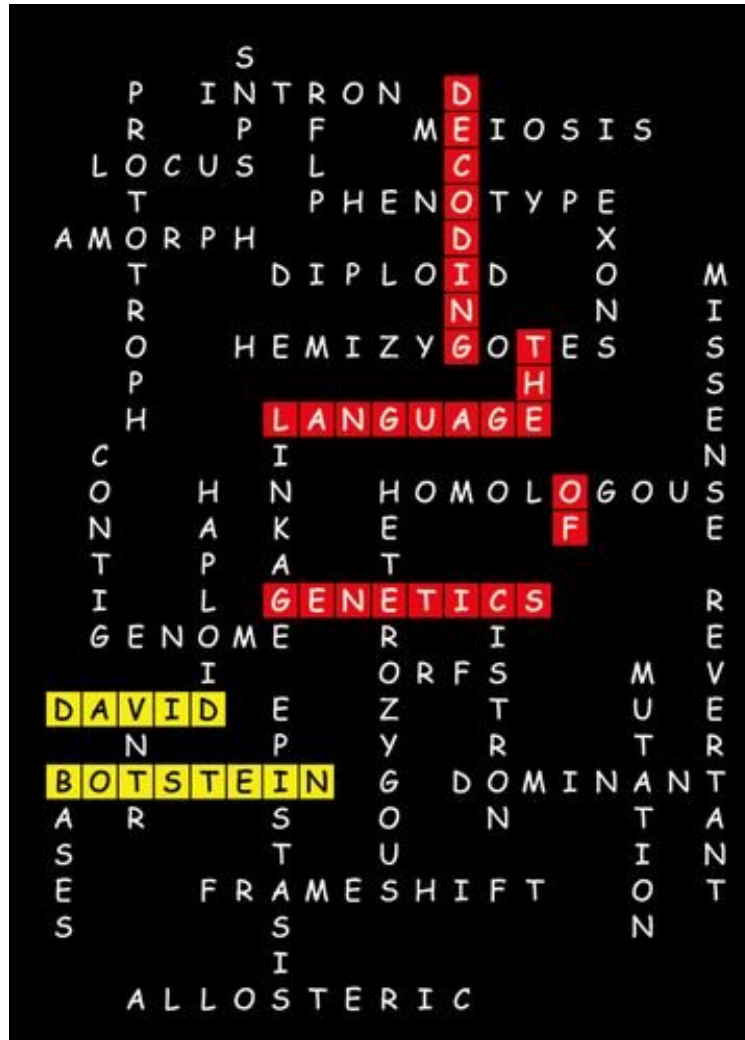


Decoding the Language of Genetics

David Botstein

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#1410204 in Books 2015-08-31Original language:EnglishPDF # 1 6.80 x .80 x 9.301, .0 #File Name: 1621820920240 pages | File size: 29.Mb

David Botstein : Decoding the Language of Genetics before purchasing it in order to gage whether or not it would be worth my time, and all praised Decoding the Language of Genetics:

2 of 2 people found the following review helpful. Five StarsBy UCLA - Hematology-OncologyWonderful book.4 of 4 people found the following review helpful. My favorite aspect of the book is the emphasis on principles ...By Nikolai SlavovRegardless of their expertise in genetics, readers will find thoughtful insights in "Decoding the Language of Genetics". The book assumes very little background in genetics and provides all essential information for understanding key concepts. This makes genetic insights accessible even to readers with weak biology backgrounds, albeit such readers may find sections of the book rather dense. The book is equally valuable for geneticists since they will find discerning perspectives on the major experimental and intellectual threads that weave our modern

understanding of genetics. My favorite aspect of the book is the emphasis on principles over particulars; readers can learn and understand how general trends were abstracted from classical model systems. Nowadays, the focus on such abstraction and synthesis of knowledge seems to be washed away by the deluge of massive high-throughput datasets. Yet, precisely because of this data deluge, such abstraction is more essential than ever. The readers of "Decoding the Language of Genetics" will find many masterful examples of distilling the essential knowledge in the spirit of the best scientific tradition. The book is beautifully written, and this makes reading it a treat.

In this book, the distinguished geneticist David Botstein offers help and advice to scientists and physicians daunted by the arcane technical terms that flourish in his discipline. The science of gene function has a vocabulary of specialized, sometimes confusing terms to explain how traits and diseases are inherited, how genes are organized and regulated in the genome, and how the genetic code is read and translated by cells. These terms are often a barrier to full understanding of the underlying concepts. Yet, as more and more individuals learn about their genomes, the information these sequences contain cannot be understood or explained without reference to the basic ideas of genetics. Botstein draws on his long experience as a teacher and pioneering scientist to explain and illuminate what many genetic terms mean and how they entered common usage.

"David Botstein is a legendary teacher, as well as an outstanding scientist. Decoding the Language of Genetics presents his insightful, very personal dissection of the major advances that have led to modern genetics and genomics. Carefully explaining the critical roles of research on model organisms, he guides the reader to the exciting future of human genomics. Included are lively descriptions of his many scientific heroes--from Gregor Mendel to Seymour Benzer and Nancy Wexler." - Bruce Alberts, President Emeritus, U.S. National Academy of Sciences (1993-2005)

"Genetics researchers try to understand the molecular mechanisms central to life by studying an organism's phenotype. The language that describes their approaches is familiar to the geneticist but often incomprehensible to everyone else. Master geneticist David Botstein has written a book that makes all this clear, explaining both the beauty of the logic involved and the language that has to be understood. Read this book, be inspired by the power of genetics, understand your genetical colleagues, and be overwhelmed no more." - Paul Nurse, Chief Executive and Director of the Francis Crick Institute

"Genome sequences allow us to peer back into our ancestry and assist doctors in tailoring treatments for whatever ails us. But how are those not trained in genetics supposed to understand how genomes work? David Botstein, a world-class geneticist and a passionate teacher, combines these talents to offer a comprehensive primer on genetics. It's a scholarly work, but written with such clarity that it provides a Rosetta stone for those who want to translate the arcane language of genetic analysis." - Thomas Cech, Distinguished Professor, University of Colorado Boulder and Investigator, Howard Hughes Medical Institute

About the Author David Botstein is an American biologist serving as the Chief Scientific Officer of Calico. He served as the director of the Lewis-Sigler Institute for Integrative Genomics at Princeton University from 2003-2013, where he remains an Anthony B. Evnin Professor of Genomics.