McHUGHEN

## CONTINUED FROM FRONT FLAP

provocative ethical and privacy issues arising from DNA and genetic technologies.

With the author's comprehensive expertise, *DNA Demystified* offers an informal yet authoritative guide to the genetic marvel of DNA.



Alan McHughen is a public sector educator, scientist, and consumer advocate. After earning his doctorate at Oxford University, Dr. McHughen worked at Yale University and the University of Saskatchewan before joining the University of California, Riverside. Dr. McHughen served as a Science Advisor to the Secretary of State (Jefferson Science Fellow) at US Department of State and was recruited to serve as a Senior Policy Analyst at the US Office of the President (Obama Administration). He is the author of six books, including *Pandora's Picnic Basket* (OUP 2000). "DNA Demystified is perfect for the amateur science enthusiast who is fascinated by everything that touches on DNA, from forensics to genetic disease markers to family genealogy. Full of detail and fascinating stories, this is ultimately an absorbing read."

Nina Fedoroff, Penn State University

"This is a highly engaging book that explains the basic process of how genes work and the impact that current advances in DNA research has had on medicine, agriculture, and law, in simple and elegant terms. This wonderful book is designed for those who want to understand what DNA is and how it is changing our lives, with much promise and peril along the way. I found reading Alan McHughen's book a delightful and informative journey into the world of DNA."

**Bob Goldberg**, UCLA and Member of US National Academy of Sciences

"Alan McHughen has superbly explained everything we know about DNA, the beautiful and ingenious coding device at the heart of life. This is a very useful book for all those who fear they cannot understand the science of DNA: they will soon find that they can and it's fascinating.-"

Matt Ridley, author of Genome: The Autobiography of a Species in 23 Chapters

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## Alan McHughen

## **DNA** Demystified

## UNRAVELING THE DOUBLE HELIX

**DNA**, once the exclusive domain of scientists in research labs, is now the darling of popular and social media. With personal genetic testing kits in homes and GMO foods in stores, DNA is an increasingly familiar term. Unfortunately, what people know, or think they know, about DNA and genetics is often confused or incorrect. Contrary to popular belief, for instance, genes don't "skip a generation" and, no, human DNA is not "different" from DNA of other species. With such popular misconceptions proliferating in the news and on the internet, how can anyone sort fact from fiction?

DNA Demystified satisfies the public appetite for and curiosity about DNA and genetics. Alan McHughen, an accomplished academic and public science advocate, brings the reader up-to-speed on what we know, what we don't, and where genetic technologies are taking us. The book begins with the basic groundwork and a brief history of DNA and genetics. Chapters then cover newsworthy topics, including DNA fingerprinting, using DNA in forensic analyses, and identifying coldcase criminals. For readers intrigued by the proliferation of at-home DNA tests, the text includes fascinating explorations of genetic genealogy and family tree construction—crucial for people seeking their biological ancestry. Other chapters describe genetic engineering in medicine and pharmaceuticals, and the use of those same technologies in creating the far more controversial GMOs in food and agriculture. Throughout, the book raises

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