



RNAi

A GUIDE TO GENE SILENCING

In the past three years, the use of double-stranded RNA to silence gene activity has become widely and rapidly adopted. RNA interference is highly specific and remarkably potent, and it acts on cells and tissues far removed from the site of introduction. The principles behind RNAi are just being uncovered, but this laboratory technique has been applied effectively in a wide variety of animal and plant species. Variations on RNAi are revolutionizing many approaches to experimental biology, complementing traditional genetic technologies with a quicker and less expensive way of mimicking the effects of mutations both in cell cultures and in living animals. Recent advances in the use of RNAi to engineer heritable silencing in mammals, to alter stem cells for organ reconstitution, and to alter the course of disease in model systems indicate that RNAi may have a future in disease therapy.

Written by pioneers in this new field and edited by Gregory Hannon, one of its leading figures, *RNAi: A Guide to Gene Silencing* presents the principles of RNAi and reliable protocols for its laboratory use in *Caenorhabditis elegans*, *Drosophila*, plants, avian embryos, mammalian cells, mouse oocytes, and more.

This important and unique book is an essential laboratory resource for scientists studying gene regulation and for all experimental biologists interested in the emerging practical applications of RNAi.



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