



BOOK REVIEWS

A Dictionary of Genetics. By Robert C. King and William D. Stansfield. Fourth Edition published 1990 by Oxford University Press, New York. ISBN: 0-19-506370-8. No. of pages: 408. SSDI No.: 0960-0760(93)E0055-C.

Genetics is the most rapidly advancing of the life sciences, and no other field has stimulated so many diverse disciplines in both the natural and social sciences. The fact that genetics has attracted mathematicians, physicists, chemists, physicians, anthropologists, and other scientists of diverse backgrounds to contribute to its development, is one of the chief reasons for its prodigious growth. Such growth is, of course, accompanied by a proliferation in terminology which constitutes a problem both to beginning students and to scientists from other disciplines who read papers by geneticists.

Geneticists use many words and abbreviations that are not found in collegiate dictionaries or dictionaries of biology. This is so because various terms, especially from molecular genetics, are newly coined; other, like those used in quantitative genetics are from other sciences, such as statistics, geology, medicine, and physics. Thus, to be truly useful, a dictionary for students of genetics needs to define not only words like 'balanced lethal system', 'crossing over', 'mutation', and 'operon', but also terms and abbreviations such as 'chi-square test', 'continental drift', 'retinoblastoma', and 'rep.'. This dictionary is therefore broader than its name implies, since it attempts to define both strictly genetic words, as well as a variety of non-genetic terms that are often encountered in the genetics literature.

This book would be useful for molecular biologists, geneticists, biologists, and biophysicists, as well as for advanced students.

Encyclopedic Dictionary of Genetics. By R. C. King and W. D. Stansfield. Published 1990 by VCH, Weinheim, Germany. ISBN: 3-527-26726-3. No. of pages: 810. Includes German Term Equivalents and Extensive German/English Index. SSDI No.: 0960-0760(93)E0056-D.

Anyone who has tried to write a scientific text in German will appreciate what a problem this can be. The specialist literature is mostly in English and it is often very difficult to find the German equivalent of the expressions used there. This is especially true in the rapidly developing fields of genetics and molecular biology, and the fact that most new terms are first defined in English has led to total confusion in the few German textbooks available on these subjects. New German words have been invented in an attempt to translate the terms more or less correctly, or in the English expression has been used—often uncritically. The jargon used in laboratories is a combination of colloquial German and specialist English—a mixture which often causes difficulties even for those familiar with it. Translating a text or writing a dissertation can therefore cause many problems, and this dictionary hopes to alleviate these. A wide selection of English specialist terms are included, defined in English and followed by the German equivalent, completed by German–English work lists at the end of the book. It is assumed that the reader is familiar with colloquial English as only the specialist terms are defined, and an exact translation was not deemed necessary in all cases but, rather, the German expression most often used to describe the relevant English term is given. New words have been created in some cases, while in others it was deemed more useful to retain the English expression or to admit that there is no exact equivalent.

This dictionary contains over 6000 definitions from classical and molecular genetics and would be very useful for people working in genetics, molecular biology, biology, and biophysics.

Genethics. The Clash Between the New Genetics and Human Values. By David Suzuki and Peter Knudtson. Revised edition published 1990 by Harvard University Press, Cambridge, MA. ISBN: 0-674-34566-5. No. of pages: 372. Price at 1990: \$12.95. SSDI No.: 0960-0760(93)E0057-E.

This book is an exploration of the clash between modern genetics and human values. Designed to be accessible to non-scientists, it is both an introduction to the underlying biological principles of the new genetics and a search for unifying ethical themes that can help individuals navigate through the uncharted, often treacherous waters of genetics and morals. The title itself is novel, "recombinant" word that splices the words "genetics" and "ethics" together to capture their conceptual inseparability. It represents a search for broad, lasting moral guidelines—gleaned from complex, real-life ethical issues in genetics—that are at once imaginative, humane and scientifically sound.

The following chapters are included:

- the legacy of genes;
- dance of the genes;
- the dances of the chromosomes;
- the Darwinian dance: genes in populations;
- recombinant DNA: the new choreography;

- blaming crime on chromosomes: the mystery of the man with too many Ys;
- genetic screening in the workplace: privacy and the human genome;
- gene therapy: the “moral difference” between somatic and germ cells;
- biological weapons: a dark side of the new genetics;
- environmental damage to DNA: developing a sensitivity to the sufferings of genes;
- crossing genetic boundaries: the curious case of the crown gall bacterium;
- maize: in praise of genetic diversity;
- maps and dreams: deciphering the human genome.

This book would be useful for molecular biologists, geneticists, biologists, biophysicists, and advanced students.