Biology of Disease

N. Ahmed, M. Dawson, C. Smith, E. Wood. Abingdon: Taylor & Francis, 2007: 600pp. ISBN 0-7487-7210-3. £29.99.

This book is aimed at first- and second-year biomedical science students. When you first pick up this book and peruse the pages it is immediately encouraging. The presentation and production values are very good, the diagrams and photographs look professional and it is a substantial volume, all of which suggests a worthwhile textbook. On closer examination, the organisation seems good and there is help for the student embarking on the study of biomedical science. It has a glossary of words and phrases that might be unfamiliar to a new student.

Each chapter includes a stated objective, a series of questions, including answers, case studies and margin notes. This should help the new student find their way through the subject and the book. Rather than assuming a previous level of learning, each chapter also includes some basic or background information, and again this would be helpful to the newcomer to each topic.

The book covers the causes and effects of disease – what might be called general pathology – rather than looking at each anatomical system in turn, which would be the approach of systematic pathology books. Although the book does drift into the systematic approach by having individual chapters on the immune system, endocrine glands, gastrointestinal and cardiovascular systems, these still fit well into the concept of the biology of disease.

There is one chapter that does seem slightly different in approach and that is Chapter 6 – Transfusion and Transplantation. This is less about the cause of disease and more about the treatment of disease. This chapter is also more heavily inclined towards technical aspects of laboratory work than are the other chapters. I suspect that this topic is a favourite of one or more of the authors and directly reflects the structure of their own courses.

This is a good addition to the available literature for students just beginning to study biomedical science, but would be less useful for more-experienced biomedical scientists who need a more concise update. I would have welcomed this book when I started out in the laboratory, as the books at that time were less welcoming and somewhat drier to read. I recommend this book to students and tutors as a text for any course on the biology of disease.

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Cell-Cell Interactions: Methods and Protocols.

S. P. Colgan ed. Totowa: Humana Press, 2006: 300pp. ISBN 1-58829-523-0. US\$99.50.

This book covers a wide range of techniques in a very detailed way. This is much more useful than the rather brief outlines of methodology in most research journals. Not only are the bare facts of reagent contents and outline protocols covered, but also there are hints, tips and warnings to guide the reader through the pitfalls and quirks of the methods. Certainly, anyone wanting to perfom any of the techniques covered in this book would find reading the appropriate chapter worthwhile.

The problem, however, is that the techniques are all given for a single application. The techniques may well be useful in other contexts, but knowing which could adapted to a wider group of problems is difficult as there is no over-arching review of the techniques. The individual techniques are simply collated into a single book. A broader introduction by the editorial staff would have been of great assistance. As it is, you really need to read all the chapters in order to decide which might be of use to your particular laboratory.

Individually, the chapters give some background and useful pointers to the use of the methods. Some factual oddities are included, such as in Chapter 7 on sperm-egg interactions, where I learned that a zona pellucida-free hamster egg could be fertilised by a wide range of sperm, including that from bats, dolphins and humans! Individual chapters are a little disparate in their style and approach, and slightly firmer editorial control would have been beneficial.

The range of techniques and cell types included is such that I am left wondering to whom I could recommend this book. My conclusion is that this is much more of a library book than a book for individual purchase. It would be good to consult for individual topics, but it includes too wide a range for the whole tome to be of interest to any one person. In summary, a good book but with limited appeal and a limited readership.

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