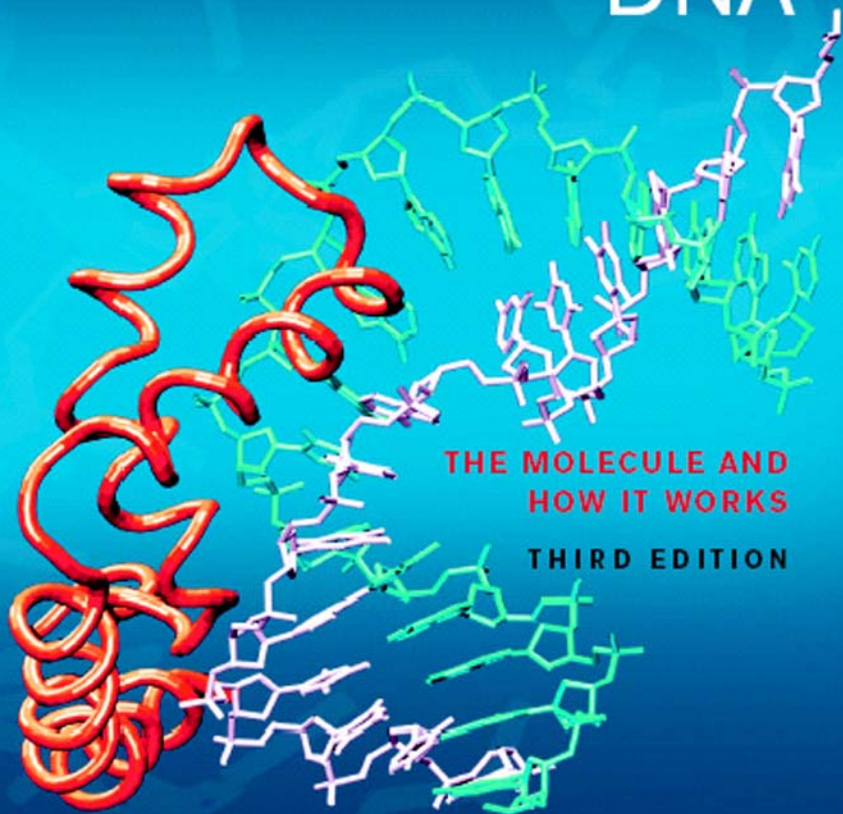




Understanding DNA



**THE MOLECULE AND
HOW IT WORKS**

THIRD EDITION

Chris R Calladine
Horace R Drew
Ben F Luisi
Andrew A Travers

UNDERSTANDING DNA

The Molecule & How It Works

Third Edition

From reviews of earlier editions

A systematic and comprehensive analysis of the structure of DNA from a wonderfully fresh perspective. The book is a systematic effort to understand this fascinating molecule from the inside out, building from the first, and simplest, principles I recommend it very highly.

Trends in Genetics

We see DNA structures so often that it is often taken for granted that the molecule should not be anything but an aesthetically appealing, spiraling helix. But why should it assume such a nice structure? The book offers an absolutely delightful answer to this and other similarly mischievous questions. 'Understanding DNA' is a great book that will surely prove to be a valuable teaching tool.

The Biochemist

Among the strengths of the book are the clarity of the explanations of some quite difficult concepts and the novel way in which certain ideas are treated, perhaps causing the reader to think again about certain aspects of DNA structure. I enjoyed reading this book and would encourage colleagues working in the general area of DNA research to read it.

Heredity

Stylish . . . beautifully crafted, with a logical step-by-step approach to the subject. A book from which the advanced undergraduate will benefit, and which will also generate a refreshing perspective for experts.

Nature

Authoritative and lucid.

Aaron Klug

UNDERSTANDING DNA

The Molecule & How It Works

Third Edition

by

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ELSEVIER
ACADEMIC
PRESS

Amsterdam Boston Heidelberg London New York Oxford Paris
San Diego San Francisco Singapore Sydney Tokyo

This book is printed on acid-free paper.

First Edition 1992

Second Edition 1997

Third Edition 2004

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Elsevier Academic Press
525 B Street, Suite 1900, San Diego, California 92101-4495, USA
<http://www.elsevier.com>

Elsevier Academic Press
84 Theobald's Road, London WC1X 8RR, UK
<http://www.elsevier.com>

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

A catalog record for this title is available from the Library of Congress

ISBN 0-12-155089-3

Typeset by Charon Tec Pvt Ltd, Chennai, India
Printed and bound in Italy

04 05 06 07 08 9 8 7 6 5 4 3 2 1

The cover picture shows a complex between a protein called 'HMG-D' from fly chromosomes, and a particular sequence of DNA to which it binds strongly.

The two strands of double-helical DNA are shown in white and yellow respectively, while the protein is shown with less detail in red.

The strongly curved and untwisted structure of DNA in this complex illustrates our modern understanding of the molecule's biological action, in terms of its three-dimensional structure, which may be recognized and bound specifically by a regulatory protein.

Thus the DNA structure itself contains important information, in addition to the well-known one-dimensional Genetic Code written in the sequence of bases A, T, C and G.

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