Geography of Human Genes, which detailed our collective knowledge about the distribution of traditional serogenetic variation within a holistic anthropological framework, and the appearance of *Human Evolutionary Genetics*. This new compendium emphasizes the enormous explosion in knowledge derived from human haploid systems and molecular genetic markers, and, as such, it is a most worthy successor. It should quickly become *the* book to consult for genetic information pertinent to the evolution of our species. To the authors, I offer both a sincere thank you and a hearty congratulations for a job well done!

STEPHEN L. ZEGURA

Anthropology Department
The University of Arizona
Tucson

0002-9297/2005/7606-0016$15.00

Am. J. Hum. Genet. 76:1, 2005

Facioscapulohumeral Muscular Dystrophy: Clinical Medicine and Molecular Cell Biology. Edited by Meena Upadhyaya and David N. Cooper. New York: BIOS Scientific Publishers, 2004. Pp. 250. $149 hardcover.

Facioscapulohumeral muscular dystrophy (FSHD) is a fascinating disorder from both clinical and molecular standpoints. The molecular basis of FSHD is still being debated and refined, 15 years after it was localized by linkage to chromosome 4q and 13 years after the causative genetic rearrangement was identified. This book presents a comprehensive compendium of the state of knowledge about all aspects of FSHD as of approximately 2003, with chapters written by clinicians and investigators who have been intimately involved in contributing to this knowledge base.

For those interested in clinical aspects of FSHD, there are three chapters that discuss the typical and unusual clinical features of the disease and one devoted to the retinal changes seen in some patients. Genetic counseling for FSHD, which is often complex, is discussed in detail by two different clinicians in separate chapters, and a third chapter (on genotype-phenotype correlation) covers many of the same issues. These chapters address interpretation of genetic test results, clinical anticipation (which is suggested in some families but is not uniformly agreed on), and the effect of sex on disease severity. An additional chapter covers genetic mosaicism in FSHD. Clinicians who are interpreting reports of DNA testing for FSHD will also find the chapter entitled "Molecular Diagnosis of FSHD" extremely helpful. Finally, there is a brief chapter reviewing clinical management.

Most of the remainder of the book is devoted to the unfolding story of the molecular basis of this disorder, beginning with linkage analysis and identification of the subtelomeric deletion that is the basis of the clinical diagnostic test. Subsequent chapters present proposed mechanisms of disease, identification of candidate genes, and genomic analysis of the deletion. The evidence for a genetic derepression model of pathogenesis is detailed, along with gene expression profiling that suggests an alternative model.

This book is an ideal resource for someone who wishes to have an in-depth understanding of FSHD. This includes genetic counselors or clinicians who deal with many FSHD families, as well as researchers who are considering entering this field. The book conveys the current state of understanding, as well as the remaining questions to be answered and conflicts to be resolved.

KATHERINE D. MATHEWS

Division of Child Neurology
Department of Pediatrics
University of Iowa Carver College of Medicine
Iowa City

0002-9297/2005/7606-0017$15.00