

Preface

The number of infectious diseases in the world today seems to be increasing rather than decreasing as one would hope, especially new and emerging viral diseases that either did not exist previously or were not recognized. Despite this, malaria, a parasitic disease caused by *Plasmodium* spp., remains the number one infectious disease worldwide. Almost 12 years have elapsed since the *Dictionary of Parasitology* by Peter J Gosling was published, more than a decade marked by extensive discoveries and developments related to the field of parasitology. The dramatic shift from a parasite-focused subject to a field in which the emphasis is on the interaction between the parasite and its host organism has led to major breakthroughs in understanding the pathobiology of many parasites at a more in-depth level. More exciting is the discovery of the mechanisms by which some helminthic parasites modulate host immune response and their applications in medicine to cure chronic diseases, which are now being translated into therapies that are not only symptomatic but also potentially disease modifying. These research advances have stimulated a broader interest in parasitology among many researchers in other fields, such as medicine and bioscience. Historically, parasitologists have maintained a unique parasite nomenclature (e.g. *Dictyocaulus*, *Dracunculus*, *Leishmania*, *Angiostrongylus*) and terminology (e.g. hypobiosis, vector, xenodiagnosis) that has often puzzled their colleagues in other fields, causing them to associate parasitology to a black box. In the meantime, like most scientific disciplines, parasitology

has become more cross-disciplinary with fast-growing vocabularies, which are new to parasitologists. Therefore, it is necessary to develop a new dictionary to help both parasitologists and non-parasitologists to grasp the contemporary concepts and terms used in modern parasitology and associated scientific areas.

The first edition of the *Illustrated Dictionary of Parasitology in the Post-genomic Era* comes at a time when the topic of 'one health' and its medical, veterinary and environmental impacts are at the forefront of news stories and political discussions. Successful implementation of the 'one health' initiative requires cross-fertilization between different disciplines, which will improve our understanding of the mechanisms underlying host-pathogen dynamic interactions. With over 4500 entries, illustrated with more than 170 images and line drawings, and reflecting ground-breaking advances in parasitology research this dictionary provides, in a single-volume, up-to-date resources for the many terms encountered in contemporary parasitological literature. The dictionary also covers many pertinent terms from related fields of veterinary medicine and life sciences, such as microbiology, genetics, biochemistry, biotechnology, infectious diseases, epidemiology, zoonosis, public health, molecular biology, zoology, pharmaceutical science, environmental science, taxonomy, and population genetics.

This dictionary will serve as a guide for students, academic staff, medical and veterinary professionals, and life scientists, as well as for members of industrial establishments,

governmental agencies and research foundations involved in research activities relating to parasitology and associated scientific fields.

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Hany M. Elsheikha
School of Veterinary Medicine and Science
Faculty of Medicine and Health Sciences
University of Nottingham
Nottingham
UK

Edward L. Jarroll
Department of Biological Sciences
Lehman College
City University of New York
New York, NY
USA