

the publisher's 'study space', other internet materials, eBooks, videos and animations). However, I cannot comment on the quality or usefulness of these as there was no online access associated with my review copy.

Nevertheless, excellent features include the use of photographs from science fiction films, where imagination and science are compared and contrasted in the captions and text; the use of 'special topics' boxes; photographs of eminent scientists alongside their findings; and 'interviews with prominent scientists'. The last two features help to give this book a more empathetic feel, which I am sure will be appreciated by many students. The use of 'thought questions' will encourage the more highly motivated student to develop their critical thinking abilities. However, how to get weaker students to use these aids to learning will remain a major challenge for most educators. I learned a few facts (e.g., *Burkholderia cepacia* has three chromosomes, *Borrelia burgdorferi* has a linear chromosome, and no Archaea are pathogenic to humans).

However, I also spotted a few errors and omissions. For example, although anammox bacteria are mentioned briefly in Chapter 14 (Metabolism and Biochemistry), they are not included in the section on the N-cycle in Chapter 22 (Wastewater Treatment), and although chemical additions such as hypochlorite for disinfection may be one form of tertiary treatment, there are also other tertiary biological treatments of interest to microbiologists, such as nitrification, denitrification, and phosphate-removal; and also a typographical error: *Zooglia* instead of *Zoogloea*.

Clearly, nothing is perfect and it is perhaps unfair to focus on topics in my areas of expertise, but finding such errors in what was a necessarily brief inspection was disappointing. Nevertheless, this addition to the range of US-authored, comprehensive microbiology textbooks that offer additional resources for students and instructors will find a keen audience among those who appreciate its unique features.

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Molecular Hematology

D. Provan, J. G. Gribben eds. Chichester: Wiley-Blackwell, 2010: 3rd edn. ISBN 978-1-4051-8231-7. 410 pp. £135.00 (Hardback).

The third edition of this excellent textbook comprises 30 chapters on the many different manifestations of molecular studies in haematology. All aspects of haematology are covered: the opening chapters deal with genetics and stem cells, followed by eight chapters on neoplasia – the leukaemias, lymphomas and other myeloid diseases. There are four chapters on anaemia, iron and haemoglobinopathy, while the pathology of malaria merits its own chapter.

Platelets and haemostasis warrant four chapters, and blood transfusion two chapters. The volume concludes with chapters on autoimmune disease, growth factors, molecular therapeutics/gene therapy, pharmacogenomics, gene expression, the history of molecular biology, and transplantation. One of my favourites is that on blood group antigens, as it brought me up to date with the functions of some of these molecules; for example, the Kidd blood group molecule is a urea transporter, while the Duffy molecule is a chemokines receptor.

Overall, there is a tendency to focus on genetics, mutations and cell surface receptors (which is not necessarily a bad thing), but some may feel a nod towards clinical haematology would help to put the technical and academic texts in focus. As in any multi-author textbook, there is a degree of duplication (e.g., Chapter 3 on stem cells and Chapter 29 on cancer stem cells). Nevertheless, each chapter is well referenced and includes full-colour photographs and part-coloured diagrams. There are also several pages of full-colour diagrams. It is certainly a beautiful reference textbook that will find a home in any laboratory. Those most likely to find use for it will be scientists preparing for IBMS, BSc and MSc qualifications.

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