

## LETTERS TO THE EDITOR

### Air pollution and asthma in Athens

Levels and type of atmospheric pollution are currently an issue of debate in the pathogenesis of asthma. A number of investigators including Drs Magnusen, Jörres and Nowak (September 1993;48:879-81) suggest that heavy traffic exhausts may be related to increased risk of asthmatic symptoms. According to this theory symptoms of asthma and other allergies would be expected to rise in heavily polluted urban areas.

Athens has high levels of air pollution, especially of nitric oxide. However, the results of the EC Respiratory Health Survey on 3325 subjects aged 20-44 years in Athens were among the lowest in the study (2.4% reported asthma attacks, 2.1% were receiving asthma medication, and 5.6% reported awakening by shortness of breath within the last year).<sup>1</sup> These data therefore provide no support for the association of increased incidence of asthma with air pollution. On the contrary, we believe that the indoor life style of the urban area studied, with no wall to wall carpets but small rugs which are removed in the summer, very few, if any, pets, use of electric stoves instead of gas, and traditional diet together with high temperature and dry climate for most of the year reduce the exposure to substances that could be important in the prevalence of asthma.

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<sup>1</sup> Burney PGJ, Luczynska C, Chinn S, Jarvis D. The European Community Respiratory Health Survey. *Eur Respir J* 1994;7:954-60.

**AUTHOR'S REPLY** Drs Papageorgiou and Gaga point out that indoor factors may be more relevant for the development of asthma than outdoor pollution. Of course, given the fact that both children and adults spend most of their time indoors, this is a common hypothesis which we also commented on in our paper and which is addressed in an abundant number of abstracts and a (comparably small) number of papers. Using previously submitted figures, Dr Papageorgiou obviously refers to her abstract presented at the 1994 meeting of the American Thoracic Society.<sup>1</sup> Her original abstract, however, raises the suspicion of a serious problem with the calculation since prevalences in his subgroups of male and female patients are about half the prevalences of the total population. In addition, despite the fact that Dr Papageorgiou's suggestion is in line with common thinking, we feel that a single report from one centre in Greece adds little information to the relation between indoor pollution and

atopic sensitisation which has to be studied in a dose-response fashion on a larger scale to give a clue of biological plausibility. Within the EC Respiratory Health Survey and subsequent investigation this is on the way.

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<sup>1</sup> Papageorgiou N, Gaga M, Marossis K, Kyriakou M, Avarlis P, Tsipra S, et al. Prevalence of asthma and asthma-like symptoms in Athens, Greece. *Am J Respir Crit Care Med* 1994;149:A916.

## BOOK NOTICES

**The Pulmonary Circulation and Gas Exchange.** Wiltz W Wagner Jr. and E Kenneth Weir. (Pp 424; \$75.00). New York: Futura Publishing Co, 1994. 0 87993 572 3.

To the layman science must often seem a dry and arcane subject whose practitioners describe their achievements in rather boring and formalised articles in learned journals. In practice, of course, science and the process of science involves all the same sorts of personalities, dramas, relationships, and good and bad fortune as any other branch of human intellectual and creative activity. In this book - edited by two very senior figures in the pulmonary circulatory world who met through the cardiovascular pulmonary research laboratory in Denver, the laboratory that perhaps above all others has done so much to promote studies of pulmonary circulation - Wagner and Weir have tried to show us the human side of pulmonary circulatory research over the last 40 years. They were lucky in their subject. There are relatively few laboratories and individuals involved in studies of the pulmonary circulation, they tend to know each other, their lives are interlocked, and they have often been major personalities with a very internationalist view of science. This pulmonary vascular "club" provides an ideal subject for the study of the process of science. Wagner and Weir asked each of the contributors, who number the most important names in pulmonary vascular physiology, to tell us not just what they had done, but how they had done it, what made them think of the idea, who influenced them, and how they got started. The hope was that these accounts by 21 pioneers in the field would provide an insight into science and also a model of how vigorous and creative minds, coupled with an international view and intellectual curiosity, can do so much to unravel the mysteries of natural philosophy.

Each author was asked to write about the progress in his or her own particular field.

Thus, we have West, Fishman and Lee talking about pressure flow relationships, Barer, Grover and Harris talking about high altitude effects of the pulmonary circulation, Foster, Johnstone and Piiper talking about gas exchange, Heath, Reid and Wagenvoort talking about vascular remodelling, and Reeves discussing neonatal pulmonary hypertension. The weakness of the book is the extent to which the different authors interpreted their brief. Some simply described a feature of pulmonary physiology that interested them, others described some aspects of their lives, and about half did what I think was originally intended - that is, they gave us an insider's account of the triumphs and failures, influences and activities that led them from their early ideas to the views they currently hold. The successful chapters are those such as that by Lynn Reid in which she describes her early career, contacts with important influences of her life such as George Simon (the famous Brompton radiologist), and then goes on to tell us how she came to her views about remodelling the pulmonary vasculature in primary pulmonary hypertension and hypoxia. Also entertaining is the chapter by Jack Reeves which starts, typically, with a historical quote and tells us about the long relationship with Robert Grover which led to so many new insights into high altitude physiology. Less successful are those such as the contributions of Peter Harris who gives us a day by day account of one of his early studies of cardiac function, and West who gives us a few words on his early history, including the intriguing insight that he almost failed his medical finals, but then spends the remainder of the article describing one single hypothesis - stress failure of the pulmonary capillaries. This hypothesis has been widely published and we gain no new insights here. There are many entertaining snippets in this book. It is particularly interesting for those who know the personalities involved and who have an interest in pulmonary vascular physiology, but there is even something of interest to those outside the field. Here you are hearing the voices of a series of scientists of international stature. Perhaps this book will herald others from different areas of cardiopulmonary medicine. - AJP

## NOTICE

### ATS Annual Conference

The American Thoracic Society is holding its annual International Conference on 20-24 May 1995 in Seattle, Washington, USA. For further information contact: Francine Comi, ATS, 1740 Broadway, New York 10019-4374, USA. Telephone (212) 315 8700. Fax (212) 315 6498.