustain our biosphere as we know it.

Given their importance, it pleases us to present a compendium of chapters on these organisms derived from the *Encyclopedia of Microbiology*, 3rd edition. A few chapters from other sources have also been included; all were written by investigators with authority in their fields. Where appropriate, these contributions have been updated with current

references and a section on future developments. The organization of this book does not follow a proscribed taxonomy, which would be an uncertain endeavor. Rather, the chapters are presented in an order we believe is convenient to the readers.

The terms *fungi* and *protists* are used here *sensu latissimo*. The housing of these two groups between the same covers is unusual; most treatises deal with one or the other. We find this union to be justified. Although these two huge groups do not share a common phylogeny, unless, of course, one traces them back to the early branches, they do share vast habitats where they surely play collaborative roles. Those mainly interested in but one of the two should find ample reasons herein to also explore the other.