

PREFACE

Rabies is an ancient disease that unfortunately remains an important public health problem in humans. There have been many important research advances extending from our understanding of how rabies virus replicates and assembles to how the disease can be prevented and treated in humans and how rabies can be controlled in wildlife hosts. The vaccination of Joseph Meister by Louis Pasteur and colleagues in 1885 was just one of many important landmarks of our advances against a truly diabolical virus that infects the brain of its vectors and alters behavior, resulting in transmission by biting at a time when the deadly virus is secreted in the saliva. There has been much progress in many different areas, but many challenges remain involving our understanding of rabies virus infection. Only further basic research will give us a better understanding of mechanisms involved in all aspects of the infection, including at the level of the cell and of the host and also in human and animal populations. This knowledge is needed to develop strategies to better combat all aspects of the disease. In addition, rabies virus is now recognized as the best available tool for the study of neuronal circuits in the nervous system and neuroscientists will certainly use it much more in the future.

I would like to express my appreciation to the series editors, Karl Maramorosch and Frederick Murphy, and to Lisa Tickner at Elsevier for giving me the opportunity of putting together a research volume on rabies and to our many contributors, who are all experts in their fields, for their hard work in preparing insightful and up-to-date chapters that summarize our current state of knowledge in diverse aspects of this very interesting and important viral disease.

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