remarkable advances which have taken place during this decade in our understanding of haemoglobin, iron metabolism, immunoglobulins and T cell receptors, oncogenes and leukaemia viruses, enzyme deficiencies, complement, phagocytosis, and haemostasis. This is a most impressive list and the chapters are uniformly good.

The initial chapter on methods of molecular genetics sets the scene. The following five chapters on all aspects of haemoglobin are excellent and the use made of the globin gene as a 'general gene' in order to introduce many of the molecular biological terms is most effective. The chapter on the thalassaemias is, perhaps, a little succinct, but this could not be said for Perutz's impressive contribution. Cellular and viral oncogenes are very well covered, as is phagocytosis. The last six chapters cover haemostasis and, in many ways, reflect the different levels that molecular biology has penetrated into the different fields. The chapter on fibrinogen is particularly good, but perhaps is more amenable to the molecular biological approach than, for example, platelets. The chapter on Haemophilia and von Willebrand's disease attempts to cover a rapidly expanding field and, within no doubt the limitations of the publisher's deadline, is very successful.

Clearly, in a book like this, there are omissions. Most are minor, but it is surprising that haemopoietic growth factors are not covered, or that the initial chapter does not cover the theory of RFLP analysis, so widely used in medical genetics.

Overall *The molecular basis of blood diseases* is a great success and will (and should) appeal to all haematologists, as well as anyone interested in molecular biology in medicine. Library copies will be in great demand and personal copies should be kept under lock and key.

IAN PEAKE

Malay Archipelago

By A R Wallace. (£27.50.) Oxford: Oxford University Press. 1987.

Why review this book in the *Journal of Medical Genetics*? To some, the choice may seem idiosyncratic, but the reissue of this 19th century classic emphasises how intimately the work of the Victorian naturalists and evolutionary biologists relates to the origin of what we now know as genetics. Wallace's contribution has, understandably, been overshadowed by that of Darwin and while this book of his travels deals only in general terms with evolutionary problems, it is important in showing us how his ideas were founded in his practical work, as well

as what kind of person he was. There is a close parallel here between *Malay Archipelago* and *Voyage of the Beagle*.

To reread the book, as I did, after an interval of decades, was pure enjoyment, as well as giving a sense of amazement as to how the hazards and privations of natural history in almost unexplored terrain were coped with so cheerfully. I only wish that the editor had been allowed a longer and more comprehensive introduction; while some readers will already be familiar with Wallace and his work, most will not. Otherwise the publisher deserves our thanks for bringing this long out of print classic back into general circulation.

PETER S HARPER

Biological Activities of Alpha₁-fetoprotein

Volume 1. Edited by Gerald J Mizejewski and Herbert I Jacobson. (Pp 262; £120.00.) Boca Raton, Florida: CRC Press. 1987.

As every medical geneticist knows, alphafetoprotein (AFP) is an extremely useful marker of fetal malformations. It was the prototype for a set of oncofetal antigens, proteins expressed mainly in fetal tissues, but also showing resurgence in adults in the presence of certain types of tumour. AFP is unusual among the oncofetal antigens in that very high concentrations (up to 3 mg/ml) are found in fetal blood at the end of the first trimester, so that for a brief period it vies with albumin for predominance among the plasma proteins.

Instinctively one feels that a protein of such quantitative importance must have an obvious physiological function. If this is the case, it has been hard to find. Controversies abound, particularly over the role of AFP as an oestrogen carrier, well established in the rat, but unlikely in man. Does it have a key function in immunosuppression in pregnancy, in the control of sexual differentiation, or in potentiating organogenesis? Can it help to describe it as a fetal analogue of albumin, or is that simply begging the questions?

This volume, the proceedings of a satellite symposium of the 7th International Congress of Endocrinology, provides few answers. Sixteen detailed and well referenced chapters bear witness to the industry and ingenuity of a distinguished panel of investigators, but the summing up makes it clear that no hypothesis on the function of AFP is yet in the ascendant. The book is well edited and expensively produced and will probably find a place in the libraries of the better funded research