

BOOK REVIEW

Genetics for beginners, teaching the basics

Introducing Genetics – 2nd Edition
Edited by: Alison Thomas
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Introducing Genetics pleasantly surprises, not just by the pretty cover, but even more so by the thorough yet concise description of the basic principles in genetics. Alison Thomas has succeeded in writing a basic textbook for teaching genetics to all students for whom the topic is new. In contrast to more extensive (and therefore generally expensive) books on genetics, *Introducing Genetics* is relatively thin (~250 pages only). Yet it comprises all basic genetic principles from Mendelian monogenetic inheritance to the basis of quantitative and population genetics.

With clear examples and exercises, the reader is taken through the material. All terms and jargon within the field are properly explained and introduced at the moments they become necessary for understanding. Clear drawings and pictures explain the key concepts, and extensive tables listing the different combinations of possible offspring are useful to let the student intuitively grasp the logic behind the different odds for each genotype. All in all, for the basic concepts (i.e. monogenetic, digenic and sex-based inheritance, linkage analysis, the basics of copy number variations and Hardy–Weinberg equilibrium) this is a very good, to-the-point text book.

While the basics are covered very thoroughly, more advanced and recent genetic and genomic advances are lacking, probably with an eye on conciseness. The chapter on population genetics does not advance beyond the Hardy–Weinberg equilibrium and no mention is made of powerful recent techniques such as whole-genome association analysis and quantitative trait mapping. The chapter on DNA manipulation is very summary indeed. Vector cloning, PCR and sequencing are touched upon, however, again modern techniques (e.g. array genotyping, next generation sequencing) are completely lacking.

Depending on your needs as a teacher and the student population, *Introducing Genetics* can be a very good tool and reference for a starting course in genetics. If the aim is to familiarize the class with genetic thinking and the primary concepts of genetics (genes, alleles, inheritance, chromosomes and linkage analysis), this is a very good and affordable book. However, if the needs of your class go further or if you want to offer the students insights into the exciting world of modern genetic analysis techniques Alison Thomas' book will be too concise.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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