Book Reviews

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Genetics of Developmental Disabilities. Edited by Merlin G. Butler and F. John Meaney. Boca Raton, FL: Taylor and Francis, 2005. Pp. 886. $199.95 hardcover.

Genetics of Developmental Disabilities is a collection of reviews of common developmental disorders. It is written for all those interested in understanding the causes and pathogenesis of these disorders as well as those involved in the care of affected patients. Written as a textbook, it contains three main sections. The first section covers the basic principles of medical genetics. Three chapters are particularly instructive—namely, the chapters on the history of mental retardation, the impact of the Human Genome Project on our understanding of developmental disorders, and the value of animal models for understanding these disorders.

The second part of the book describes classic examples of conditions involving developmental disability. It forms the core of this well-designed book. The chapters on fragile X syndrome, sex-chromosome anomalies, Angelman syndrome, velocardiofacial syndrome, Smith-Magenis syndrome, Rett syndrome, and phenylketonuria are outstanding.

The last section of the book covers other related topics, such as neuropsychiatric and behavioral aspects of developmental disabilities and cerebral palsy. Of particular interest is the chapter on genetic epidemiology of developmental disabilities. It contains an excellent review of the genetic aspects of autism. A useful glossary ends this well-written book.

Overall, in editing this multiauthored book, Merlin G. Butler and F. John Meaney have succeeded in providing an updated source of knowledge for those involved in teaching the practice of medical genetics to medical and graduate students. As such, it is also an important resource for all health care professionals involved in the testing, care, and treatment of patients with developmental disabilities. It is a natural complement to available textbooks that are more directed toward describing the basic principles of medical genetics.

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Genetic Disorders and the Fetus: Diagnosis, Prevention and Treatment. 5th ed. Edited by Aubrey Milunsky. Baltimore: The Johns Hopkins University Press, 2004. Pp. 1,224. $225 hardcover.

Reinforce your bookshelf and make room in your library for the fifth edition of Milunsky's classic tome *Genetic Disorders and the Fetus*. You will need a weight-lifting regimen to haul this 1,224-page book to your clinic, but it will be worth the effort. Milunsky draws on his own years of experience, along with those of his 56 coauthors, to provide the reader with a comprehensive review—from prenatal population screening through third trimester screening and management—supported by extensive references. Topics run the gamut from the "how-tos" of amniocentesis, chorionic villus sampling (CVS), and selective abortion to prenatal diagnosis for specific genetic disorders and issues of population screening (i.e., maternal serum screening), ending with an appropriate discussion of ethical issues and medicolegal aspects of prenatal diagnosis.

Although the average clinician may not read this book cover to cover, I would like to see some of the introductory chapters placed earlier in the book. For example, the chapter by Prior et al., "Molecular Genetics and Prenatal Diagnosis," should be one of the first chapters because many of the prior chapters on prenatal genetic diagnosis made through CVS and amniocentesis refer to many of the molecular techniques covered in this chapter, some of which may be foreign to the nongenetics reader. I would like to see the chapters on common syndromes, like cystic fibrosis, and on prenatal diagnosis of hemoglobinopathies precede the chapters on rarer conditions, such as disorders of amino acid or lipid metabolism.

I applaud Milunsky for making the first chapter be about genetic counseling, whereas many other books seem to relegate this important topic to the back of the book, as almost an afterthought. I would like this chapter to remain more general on the topic of genetic counseling, instead of going into detailed recommendations for certain disorders (e.g., there is an extensive section on pregnancy care for women with Marfan syndrome). This chapter should rely more heavily on references to other chapters. Although Milunsky acknowledges that there is a lack of referrals to medical geneticists and genetic counselors, there is no citation of resources for finding such professionals, such as the ResourceLink of the National Society

of Genetic Counselors (http://www.nsgc.org/) or the clinic directory at GeneTests (http://www.genetests.org/). I hope future editions will include references from more current basic literature on genetic counseling, including the classic reference books *A Guide to Genetic Counseling*, by D. Baker et al. (1999), and *Psychological Genetic Counseling*, by J. Weil (2000). The chapter on genetic counseling would also benefit from an expanded discussion/list of the many genetic support groups that are so valuable to the couples and families who are affected by genetic disorders, such as the Genetic Alliance (http://www.geneticalliance.org/). In this chapter, Milunsky briefly addresses the evaluation of a fetus whose parents are consanguineous but does not address at all the issues involved in genetic evaluation of a fetus in the case of incest. I hope that the next edition will include the recommendations from the National Society of Genetic Counselors on this subject (National Guideline Clearinghouse 002499 at http://www.nsgc.gov/) instead of the current suggestion of opting "for the entire gamut of prenatal tests" (p. 32).

This book requires a certain level of sophistication in genetics. It might be useful to add a section on basic patterns of inheritance, as well as a section on how to obtain a family history using standardized pedigree symbols.

I was surprised to find that this edition lacks a chapter on HIV infection and the fetus—there is only a brief mention of mother-to-fetus HIV transmission during amniocentesis. The next edition would benefit from having a chapter specific to teratogen counseling. I would like to see a more extensive review of genetic disorders that pregnancy may aggravate and maternal genetic disorders that may threaten fetal health and survival. Given that newborn hearing screening has been initiated in the United States, this too deserves more attention in a future edition. Many health professionals will find this book a valuable resource, but it should be particularly so for medical geneticists and genetic counselors, cytogeneticists, molecular geneticists, obstetricians/gynecologists, perinatologists, and midwives.

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