

particularly the sheep, and their limitations by comparison with in vitro work and human ARDS, are discussed. There is an excellent review of thrombin induced injury in pulmonary embolus and good summaries of oxygen radical generation and resulting injury, as well as a chapter dealing with natural antioxidant mechanisms. Other reviews concentrate on prostaglandins, leukotrienes, and potential therapeutic agents and their modes of action. The book is well produced apart from a few typographical errors. It is well referenced and is a fine summary of a broad range of research in ARDS. Its readership is, however, probably limited to those active in the field, particularly in animal model and in vitro work, as there is little of direct relevance to the clinician in this book.

*Biologic and Bioprosthetic Valves. Proceedings of the Third International Symposium.* Eds Endre Bodnar, Magdi Yacoub. (Pp 888; \$125 in USA and \$130 elsewhere, hardback.) New York: Yorke Medical Books, 1986. ISBN 0-914316-49-4.

The elusive quest for the perfect replacement heart valve is two pronged, and directed to the development of either artificial devices or tissue valves. This book is the record of 96 papers and many hours of discussion at a symposium on tissue valves and bioprostheses. The three decades in the development of bioprostheses are admirably summarised in an invited lecture: the sixties were the decade of the "gifted amateur"; in the seventies the cottage industry was commercialised, thus making widely available the first generation of bioprostheses; in the eighties there is a new basic science endeavour, addressing the limitations of past tissue valves and producing a group of second generation valves. The early sections of the book document fully both the achievements and the limitations of the first generation of tissue valves, be they homograft, heterograft, or bovine pericardial valve. All have low, but not zero, thromboembolic potential and all have limited durability owing to primary tissue degeneration leading to valve failure, which commonly occurs 7-15 years after implantation. Subsequent sections deal with the causes and possible prevention of valve degeneration, the results of reoperation after valve failure, and the disputed need for anticoagulants to combat the low risk of thromboembolism. A section on the bioengineering and design of valves leads logically to the final section, which discusses some second generation tissue valves with a short follow up period of observation. Although this is an expensive book it must be in the libraries of cardiologists and cardiac surgical departments, and should be on the personal shelves of those actively concerned with the evaluation and treatment of cardiac valvular disease.—JDW

*The normal lung.* 2nd ed. John F Murray. (Pp 377; £19.95, hardback.) Philadelphia: WB Saunders, 1986. ISBN 0 7216 6613 2.

Although this book is in essence an unusually well written account of the anatomy and physiology of the lung designed to be readily understandable by the relative novice, it is also likely to be of interest and value to anyone with a developed interest in any aspect of pulmonary medicine. The main reason for this is the outstanding and extensive collection of illustrations which Professor Murray has assembled. Most

of these are reproduced from the original sources so that, at one level, the book functions as a gallery of classic images and ideas. In addition to the usual subdivisions of anatomy and physiology there are chapters on metabolism, defence mechanisms, and aging. The clear, uncomplicated text is well linked to the illustrations, the essential concepts are well referenced, and recent work is adequately represented. Professor Murray is equally and impressively comfortable whether writing about structure or about function and one of the strengths of the book is the cohesion which results from having both dealt with by a single author. The binding and printing are of a quality usually associated with books costing twice as much.—RALB

*Manual of Pulmonary Function Testing.* 4th ed. Gregg Ruppel. (Pp 296; £16, paperback.) Oxford: Blackwell Scientific Publications, 1986. ISBN 0 8016 4695 2.

This is the fourth edition of a book which aims not only to describe the methodology and physiological principles behind common tests of pulmonary function but also to explain the clinical significance of test results in patients with pulmonary disease. The presentation is as in previous editions, each chapter being followed by self assessment questions and a list of key references. There are new chapters on the use of computers in the pulmonary function laboratory and another covering quality control. The manual is aimed at both practising physicians and pulmonary function technicians, and in general is written lucidly. The theory and practice of standard tests of pulmonary function and basic exercise testing are dealt with adequately. While it is difficult to cover every conceivable test there are a few surprising omissions, of which perhaps the most important is lack of a section covering investigation of pulmonary function during sleep. This is despite the fact that the recognition of sleep apnoea has provided one of the major stimuli to clinical investigation of respiratory function in the past decade. Less important omissions include use of partial flow volume curves in the section on mechanics and the radioisotope krypton-81m in the section on gas distribution. The chapter on computing, though fine on theory, is a little short on the basic practical details one would like to see in a manual. The index is less than comprehensive and the vexed problem of units also deserves a mention, with traditional rather than SI units dominating the text. In conclusion, although the book is largely successful as a basic laboratory manual, it is much less effective in handling the clinical application of pulmonary function testing, for which there are better books on the market.

## Notice

### Conference on pulmonary rehabilitation and home mechanical ventilation

The International Conference on Pulmonary Rehabilitation and Home Mechanical Ventilation will be held on 2-5 March 1988 in Denver, Colorado, sponsored by the Webb-Waring Lung Institute and the American Association for Respiratory Care. Details from Louise Nett, Webb-Waring Lung Institute, 4200 East 9th Avenue, Box C321, Denver Colorado 80262, USA.