Other, vital, facts are simply missing. There is no real discussion of population genetics. One looks in vain to see real figures for just how prevalent in the population such genes might be today and therefore just what fast breeders the sad, mad, bad, and the stupid might have to be in order to trigger the explosion of the gene bomb which Dr Comings so fears. There is a scrappy two page illustration of "the results of using one of the equations that calculates the rate at which the frequency of a gene with such a selective advantage will increase over succeeding generations". The equation itself is not given, nor is there any discussion of what factors might limit the spread of the gene.

In 1938, the late great J B S Haldane showed in his little book *Heredity and Politics* that eugenic programmes in the USA in the 1920s and 1930s for sterilising "mental defectives" would have had a negligible effect on the average IQ of the population. Dr Comings presents no figures on how many of the sad, mad, bad, and stupid would have to refrain from reproduction (voluntarily) before the streets of Harlem or inner city Los Angeles would once again be safe for decent, educated people to walk down.

With errors and omissions of fact go astonishing assumptions about moral and ethical values. Dr Comings tells us that "our IQ is like the core of our essence". Really? A Christian might say that the foundation of our being is our relationship to a loving God, whereas a modern secular philosopher might make "membership of the moral community" the defining characteristic of humanity. Neither of these characteristics necessarily correlates with IQ and the kingdom of heaven certainly is not a paradise of the intellectual. The point here is not who is right or wrong but that Dr Comings' initial assumption is dubious, and so much of what follows is also dubious.

The fundamental problem is that we have all been here before, many times. In the 1920s and 1930s the concern in the USA was not inner city Blacks and Hispanics but the white rural poor. Statistics put forward then by geneticists at least as respectable as Dr Comings, and with better worked out population genetics, showed irrefutably that the rural poor were significantly stupider and more fecund than the urban middle classes. But, strange to relate, the USA did not decline into a rural slum populated by village idiots. Instead, it became the world's most technologically advanced nation while the children and the grandchildren of the white trash of the 1920s turned into very capable electronic engineers and rocket scientists enabling NASA to put the first man on the moon. Now that's what I call a reality check.

TOM WILKIE

Fragile X Syndrome: Diagnosis, Treatment and Research. Editors R J Hagerman, A Cronister. (£20.00 pb, £58.50 hb.) Baltimore: Johns Hopkins University Press. 1996. ISBN 0-8018-5388-5 (pb).

The first edition of this book appeared in 1991 and is now completely out of date so that a second edition is most welcome. It was only in 1991 that the identification of the dynamic mutation responsible for the fragile X syndrome occurred. All the new information which that generated has allowed many of the authors' chapters to be written with much more precision. The chapter by

Ted Brown on the molecular aspects of the fragile X syndrome includes valuable data on CCG repeat numbers and discussions of linkage have disappeared. The epidemiology section by Stephanie Shearman is immediately clearer now we can define premutations and "normal male" transmissions. Similarly the excellent chapter by Amy Cronister on genetic counselling issues is no longer clouded by being unable to identify either normal transmitting males or having to cope with the uncertainty of not being accurately able to identify carrier females. The speculative chapter on X inactivation and imprinting has given place to a chapter by Ben Oostra on the latest information on FMR-1 protein and the behavioural characteristics of knock-out mice, which includes showing hyperactivity and learning difficulties. The cytogenetic chapter remains but still includes some old fashioned guidelines for X chromosome preparation and analysis without suggesting that counts showing a low frequency of fragile X should be clarified by Southern blot analysis. It also lacks any discussion of the necessity of continuing to use cytogenetics for analysis of the proband rather than moving immediately to molecular testing because of the high frequency of identification of other chromosomal abnormalities in that population. The flow might have been improved by a combined chapter on prenatal diagnosis which is covered separately in the molecular chapter, the cytogenetic chapter, and the genetic counselling chapter, but a clear picture does not emerge to guide the reader. If there is a deficiency, it is that there is no discussion of screening in different target populations; that may also reflect this reviewer's bias.

The book is divided into two halves. The first half is on diagnosis and research and the second half on treatment and intervention. In the second half there is a chapter on molecular approaches to therapy which is, of course, still all in the area of research and perhaps is too early to include it in a book of this type. The second half contains interesting articles on pharmacotherapy, the management of behavioural problems, and educational information. These approaches are most interesting to read but not so universally applicable in different countries. They are useful, however, as reference material when these sorts of questions are raised in a genetic setting.

This book should sit on the library shelves of clinical geneticists. It is the equivalent to the Harper on Huntington's disease or the Emery on Duchenne muscular dystrophy, well written, well referenced, and should become well thumbed.

GILLIAN TURNER

Genetics in Anesthesiology. Guy Weinberg. (Pp 200; £56.50.) UK: Butterworth-Heinemann. 1996. ISBN 0-7506-9479-3.

This book is written for clinicians and aims to blend principles and methods of molecular genetics with pertinent clinical material of relevance to the anaesthetist. The book highlights the relevance of genetics to anaesthesia and the author aims "to remedy the lack of familiarity with genetics and molecular biology among anaesthesiologist colleagues".

The book is divided into two parts. Part I is divided into four sections. Section I provides a succinct introduction to clinical genetics, section II focuses on basic concepts

in molecular biology/molecular genetics, section III describes strategies for perioperative examination of a patient with hereditary disease, and section IV addresses the increasing contribution of genetics to anaesthesia research. Part 2 is a clinical benchmarks section and covers 25 genetic diseases of relevance to anaesthetists.

In the book the common ground of genetics and anaesthesia is explored. The author points out that "professional currency demands practitioners become familiar with the basic terminology and technology of molecular biology". This book goes some way towards meeting that demand. However, given the broadness and diversity of material covered in this book, the depth of coverage on each topic is limited. Nonetheless, the book serves as a good introductory reference text that shows the common ground between genetics and anaesthesia. It also serves as a good introductory text for anaesthetists wishing to familiarise themselves with molecular medicine and its significance in anaesthesia. Overall, the book is written in an exceptionally readable style and manages to summarise the major key concepts in an interesting and concise fashion. It keeps focused on the point and does not burden the reader with minor issues.

One of the aims of the author is to bring the reader to the level necessary for understanding scientific papers with a molecular genetic basis. This is not achieved in this book and a more advanced text in molecular genetics is required.

The book falls down on some topics. In particular, section II which focuses on basic concepts in molecular biology/molecular genetics is too brief and somewhat outdated. In an era when molecular genetic research is making significant contributions in anaesthesia, the coverage of linkage analysis, association studies, molecular markers, positional cloning, and mutation detection approaches is poor or absent. Diagrams and illustrations are also lacking in this section.

The coverage on the molecular genetics of malignant hyperthermia, probably the main genetic disorder of relevance to the anaesthetist, is also disappointing and significantly out of date. Malignant hyperthermia is a major concern for anaesthetists and significant advances have been made on the genetics of this pharmacogenetic disorder and related issues concerning genetic diagnosis. The author is somewhat out of date on current knowledge on this disorder and seems to have ignored key substantiated European malignant hyperthermia genetic research from several groups while favouring some of the more speculative North American views. Diagnosis of malignant hyperthermia susceptibility by the in vitro contracture test, a major issue in malignant hyperthermia management, is poorly addressed. Also, the current situation and future prospects concerning genetic diagnosis of malignant hyperthermia susceptibility is poorly covered.

The second half of this book covers 25 genetic disorders that the anaesthetist is likely to encounter on an infrequent basis. Even though each of these disorders will be encountered infrequently, they are nevertheless of major relevance to any anaesthetist. Each disorder is dealt with succinctly under five headings: general introduction, genetics and pathogenesis, clinical features, anaesthetic management, and general bibliographical references. The examples are chosen to illustrate concepts in molecular genet-

ics and to teach principles of anaesthetic management. Each section combines updated information relating to the genetics of each disorder with practical clinical advice. The molecular genetic basis of each syndrome is concisely and well presented; the reader is brought up to date on the key molecular genetic details in a clear, readable, and well explained manner. The combination of the genetic aspects with the pathogenesis and anaesthetic management for each disorder make this a very useful reference text at the teaching level. This book is also a very useful reference text for practical guidance in the anaesthetic management of these disorders. However, given the extent of the material covered in this book, there is not sufficient room to explore the key issues in detail. Thus, this is essentially an exceptionally well written introductory molecular genetic/genetic disorder reference text that will be very useful to the anaesthesiologist for guidance at both the practical and teaching levels.

TOMMIE McCARTHY
MARY LEHANE

NOTICES

British Human Genetics Conference

The British Human Genetics Conference will be held on 15-17 September 1997 at the University of York, England. There will be

special sessions on: Reproductive genetics; Insurance and genetics; Cardiac genetics; DNA repair disorders, as well as plenary sessions. The Carter Lecture will be given by Professor Mark W J Ferguson on "Cleft Palate: Developmental Mechanisms, Prevention and Novel Therapies". For further information contact Professor Peter Farndon, Clinical Genetics Unit, Birmingham Women's Hospital, Edgbaston, Birmingham B15 2TG, UK. Tel/fax: 0121 627 2634. email: bshg@bham.ac.uk

The Third International Workshop on Resistance to Thyroid Hormone

The Third International Workshop on Resistance to Thyroid Hormone (RTH) will take place on 12-13 October 1997 at The Given Institute and The Mountain Chalet in Aspen, Colorado, USA before the 1997 Annual Meeting of the American Thyroid Association in Colorado Springs. The Workshop will focus on clinical and basic aspects of RTH, mechanism of thyroid hormone action, and animal models of RTH with brief presentations with ample time for informal discussion and posters. Particular emphasis will be placed on participation by successful young investigators, junior faculty, and minorities. Land transportation from Aspen to Colorado Springs will be available on the morning of Tuesday 14 October. For information, contact The Third International Workshop on Thyroid Hormone Replacement, C/o Dr Samuel Refetoff, The University of Chicago (MC3090), 5841 South

Maryland Avenue, Chicago, IL 60637, USA. Tel: (773) 702-6939. Fax: (773) 702-6940.

4th International Symposium on Brain Dysfunction—Neurogenetic Disease: From Molecule to Patient + International Prize for Brain Dysfunction Research

This Symposium will take place on 24-26 September 1997 in Troina, Sicily (Italy) and is sponsored by the Oasi Institute for Research on Mental Retardation and Brain Aging. The Oasi Institute invites the submission of original, unpublished research papers to compete for the 1997 award on the following subject: Neurogenetic Disease: From Molecule to Patient. For further details contact the Organising Secretariat, Mrs H Cerro, 4th International Symposium on Brain Dysfunction, Oasi Institute for Research on Mental Retardation and Brain Aging, I-94018 Troina, Italy. Tel: +39-935-93611. Fax: +39-935-653327. email: hcerro@oasi.en.it

Congress of Molecular Medicine

The Congress of Molecular Medicine, organised by Springer-Verlag Berlin/Heidelberg, will take place on 3-5 May 1997 at the International Congress Centre, Berlin, Germany. For further details contact Sabine Schaub, Springer-Verlag, Public Relations Department. Tel: 030/82787-282. Fax: 030/82787-707.