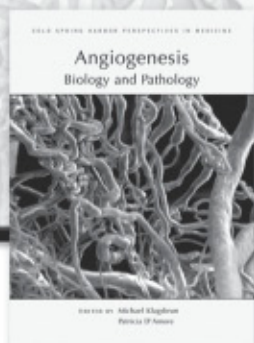




Angiogenesis

Biology and Pathology



Edited by Michael Klagsbrun, *Children's Hospital Boston, Harvard Medical School* and Patricia D'Amore, *Schepens Eye Research Institute, Harvard Medical School*

Angiogenesis is the process by which new blood vessels are generated from preexisting vessels. It is vital for proper embryonic development, patterning of the vascular system, and wound healing. It is rate limiting in cancer progression, because the formation of new blood vessels is essential for growth and survival of tumors.

Written and edited by experts in the field, this volume reviews the mechanisms of angiogenesis that operate in normal development and in diseases such as cancer. The contributors review the biology of endothelial cells, describing the specific roles of tip and stalk cells in vessel sprouting and lumen formation. They discuss the key angiogenic regulators (e.g., vascular endothelial growth factor [VEGF]), as well as antiangiogenic agents including microRNAs, thrombospondins, and semaphorins. Therapeutic approaches that target pathological angiogenesis, such as the ongoing clinical trials of anti-VEGF drugs, are also covered.

This volume, which includes discussions of other vascular dysfunctions (e.g., arteriovenous malformations) and comparisons between the blood vascular system and the lymphatic system, is a vital reference for developmental and cancer biologists, as well as anyone seeking to understand the biology and pathology of the vascular system.

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Hardcover \$135

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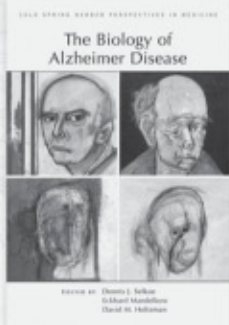
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The Biology of Alzheimer Disease



Edited by Dennis J. Selkoe, *Harvard Medical School*, Eckhard Mandelkow, *Max-Planck-Unit for Structural Molecular Biology*, and David M. Holtzman, *Washington University School of Medicine*

Alzheimer disease causes the gradual deterioration of cognitive function, including severe memory loss and impairments in abstraction and reasoning. Understanding the complex changes that occur in the brain as the disease progresses—including the accumulation of amyloid plaques and neurofibrillary tangles—is critical for the development of successful therapeutic approaches.

Written and edited by leading experts in the field, this volume includes contributions covering all aspects of Alzheimer disease, from our current molecular understanding to therapeutic agents that could be used to treat and, ultimately, prevent it. Contributors discuss the biochemistry and cell biology of amyloid β -protein precursor (APP), tau, presenilin, β -secretase, and apolipoprotein E and

their involvement in Alzheimer disease. They also review the clinical, neuropathological, imaging, and biomarker phenotypes of the disease; genetic alterations associated with the disorder; and epidemiological insights into its causation and pathogenesis.

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.

2011, 511 pp., illus. (63 4C & 9 B&W), index
Hardcover \$135

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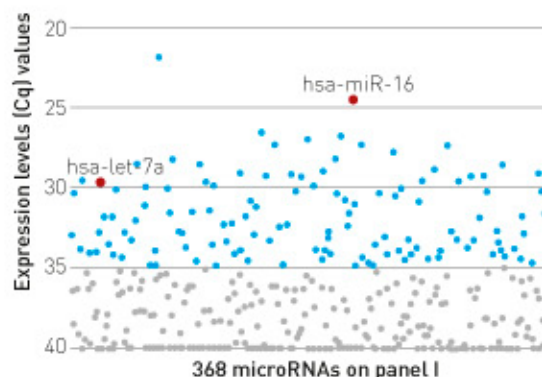
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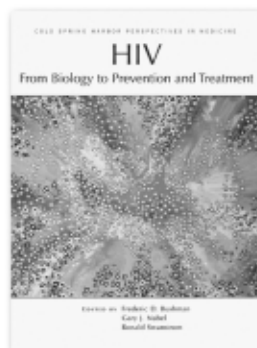


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HIV

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.

2011, 572 pp., illus. (95 4C and 4 B&W), index
Hardcover \$135

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