

enthusiasm for this subject by the use of telling analogies will open the tyro's eyes to the key elements involved in these processes. Thus he likens the repeated and progressive folding of the featureless sheets of cells arising from the rapidly dividing ovum to origami, the Japanese art of paper folding. But this is only the beginning of the many processes that mould the shape of the embryo and ultimately of the adult organism. What gives the body its symmetry, its front and tail ends; how does one limb tell the other about its length; what defines the shape of the fingers; what determines the size of the head and the brain, the position of the eyes and other sense organs, their connections with and within the brain? And what happens when qualitative and quantitative changes interact with these processes: what is their effect on sex, growth, evolution, regeneration, ageing and the origin of cancers? Anyone who has, from time to time, asked himself these questions will not be able to put this book down until he has read it from cover to cover; those who have given but little thought to them, will be captivated by the subtlety of these processes.

Wolpert has written a book for everyone who is prepared to be enthralled by the beauty and mystery of living processes.

R. MAHLER  
*Editor*

**Oxford textbook of clinical hepatology.** Edited by Neil McIntyre, Jean-Pierre Benhamon, Johanne Bircher, Mario Rizetto and Juan Rhodes. Oxford University Press, Oxford, 1991. 1550pp. £195.00.

There are many reasons for writing a book. The most justified is to fill a gap in the existing spectrum of textbooks. At the current time we have Sherlock's *Textbook of diseases of the liver and biliary system*, Schiff's *Textbook of liver disease*, Wright's *Textbook of liver and biliary disease*, Zakim and Boyer's *Textbook of hepatology, biannual symposia of hepatitis*, and Popper and Schaffner's *Progress in liver diseases—a biannual update*. Where does the *Oxford textbook of clinical hepatology* fit in?

The 1550 pages give a comprehensive if not concise coverage of the subject. The text is easy to read and the inclusion of references with the text is a useful innovation. The failure to list all the authors is a disadvantage to those who look to this textbook as a comprehensive reference source.

I have to confess that I have not read the whole book. I have read the chapters on viral induced liver disease in detail and conclude that these are comprehensive but sadly out of date: the chapter on Non-A, Non-B hepatitis contains only two 1991 articles (in press), none from 1990 and one from 1989. In this chapter the inclusion of important references in the text is deficient: the discovery of HCV in 1989 is not present. The same is true of the chapters on hepatitis E: no 1991 references and only one 1990. The chapter

on hepatitis B vaccination is a comprehensive review but was clearly written in 1990, prior to the description of HBV escape mutants. Once again a long gestation has reduced the value of the contribution. There are no references listed at the end of this chapter. The chapter by Gerlich and Thompson is comprehensive: I found the line diagrams very useful. I found the nucleotide sequence of HBV particularly useful but I confess that I haven't checked it through yet! There are annoying errors in the HBV nomenclature (eg hbc) which should have been corrected in the editorial process.

The writers are derived world-wide. Preference has been given to those who have worked at the Royal Free Hospital in London. There are one or two notable British hepatologists who have been 'left on the reserve bench'.

The cost of £195 is more than any of the other liver books and will limit purchase by the 'hepatologist in training' and will even discourage established hepatologists.

One has to conclude that this is 'obviously the result of a lot of work' but merely gives a further choice on an already crowded bookshelf. The idea of including the references in the text is worthwhile but is very patchy in its application. This is the most costly of the range of textbooks and is already 1–2 years out of date. The book lacks uniformity of form—it looks as if it was put together rapidly 'against the clock'. The postgraduate trainee in hepatology is best reading Sherlock's textbook and the researcher, update publications such as *Progress in liver disease*. The wealthy hepatologist working in Europe may choose this book rather than Schiff or Zakim and Boyer because of its European bias.

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**A colour atlas of the brain and spinal cord.** Edited by Marjorie A. England and Jennifer Wakely. Wolfe Publishing Company, London, 1991. 228pp. £32.00.

The brain is rather unimpressive in the flesh; yet everyone—from Andreas Vesalius (who dissected it), Thomas Willis (who indoctrinated it), Rickman Godlee (who operated upon it), Godfrey Hounsfield (who imaged it) and Ronald Reagan (who named a decade after it)—has wanted to know what it looks like and how it works. The Renaissance artists laid the foundations of neuroscience by their introduction of anatomical illustration and in so doing, they simplified the learning task for subsequent generations of students. For most, the problem is how best to think about the arrangements and disarrangements that underpin order and disorder in the nervous system; this is the classic discipline of neurological localisation or functional anatomy. The Wolfe *Colour atlas of the brain and spinal cord* assumes no prior knowledge; the brain and its workings are described from front to back and top

to bottom (that is, from anterior to posterior, and rostral to caudal). An atlas of this sort depends on the impact and accuracy of its illustrations; Marjorie England and Jennifer Wakely have produced a book which imaginatively combines histological material, photographs of head sections, computerised tomographic images, and diagrams—all in colour and with excellent illumination—to explain the brain. This approach, and the quality of the illustrations, distinguishes this atlas from other texts which depict but do not explain, or describe but do not illuminate. It is a shame that the histological sections lack the clarity and impact of the other visual material, notably the coronal, sagittal and transverse head sections taken from a collection at the Middlesex Hospital Medical School. Although written for those studying medicine and nursing, it seems likely that many readers who are new to these subjects will still require a knowledgeable tutor to assist their neuroanatomical passage; those instructors will also be grateful to Drs England and Wakely for producing this Baedeker of the brain.

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**Pride and a daily marathon.** By Jonathan Cole. Duckworth, London, 1991. 220pp. £14.99.

In 1981 Ian Waterman was an apparently ordinary, healthy, single minded ambitious butcher living in Jersey, with a noticeable sense of humour. One day in May he cut his finger, as butchers often do. This time the cut became infected.

A few days later he developed diarrhoea and became increasingly unable to control or co-ordinate himself. Although his motor nerves were intact, he had no sensory feedback at all from his limbs and trunk.

He was admitted to the hospital in Jersey, where various tests showed which illnesses he had not got. The nurses had to do everything for him, which he hated. His regular nurse spoon fed him while she listened to the hospital radio, on earphones, adding to his increasing sense of isolation. At night he lay awake for hours; sometimes a young nurse came and chatted to him and her warm hands holding his comforted him.

When his mother visited she was shocked by his loss of weight; as he lay on his bed she thought he 'looked like a plant'. After a week she began to steel herself to a lifetime of looking after him and he, too, realised that, in spite of physiotherapy, he was not getting any better. After three weeks he was transferred to the Neurological Centre in Southampton. The journey was a nightmare; although he was belted in, he was unable to prevent himself flopping over when the ambulance rounded a bend.

Life in this teaching hospital kept Ian busy, but left him plenty of time to think. Nobody could explain what was wrong with him; but by now he realised that he could make some movements if he *looked* at the part

he wanted to move. He began to replace the sensory feedback he had lost with feedback from his eyes. His first ambition was to sit up. When he noticed that the top half of his torso rose from the bed as he lifted his head to look at his feet, he built on the movement, with intense concentration. Finally, he sat up. 'I just did it, I looked at myself and did it', but if he relaxed, even for a moment's satisfaction, he collapsed back on to the bed.

Five weeks later a neurologist told him he would never walk again. For a character like Ian, this was a challenge. Many months later he walked into the consulting room, expecting delighted astonishment. What he got was an invitation to sit down, and return in six months. After the verdict that walking was impossible, he was discharged home into the care of his father and mother. His mother gave up her job, converted the sitting room into his bedroom and decorated it with flowers.

Home was better than hospital, but he soon grew bored, depressed and aggressive. His mother had to do everything for him, including putting up with a torrent of abuse. She said nothing, plodded on and cried only with friends. Although totally reliant on her, Ian insisted on fighting for whatever independence he could gain. She found him 'bloody minded and arrogant', and he was—but he called it pride and it kept him going. After seven months at home, and hospital visits for physiotherapy, the consultant, impressed by his determination, arranged for him to go to the Wessex Regional Rehabilitation Centre at Odstock in Hampshire. Here he was forced to be occupied all day by enthusiastic young physiotherapists, aiming to get him back to some sort of employment. For 17 months at Odstock he was steadily encouraged by Yvonne Muir and Dr Ted Cantrell, who even persuaded him to take 'O' level English. He passed, though each letter had to be consciously made. By the time he left, there had been no neurological improvement and he still fell over if he sneezed or the light went out, but he could walk, after a fashion, he could drive a specially adapted car and he could fend for himself. He had been helped back to a life in which he earned his living, earned promotion, fell in love and married, painted his house, including the ceiling, and learnt to photograph wildlife in the nearby forest at night and on his own.

Many people had helped him, and only a few had discouraged him, mainly by not listening or understanding; but without his tremendous pride, that daily marathon of conscious control could never have succeeded.

People who have little time for reading may guess that a review tells them all they need to know about a book; but not to read Dr Jonathan Cole's account of Ian Waterman's illness is to miss the pleasure of learning how an apparently ordinary young man, in an apparently impossible situation, achieved a heroic and extraordinary success, full of medical, scientific and human interest.

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