

The major elements of the conference are:

- Current legislative requirements and practice by industry (views from the USA, Switzerland, and EU member states)
- Theory and practice of in-house limit setting (examples of approaches to setting in-house stands)
- Workshops (topics covered: carcinogens, mixtures, uncertainty factors, consultation and communication with workers)
- Poster session and technical display

For further details please contact: SCI Conference Office, 14/15 Belgrave Square, London SW1X 8PS. Tel 0171-235-3681; Fax 0171-823-1698.

IOSH '95: Health and Safety Conference and Exhibition. 4-6 December 1995. The Royal Hall, Harrogate, Yorkshire.

Standards of competency and management systems are two of the issues currently dominating the health and safety profession, and the United Kingdoms leading professional health and safety organisation has assembled an impressive programme of speakers to consider these and other pertinent topics at its annual conference. Last year's conference fees have been frozen, with non-members paying only £340 + VAT for the three day event. Conference delegates will have free access to the IOSH '95 exhibition. Exhibitors include the consultants AEA Technology, fire extinguisher experts Chubb Fire, health and safety sign supplier Focal Signs, and training companies such as Osteopaths for Industry, RoSPA, Safa, the University of Portsmouth and SETA.

For further IOSH '95 details, contact the organiser, Deborah Fisher, tel: 0116 257 1399, extension 115.

BOOK REVIEWS

Book review editor: R L Maynard

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Comparative Biology of the Normal Lung (treatise on pulmonary toxicology, volume 1). Edited by RICHARD A PARENT. Price £120.00. 1992. Boca Raton: CRC Press. ISBN 0-8493-8839-2.

This comprehensive volume is the first of a planned series of four dealing with pulmonary toxicology. As a source of information on the comparative biology of the mammalian lung it is unrivalled.

The book is divided into four parts:

- I) structural and cellular diversity of the mammalian respiratory system;
- II) comparative respiratory physiology of the normal lung;
- III) comparative biochemistry of the normal lung;
- IV) comparative defence capabilities of the respiratory system.

The sections are covered in 830 large and elegantly laid out pages with electron micrographs and other illustrations of the highest quality. The authors have obviously been encouraged to be concise and the 38 short chapters (average length 20 pages, though some in section I are much shorter) are provided. The style is reminiscent of the *Handbook of Physiology* published by the American Physiological Society.

In reading selected parts of this large book, I concentrated on areas I rather fancied I knew a good deal about and also on areas of which I know I do not know enough. The second category expanded at the expense of the first during this review.

Take, for example, the chapters on morphology, edited by Crapo and Pinkerton. Here a wealth of detail is provided, much of which I have not seen collected before. Dimensions of the nasal passages in humans, monkey, dog, rats; the size of the human intrinsic laryngeal muscles laryngeal morphometry in big cats are all covered in the first chapter by Gross and Morgan. Of the chapters in this section, I particularly enjoyed the following: Tyler and Julian have dealt with the gross and sub-gross anatomy of the lung. This chapter seems to be an updated and expanded account of the same area covered by Tyler in the well known ARRD (as was) supplement on the *Comparative Biology of the Lung* published in 1983. It should be read by all those who plan inhalation toxicology studies and hope to use animal models to predict defects of xenobiotics in humans. McBride on the architecture of the tracheobronchial tree has also made an important contribution. This chapter deals with a complex and under-studied area. Studies in this field are perforce slow but results of fundamental significance are produced by careful examination of the lung casts. The discussion of asymmetry in the lung branching patterns is illuminating although more of Horsfield's work on the underlying physics of gas flow and optimal branching angles could have been included. This is a difficult field for the anatomist and an extended non-mathematical exposition of the theoretical background would have been welcomed. Mariassy in one chapter and Plopper and Hide, have contributed a valuable account of the epithelial cells of the airways. The tables of cells populations in defined parts of the airways across a handsome range of species are fascinating and show the work that has yet to be done in this area. Shishami and Evans have dealt well with the kinetics of pulmonary cells. Here again the tables of data are unusually comprehensive, although many gaps still remain to be filled in by further research.

The chapters of the section dealing with physiology present an advanced account and some readers, like this reviewer, will find the mathematical presentations rather hard going. Some 17 pages of tables of baseline data on resistance and compliance across a range of species (and strains) are provided. Of these chapters that by Porcelli on pulmonary haemodynamics is outstand-

ing both in terms of coverage and in the clear way in which many difficult concepts are presented. Details of gas exchange (again with comprehensive tables) are presented by Jones and Longworth. The authors explain facilitated diffusion by oxygen and carbon dioxide through solutions, making clear the role that this may play regarding the movement of oxygen in erythrocytes. An area usually ignored in elementary accounts is the aging of the lung. Sahebajmi has contributed an interesting chapter on this that deals with changes in mechanics and gas exchange with age. A short account of biochemical changes is also provided.

In the section dealing with biochemistry, an excellent chapter by Simon on the biochemistry of alveolar epithelial cells is included. This chapter repeats some of the work covered in the first section but goes on to discuss cell to cell adherence, secretion, antioxidants, and briefly the metabolism of xenobiotics.

The sections dealing with defence mechanisms are helpful and that on pulmonary macrophages by Valberg and Blanchard, which provides more than 500 references, is outstanding. Inevitably the chapters dealing with inflammatory mediators and immunological mechanisms will date more rapidly than those dealing with classic physiology and some aspects of morphology. The book concludes with not one but two indexes. The second is standard, but the first is an index of tables of comparative data: a valuable innovation.

There is no doubt that this is an excellent book: but who should buy it, given that it is not cheap at £120? Anybody who is professionally concerned with the biology of the lung should have access to a copy. For the inhalation toxicologist it is probably essential if only for the tables of comparative data. If the next three volumes are as good as this then the series will be a benchmark publication in inhalation toxicology.

R L MAYNARD

Epidemiology of Clinical Allergy. By M BURR. (Pp 216, price £137.50). 1993. Berlin: Karger. ISBN 3805556012.

This interesting monograph gives a useful broad view of the epidemiology of the common allergic conditions. Although it is widely accepted that allergy is genetically controlled it is now increasingly thought that environmental factors may unmask the conditions and contribute to variations in incidence, prevalence, and mortality.

The common factor through the book is that allergic conditions are getting more common. Even conditions such as atopic dermatitis has increased fourfold since 1960.

The chapter on the epidemiology of allergic rhinitis is excellent. It carefully examines the complex factors associated with increased rhinitis such as race, socioeconomic conditions, and living in urban and rural areas. The author concludes that studies on the relation between air pollution and seasonal allergic rhinitis are eagerly awaited.

The chapter on epidemiology of asthma by Michael Burr highlights the difficulties in epidemiological studies in view of a lack of operational definition of asthma. It stresses that in spite of these difficulties several epidemiological variables indicate that asthma is becoming increasingly common. The