From Biology to Prevention and Treatment

Edited by Frederic D. Bushman, University of Pennsylvania School of Medicine, Gary J. Nabel, NIAID, National Institutes of Health, and Ronald Swanstrom, University of North Carolina at Chapel Hill

The worldwide AIDS epidemic makes research on HIV, the disease processes it induces, and potential HIV therapies among the most critical in biomedical science. Furthermore, the basic biology of HIV infections provides a model for a more general understanding of retroviruses and their hosts.

Written and edited by experts in the field, this volume provides a comprehensive review of HIV research, covering everything from the pathogenesis of HIV infection to prevention. Contributors explore the origins and evolution of HIV, the HIV replication cycle, host–virus interactions, host immune responses, and HIV transmission. Vaccines, cell and gene therapies, antiretroviral drugs, microbicides, and behavioral strategies for the treatment and prevention of HIV infections are also explored.

This volume, which includes discussions of social and economic factors that affect HIV transmission and treatment, is an essential reference for virologists, cell and molecular biologists, and immunologists, as well as epidemiologists, physicians, and other public health professionals.

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This comprehensive volume, which includes discussions of therapeutic strategies that are currently used or under development, is a vital reference for neurobiologists, cell biologists, pathologists, and other scientists pursuing the biological basis of Alzheimer disease, as well as investigators, clinicians, and students interested in its pathogenesis, treatment, and prevention.

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Darwin Would Approve

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The Origin Of A Bioassay Developer,
OriGene has evolved to provide
complete solutions for your
gene-based research and
diagnostic analysis.

Rbfox-mediated alternative splicing, cerebellar
development, and Purkinje cell function

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• Polyamines and the ES cell state
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RNA molecules participate in and regulate a vast array of cellular processes, and the scientific community is now entering a new era in which some aspect of RNA biology—as a tool, a therapeutic, a diagnostic, or part of a fundamental process—is becoming increasingly important. But initiating RNA research can be intimidating, and without a thorough understanding of the challenges and complexities inherent in handling this fragile nucleic acid, forays into the RNA world can be quite frustrating. *RNA: A Laboratory Manual* provides a broad range of up-to-date techniques so that any investigator can confidently handle RNA and carry out meaningful experiments, from the most basic to the most sophisticated.Originating in four of the field's most prominent laboratories and written with novices as well as more advanced researchers in mind, this manual provides the necessary background and strategies for approaching any RNA investigation in addition to detailed step-by-step protocols and extensive tips and troubleshooting information. *RNA: A Laboratory Manual* will enable any researcher to approach a wide variety of RNA-related problems with confidence and a high expectation of success.

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