

Now fully updated to reflect recent advances, this introduction provides a broad, but concise, coverage of recombinant DNA techniques. Written for advanced undergraduates, graduates and scientists who want to use this technology, emphasis is placed on the concepts underlying particular types of cloning vectors to aid understanding and to enable readers to devise suitable strategies for novel experimental situations. An introduction to the basic biochemical principles is presented first. Then PCR and cloning using *E. coli* hosts and plasmid, phage and hybrid vectors are described, followed by the generation and screening of libraries and how to modify, inactivate or express cloned sequences. Finally, genetic manipulation in a range of other organisms is discussed, including other bacteria, fungi, algae and plants, insects and mammals. A series of 'real-life' biological problems are also presented to enable readers to assess their understanding of the material and to prepare for exams.

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'Well-written introduction to recombinant DNA techniques suitable for undergraduates without any previous experience of gene cloning.'
Society for General Microbiology.

Cover illustration: Malaria parasite *Plasmodium falciparum* in human red blood cells. The parasites are expressing a GFP reporter fused to the sequence targeting acyl carrier protein to their remnant plastids, revealing the remarkably irregular size and shape of these organelles. The nuclei are stained blue with Hoechst 33342. Figure kindly provided by Dr S Sato, National Institute for Medical Research, Mill Hill, UK.

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