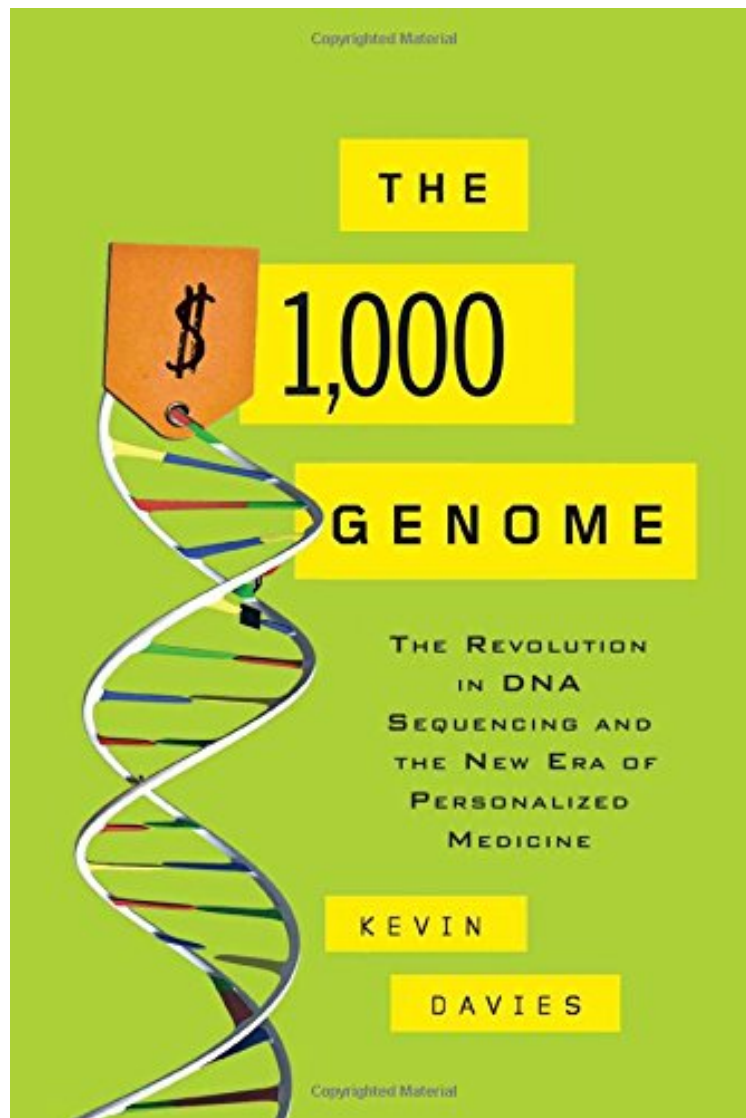


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# The \$1,000 Genome: The Revolution in DNA Sequencing and the New Era of Personalized Medicine

*Kevin Davies*

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**Kevin Davies : The \$1,000 Genome: The Revolution in DNA Sequencing and the New Era of Personalized Medicine** before purchasing it in order to gage whether or not it would be worth my time, and all praised The \$1,000 Genome: The Revolution in DNA Sequencing and the New Era of Personalized Medicine:

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of 0 people found the following review helpful. Great book, interesting topic!By Lorien K DeBruynI am enjoying this book immensely. I find the topic interesting and the writing engaging. I would recommend the book.1 of 2 people found the following review helpful. Outstanding orientation in the world of genomesBy CFLThis book describes various developments in gene sequencing and genome analysis over the last decade or so. It is aimed at non biologists who want a broad idea of what is going on in biomedicine. As such it is a great and easily digestible read.It is not for people who already understand the science.I work in the sector but in the finance department and it gave me a much better idea of what our science folks are up to. I am delighted with it as that is what I was looking for.This book heightened my interest in biomedicine and gave me several new topics to which I will return.I commend it to those with intellectual curiosity and little knowledge of this field.

Since the conclusion of the Human Genome Project in 2003, scientists have been racing towards a grand goal: offering individuals a decoding of their complete genetic makeup for just \$1,000. As Kevin Davies reveals in this exquisitely reported account, the \$1,000 genome will be a reality by 2011 and it will usher in a whole new era of personalized, genomic medicine. Capable of presenting much more advanced information than the current crop of cheek-swab services, the \$1,000 complete genome raises some extraordinary possibilities. We will be able to learn if we have genes that predispose us to a host of diseases, and to take a wide range of preventative measures. Drug companies may be able to create versions of drugs tailored specifically to our individual DNA. But we may also face the psychological burden of learning that we have the gene for an incurable disease, such as Parkinsons. Acclaimed author Kevin Davies introduces the pioneers of this medical revolution and probes deeply into both the medical benefits and ethical issues of personal genetic testing, also exploring the psychological complexities of learning ones DNA results, based on both his own experience of being tested and that of a number of others. The \$1,000 Genome is an indispensable guide to the new era of personalized medicine.

Once only a subject for science fiction movies, whole genome sequencing is rapidly becoming a reality for the masses. So, what does this mean for you?... Davies does a commendable job of answering that question. --The Spittoon (spittoon.23andme.com)Kevin Davies' The \$1,000 Genome deserves to be widely read... It presents a careful and I think entertaining view of the past and possible future of personal genomics. --Keith Robison -- "Omics! Omics" (omicsomics.blogspot.com)In this informative and accessible work of scientific journalism, Englishman Kevin Davies predicts that personalized genome sequencing will soon become so affordable that it will revolutionize medicine. --Winnipeg Free Press``The great impact of a new technology from cotton underwear to the jet to the computer comes not when it is invented, but when it becomes cheap enough to be within the reach of everybody. Gene sequencing has now reached that point. With unrivalled knowledge of the people who made this possible, Kevin Davies eloquently explains how it came about, and hints at what will come next. (Matt Ridley, author of The Rational Optimist)From the AuthorAlthough I've been writing about "the \$1,000 genome" since 2002, it was two key events in 2007 that really sparked the concept for this book. The first was the presentation to Jim Watson in May of his digital genome sequence on a portable hard drive -- the first "personal genome" decoded using a new kind of DNA sequencing technology. Although the cost of Watson's genome was about \$1 million, that was still a fraction of the \$2.3 billion spent on the Human Genome Project. The second was my first conversation with the co-founder of 23andMe, a pioneering consumer genomics company offering tantalizing personal genomic information at an affordable price (less than \$1,000) to the public at large. Since then, tens of thousands of people have sent saliva samples to various consumer genomics firms. In a handful of cases, some recounted in the book, the results are nothing short of life-changing, and possibly life-saving.Since 2007, the cost of genome sequencing has plummeted at an astonishing rate. Today, anyone can get their genome sequenced for less than \$20,000, and that price will inevitably drop to \$1,000 in the coming years as new technologies arrive. Imagine getting a full genome scan as easily and routinely as an MRI -- and without the claustrophobia! Even better, imagine a Star Trek Tricorder device reading your complete genetic code in a matter of minutes! That's a very real possibility in the next few years.The bigger question, however, is whether that is going to make a difference to the health of yourself and your family? Having access to your full genome isn't magically going to reveal whether you're going to develop diabetes, cancer or heart disease, but it is going to become a fundamental part of your medical record. Among the challenges ahead of us discussed in the book: Will our genome data be kept private? Will we be subject to insurance or employment discrimination if we have our DNA sequenced? What can my genome really tell me about my disease risk? Who is going to explain that analysis to me -- not to mention my family doctor? My intention in The \$1,000 Genome isn't necessarily to answer all those questions, but to raise awareness of the rapidly approaching era of genome sequencing and increasingly personalized medicine. The technology will be with us very soon: the medical, legal and health care professions need to start preparing now. As should you!See: youtube.com/watch?v=XXe74r7eYQwfeature=player\_embeddAbout the AuthorKevin Davies, Ph.D., is the author of The \$1,000 Genome. His previous book Cracking the Genome was translated into 15 languages. He is currently Editor-in-Chief of BioIT World, a trade magazine covering the role of technology in the life sciences. He was the founding editor of Nature Genetics, the world's leading genetics journal, which he headed for its first five years. He has also

written for the Times (London), Boston Globe, New England Journal of Medicine, and New Scientist, among others. His first book, *Breakthrough* (co-authored with Michael White) told the story of the race for the BRCA1 breast cancer gene. Davies holds an M.A. in biochemistry from the University of Oxford and a Ph.D in molecular genetics from the University of London. He held postdoctoral fellowships at MIT and Harvard Medical School before moving into science publishing as an editor with Nature magazine. He lives in Lexington, Massachusetts.