

THIS volume* is the result of a gathering in April 1974 of scientists from different disciplines with a common interest in the thymus. Fifty-three contributions on various aspects of the thymus unfortunately make heavy reading and because they are all formal papers it is difficult to measure the success of the meeting in providing a forum for the exchange of ideas. Rarely does one find proceedings that do justice to the tone and atmosphere of a meeting.

Although all immunologists have believed in the importance of the thymus, most in the past have paid only lip-service to the notion that thymocytes and T cells exert their influence through soluble factors. In the last four years, however, this has changed and now everybody is chasing factors. The inevitable result has been an explosion in the literature and a proliferation of factors which reflects more the individuality of the scientists than the molecular nature of the factors themselves. To a certain extent this book provides an opportunity to compare the many different approaches of the workers in the field, but this could have been made easier by a more extensive editorial summary.

The volume is divided into six sections, by far the most readable of which are the first (the T cell story) and the last (perspectives of the role of thymus factors in immunity), which can be recommended to any reader. The filling of this sandwich comprises sections on soluble factors and T cell development, the preparation of thymic factors, their activity *in vitro* and their activity *in vivo*. The articles are generally well presented and illustrated but many of course have been superseded in the year it has taken to publish this work. This is a universal fault with conference proceedings and it is a shame that it has happened in this case because this is a very useful reference work. Although it contains much on thymic hormones, it has little to say about the functioning of immune responsiveness genes—which is a pity as this is a fascinating and rapidly expanding area.

What the volume does achieve is to highlight the lack of standardisation of thymic factors. One may hope that an attempt to achieve agreement in this area will arise out of meetings such as this. Another salutary achievement is

Role of the thymus in immunobiology

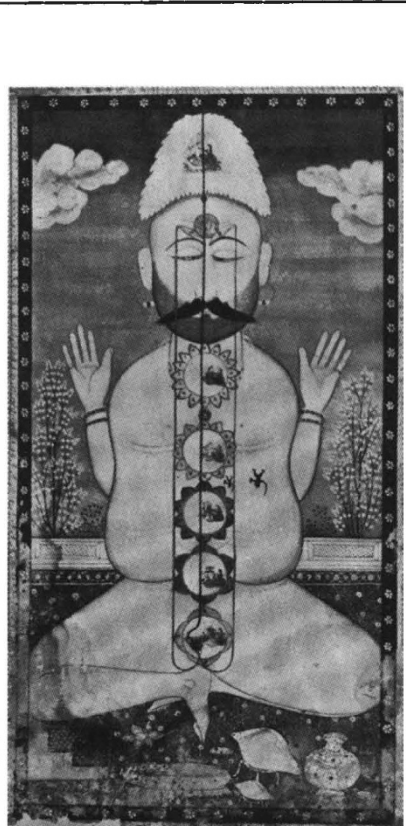


Diagram of the six cakras in the subtle body, Kangra, Himachel Pradesh. Gouache on paper, eighteenth century. "The first and fundamental image which reflects inner facts is the 'subtle body', which is shared by all Indian traditions, as well as by Indian medicine. It is experienced as that immense ramification of channels of energy which flows through the entire body." Taken from *The Body as a Medium of Expression* edited by Jonathan Benthall and Ted Polhemus. Pp. viii + 333. (Allen Lane, Penguin Books: London, May 1975.) Hardcover £7.00; paper £3.50.

in the underlying current of caution expressed in interpreting cellular function by the presence or absence of differentiation antigens on cells exposed to thymus factors.

Norman A. Staines

SINCE the discovery in 1968 of genetic athymia in 'nude' (*nu/nu*) mice, the continuing study of these animals is throwing new light on the functions of the mammalian thymus. About 200 papers have been published so far, and an analysis of the present state of the subject would obviously be very useful.

Dr Rygaard's book† does not satisfy this need adequately. It was, in fact, published in Denmark in 1973 and is now being marketed more widely, without change or addition. Unavoidably, in a fast moving field it is already out of date. Suffice it to say that the majority of research reports on the nude mouse belong to the period after the book was written. Furthermore, out of 83 papers known to me from the period up until the end of 1972, 34 are not listed in the references.

A quarter of the book is devoted to the author's own line of experimentation—demonstrating that the athymic animal accepts grafts from a variety of vertebrate species. Data of body and organ weights of nude and control mice are presented in convenient tables. Rather unexpectedly, spleen and lymph node weights were usually higher in nude mice than in normal controls. The levels of various serum proteins, including gamma globulins, were also normal. The problems raised by some of these data are pointed out but not followed up.

The coverage of other topics is rather uneven and cursory. No tables, graphs or illustrations from other workers' original reports are incorporated. Work on the production of humoral antibodies is summarised rather too briefly.

The last two chapters are based on the author's own finding that no spontaneous tumours developed in any of over 11,000 nude mice recorded. He rightly points out that the short life span of these animals permitted an average observation time of only 4 months, but proceeds to deemphasise this difficulty on grounds that are not altogether decisive. The statement, for example, that auto-antibody production is rare in nudes can be questioned. Essentially, on these bases, the author expresses doubts about the theory of immunological surveillance and declares his conversion to the ranks of agnostics in this respect.

The book is written in a lively style and is attractively produced. In spite of its limitations, it is likely to stimulate interest in the study, through the nude mouse mutation, of the thymus. E. M. Pantelouris

**Thymus Factors in Immunity*. (Annals of the New York Academy of Science, Vol. 249.) Edited by Herman Friedman. Pp. 547. (New York Academy of Sciences, February 1975.) \$39.00.

Corrigendum. In the review of *Registry of Mass Spectral Data: Volumes 1-4* (*Nature*, 257, September 4, 75, 1975), the collective price of the four volumes was incorrectly stated as £250.00. The price should have read £155.25.

†*Thymus and Self: Immunobiology of the Mouse Mutant Nude*. By Jørgen Rygaard. Pp. 193. (Wiley-Interscience: London and New York, March 1975.) £6.50.