



## Preface

This is the 4th edition of a book that was initiated with the annotation of the function of all the genes in the most commonly studied baculovirus, AcMNPV. It has been almost six years since I reviewed this literature. As a measure of the research that has occurred over this time, Chapter 12 which reviews all the presumptive genes in the AcMNPV genome went from 481 references to 582, a 21% increase. As with the previous editions, this information is then integrated into chapters covering the major processes central to the replication and pathology of baculoviruses. Topics including taxonomy, the application of baculoviruses as insecticides, the molecular basis for the remarkable ability of these viruses to express genes at high levels, and the interrelationships of baculovirus and transposable elements are also covered. The 4<sup>th</sup> edition includes 48 figures and 13 tables, all available for download. Some of the most extensive recent reports cover the reaction of cells during viral infection. Whereas, the viral data is fairly straightforward because of the limited number of genes involved, the data from the host involves thousands of genes or their products. They can be put in categories based on function, but the groups are so large that generalization, is difficult, especially in a general review such as this book, because so many of the genes/proteins react differently to the infection. Therefore, although much data has become available, it is up to the researcher to find and interpret it in terms of their own specific interests. For much of the coming metagenomic and proteomic data, this appears to be our future. I am grateful to Drs. T. Ohkawa and Verne Luckow for their comments and suggestions for this edition and Diana Jordan of Bookshelf, NCBI, NLM, NIH for editing this manuscript.

## License

Except where otherwise indicated, this work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)