
The tidal wave of Arab conquest westward, that surged out of the Arabian peninsula into Egypt in the seventh century and then right to the shores of the Atlantic, engulfed many different peoples. It imposed on them, to varying degrees, a common culture based on Islam and a common language. The proselytising invaders themselves were far from being a homogeneous group for they were joined by many of the people with whom they came into contact. Today the legacy of that conquest is the Arab world, a vast block of territory comprising 21 countries, home to some 240 million people. The genetic diseases that have been reported among them form the subject of this book.

It is the cultural features of this area that make it of especial genetic interest. First, attitudes are pronatalist, sibships tend to be large, and recessive disorders tend to be more visible than in a western society. The small family size of the latter was adduced by McKusick as the explanation for the excess of dominant disorders over recessive in his catalogue of Mendelian diseases in man, the converse of the situation in the mouse. Secondly, the Arab marriage patterns favour consanguineous unions of certain types; some of the highest frequencies of these occur among Arab peoples, so that again recessive disorders become manifest. It is no surprise therefore that of the 115 single gene syndromes (listed pp 160-188) first reported among Arabs, 100 were autosomal recessive and 10 dominant. Thirdly, the large number of populations embraced in the conquest meant that the present gene pool is highly heterogeneous, incorporating samples from the many distinct gene pools that had previously differentiated to some extent, so that an enhanced number of variant mutations may be present. The Arab populations thus provide a genetic gold mine, as it were, awaiting exploitation. This book shows how successful that exploitation has been so far.

After Teebi's introduction, the three chapters in part I provide the background. The first gives a demographic skeleton, a listing of numerical facts for the 21 countries, mainly in tables. They show the differences that there are among countries, but the overall impression is of rapid population growth, high fertility, poor maternal mortality, low age at marriage, and widespread illiteracy, especially among women. These tables would have given a better perspective if they had included data from a western country for comparison. The next chapter on the health profile shows the health inequalities that there are among the Arab countries, attributed to differences in resources and attitudes. Despite the wealth of some, it paints a bleak picture of the high prevalence of malnutrition and tuberculosis, the widespread poor sanitation and unsafe water supplies, and there is an excellent discussion of this profile by Al-Qudsi. The final introductory chapter is devoted to the marriage pattern, attitudes to consanguineous unions, and their perceived and actual consequences.

Part II discusses genetic disease entities common among Arabs. The first contribution to the enormous amount of publications on the thalassaeamias came from Egypt in 1944, and this and the many other haemoglobinopathies are the subject of one chapter, followed by one on familial paroxysmal polyneuropatis (familial Mediterranean fever). The diseases in both these chapters pose considerable clinical and public health burdens in several Arab countries. Neuromuscular disorders, the subject of the next chapter, are less common, though some of them occur at increased frequencies among Arabs. Special interest attaches to the severe childhood autosomal recessive muscular dystrophy which clinically resembles Duchenne dystrophy. It can be distinguished in timing and pattern of progression from the recessive cases that have been reported in Europe. However, data on female antecedents in Arab pedigrees tend to be limited, and in some of the early reports of autosomal recessive cases (for example, Kloepfer and Talley, 1957) the affected females were clearly inbred and could have been homozygous for the X-linked Duchenne gene. Today the two forms can be distinguished by linkage and molecular characteristics.

In part III there are seven chapters on particular countries, Egypt, Iraq, Jordan/ Palestine, Lebanon, north west Africa, Sudan, and the United Arab Emirates. Some countries are not included because their principal problems form the predominant part of other chapters, others because of scarcity of genetic information, but cases from them are referred to elsewhere in the book. Isolated or semi-isolated groups are discussed in part IV. For the Bedouin, instead of a comprehensive listing Farag and Teebi concentrate on some conspicuous features, for example, the clustering of some chromosome aberrations and the high incidence of Bardet-Biedl and Meckel syndromes. The Nubian chapter stands apart from the rest of the book for it compares skull and dental dimensions and morphology in the ancient population of Nubia (AD 200-1500) with those of the present inhabitants at the time of the construction of the Aswan High Dam (1960) and there is little mention of genetic pathology. Adam and Bonne-Tamir consider the genetic diseases observed in the Jews who migrated to Israel from Arab countries, as well as in the Samaritan and Karaita isolates; this chapter brings out the varying frequencies among them, illustrating the relative genetic isolation in past times of those Jewish communities from each other and from their respective Arab host populations.

In part V on cultural and religious attitudes towards genetics, the first chapter concerns Islamic views on reproductive issues and particularly as they are affected by modern techniques of intervention. This leads naturally to the final chapter on genetic counselling, its philosophy and practice in Arab settings, where the extended family tolerates and shelters its members with genetic disorders and where the religious explanations of disease alleviate the parental feelings of guilt, so often seen in western families. The chapter ends with a call for the formulation of an acceptable preventive programme to reduce the hazards of genetic problems among Arab communities. This book reflects the great advance made in modern medicine in Arab countries in the last few decades, the professional expertise that has been accumulated there, and shows the extent of their contribution to clinical genetics. Most of the newly discovered disorders have been reported from areas with advanced diagnostic services, so there will be more to come as facilities extend to the remainder. The book is well produced (though the copy editors have let a few minor errors slip through) and the case illustrations though not plates are sufficiently informative. Apart from its intrinsic academic interest it is bound to be useful to physicians and medical students in the Arab countries, but will also be valuable for reference for those clinicians in Britain and Europe who see patients from the Arab world, not only for the details of the diseases it contains but particularly to help them anticipate and understand the likely responses to courses of action they may consider.

D.F. ROBERTS
has no place in science". I found the prologue of this book, a short history of cytogenetics by Lacadena, and the epilogue, which gives Moen's personal views on the Chromosome Conference(s), most readable. Here you will certainly find some citations and bon mots for lectures and chromosome courses.

The various sections of this book deal with chromosome organisation, chromosome stability, control mechanisms, meiosis, and evolutionary dynamics. In general, the articles are of high scientific quality. However, their length and format are quite different. Some chapters, for example on "Y-linked genes and spermatogenesis in primates" by Schmeeck and on "gametic imprinting at the mouse and human IGF2R/MRP300 locus" by Smrzka and Barlow, are quite brief and read like short reports. Other chapters give more background information. In this regard, I found the chapters on "the relationship between gene density and chromosome banding patterns in mammalian nuclei" by Craig and on "the replication of ribosomal RNA genes in eukaryotes" by Lopez-Estraño et al. to be excellent. Peter Cook describes a minimalism chromosome model which does not involve solenoids and helical coiling. Instead transcription factories are thought to be the precursors of mitotic chromosome bands. Since by this time this book has come out, most of the original data presented have already been published elsewhere, I prefer these review-like and sometimes unconventional papers.

A book on chromosomes should be interesting for a wide variety of cytomologists and this conference report certainly is. It impressively shows that molecular biology has been incorporated into cytogenetics, and yet that classical cytogenetic techniques still play an important role. It is not unexpected that the various chapters describe the chromosomes of widely different species ranging from plants to Drosophila and other insects, as well as of mammals, primates, and humans. The very concise papers on "retrotransposons at Drosophila telomeres and terminal chromosome deficiencies" by Biessmann et al. and on "proteins controlling sister-chromatid cohesion" by Orr-Weaver et al teach us why the fly is still a highly valuable model organism. What seems to me to be somewhat neglected is yeast, an organism for which cytogeneticians and zoologists are beginning to be established. A few paragraphs of Scherthan's paper on "chromosome behaviour in earliest meiotic prophase" give at least some insight into the power of yeast cytogenetics. Overall the topics range from the esoteric, for example, on "chromosome differentiation using nucleases" by Gosalvez et al. and on "evolution of a near-neat B chromosome" by Camacho et al. to the highly practical. (By necessity, this categorisation is highly biased.) For the human geneticist, the latter category includes good chapters on "subchromosomal painting libraries from somatic cell hybrids" by Rocchi et al. on an "interspecific microinjection model for the study of induced chromosome aberrations in human male germ cells" by Egozue et al. and on the "characterisation of amplified DNA sequences in human cancers" by Muleris et al. Perhaps even more impressive are the two articles on "chromosome painting in wheat" by Vega et al. and on "new insights into chromosome evolution in plants from molecular cytogenetics" by Leitch et al. which elucidate the immense agricultural value of the new cytogenetics.

In summary, this book is a very valuable source of information for chromosome researchers or, more generally speaking, for people who love chromosomes. It is part of a larger and well known series of conference reports which should be found on the shelves of every genetic institute. Since not all chromosomologists can afford to attend the International Chromosome Conference, a premier event in our field, as many as possible should get a chance to browse through this book. It is both informative and amusing.

THOMAS HAAF


For a book to reach its sixth edition in 15 years in the competitive field of molecular genetics textbooks, it has to be good. Though lecturers and tutors may put specific textbooks on reading lists, in my experience the students have their own "word of mouth" ranking for these general texts. It is easy to see why Lewin still attracts the buyers. The text is clearly written, comprehensive, and, most importantly, exciting. Some aspects of molecular genetics are inherently interesting, for example, what switches a gene on and off in differentiated cells of the body. Other topics are more difficult to present in a way that keeps the imagination alert, but Lewin succeeds admirably. The text of Genes VI has been rearranged and updated as the subject has evolved. This edition is divided into seven main parts, covering DNA; genes to proteins; prokaryotic gene expression; perpetuation of DNA; eukaryotic genomes; eukaryotic gene expression; and a final section on cell growth, cancer, and development. Each section is packed full of information, making this an extremely useful reference book as well as a teaching textbook. In fact, my only criticisms of Genes VI are presentational: the rather stark colour scheme of figures gets rather tiring after a while and the weight of the book, which approximates the Yellow Pages for a medium sized city in England, is not really suitable for the rather flimsy softback version. The production team needs to consider this for future editions, or maybe these will only be available on CD-ROM.

ANN HARRIS

NOTICES

Medical Editors Trial Amnesty

A large number of internal journals have joined in a Medical Editors Trial Amnesty to encourage those who have controlled trial data, which have not been fully published, to bring such data into the public arena. This is an important effort to minimise publication bias. It is relatively unlikely that this journal will be the most suitable for such publications but should there be any unreported trials that are suitable for the Journal of Medical Genetics, the editors would be pleased to consider them. More comprehensive details will be publicised in editorials in other clinical journals.

Genetic Aspects of Autoimmune Diseases

A conference for scientists and representatives of patients' organisations on "Genetic Aspects of Autoimmune Diseases" will be held on 7-10 May 1998 at Noordwijk, The Netherlands. For further information contact Mrs E M Kalsbeek, WOCZ, PO Box 8450, 3503 RL Utrecht, The Netherlands. Tel: +31 30 2966400, fax: +31 30 2970020, e-mail: conference@wocz.spin.nl

Enzymes, Receptors, and Drugs in Obesity and Atherosclerosis

An international symposium on "Enzymes, Receptors, and Drugs in Obesity and Atherosclerosis" will be held on 7-9 May 1998 at the University of Toronto, Toronto, Ontario, Canada. For further information contact Dr H V Marke, Department of Laboratories, Centenary Health Centre, 2867 Ellesmere Road, Scarborough, Ontario, Canada M1E 4B9. Tel (416) 281-7251, fax: (416) 265-8781, e-mail: HVM@myra.com Web site: http://www.clinitox.com/erdoa/

Correction

In the August 1997 issue of the Journal, in the review of the book Genetic Disorders Among Arab Populations on page 704, the price of the book should have been $98.50 and not $498.50.