

Dear Coauthors,

Here is another try at Chapter 1.

Please send your criticisms right away. We plan to prepare a final version March 6.

Hershey & Dove

Chapter 1

INTRODUCTION TO LAMBDA

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The bacteriophages form a diverse group of viruses that multiply in bacterial cells. This book describes the type called λ together with other phages that can be assigned to the same species. In this chapter we present general characteristics of the species, and explain how λ came to be the subject of intensive study.

Lambda is one of a few well known genetic elements, called episomes, that are able to replicate in the cell either autonomously or as part of the bacterial chromosome. The prototypic episome is the fertility agent F of E. coli. Like λ , it can be dispensed with altogether in the cell economy.

Before reading this book, newcomers to lambda should consult Stents (1963) "Molecular Biology of Bacterial Viruses" for the historical, microbiological, or biochemical background they may need. They should also read Campbell's "Episomes" (1969) for an appreciation of the comparative biology of those elements.