

# It's in Your DNA

From Discovery to Structure, Function,  
and Role in Evolution, Cancer, and Aging

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*It's in Your DNA: From Discovery to Structure, Function, and Role in Evolution, Cancer, and Aging* describes, in a clear, approachable manner, the progression of the experiments that eventually led to our current understanding of DNA. This fascinating work tells the whole story from the discovery of DNA and its structure, how it replicates and codes for proteins, and our present ability to analyze and manipulate it in genetic engineering to begin to comprehend the central role of DNA in evolution, cancer, and aging.

While telling the scientific story of DNA, this captivating treatise is further enhanced by brief sketches of the colorful lives and personalities of the key scientists and pioneers of DNA research. Major discoveries by Miescher, Darwin, and Mendel and their impacts are discussed, including the merging of the disciplines of genetics, evolutionary biology, and nucleic acid biochemistry, giving rise to molecular genetics. After tracing development of the gene concept, critical experiments are described and a new biological paradigm, the hologenome concept of evolution, is introduced and described. The final two chapters of the work focus on DNA as it relates to cancer and gerontology.

## Key Features

- Highlights the importance of DNA research to science and medicine
- Explains in a simple and scientifically correct manner the key experiments and concepts that led to knowledge of what DNA is, how it works, and the increasing impact it has on our lives
- Emphasizes the observations and reasoning behind each novel idea and the critical experiments that were performed to test them
- Through advanced understanding of the topic, helps stimulate further research within and beyond life sciences



ACADEMIC PRESS

An imprint of Elsevier  
[elsevier.com/books-and-journals](http://elsevier.com/books-and-journals)

ISBN 978-0-12-812502-1



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