Prenatal Diagnosis in Obstetric Practice. Edited by M. J. WHITTLE and J. M. CONNOR. Oxford: Blackwell Scientific Publications Ltd. 1989. 274 pages. £29.50. ISBN 0 632 01945 X.

Prenatal diagnosis began in the early 1950s when obstetricians showed that amniotic fluid could be safely removed in the second and third trimesters of pregnancy, and Rh-isoimmunization of the fetus detected by analysis of bile pigments. The discovery in 1965 that amniotic fluid cells were of fetal rather than maternal origin initiated an era of genetic analysis, first for chromosome disorders and then for an increasing range of inborn errors of metabolism. Prenatal diagnosis developed as a fruitful collaboration between obstetricians and medical geneticists. The former devised increasingly refined techniques for acquiring fetal tissues; safer amniocentesis, transcervical and transabdominal chorionic villus biopsy, and ultrasound-guided fetal tissue biopsy. Geneticists played their part by bringing the whole range of recombinant DNA technology to bear on the diagnosis of Mendelian disorders.

To some extent this balance has been upset by the new range of non-invasive physical methods of diagnosing fetal anomalies. The most powerful of these is high-resolution ultrasonar scan. Here the obstetrician works alone, his detecting system the VDU screen and his skills those of pattern recognition and accumulated experience in resolving the subtle features which might signal a fetal malformation. It is not an exact science nor yet a quantitative one, but it is of considerable importance in providing mothers with the opportunity to avoid the birth of a severely affected child.

Understandably, a book devoted to prenatal diagnosis in obstetric practice places strong emphasis on the achievements of ultrasound screening. There are separate chapters on the detection of malformations of the central nervous system, the gastrointestinal tract, the cardiovascular system and the renal tract, with excellent pictures and tables of incidences, associated abnormalities and empiric recurrence risks. Surprisingly, there is no discussion of either the principles or the technology of ultrasound. Other chapters, primarily orientated to the obstetrician, deal with fetal infections, exposure to teratogens, management of fetal anomaly, fetal pathology and prenatal therapy.

However, the obstetrician involved in prenatal diagnosis needs more than good ultrasound pictures. He must have detailed knowledge of cytogenetic methods for the diagnosis of chromosomal aberrations and of biochemical and DNA-based techniques for detecting both Mendelian and multifactorial abnormalities. The editors have approached this by compiling a series of appendices, which set out various fetal conditions and the techniques (ultrasound, biochemical, DNA or other) which may be used to diagnose them. Such lists are valuable to obstetricians who in the course of a working day may be confronted by a couple seeking prenatal diagnosis for a variety of rarely-seen conditions. But they need to be compiled, indexed and cross-referenced with skill and care if they are not to confuse. Cystic fibrosis, for example, is correctly listed as diagnosable by both biochemical and DNA methods, but there is a cross-reference to ultrasound which is not realised. Nor is there any guidance to the obstetrician as to which of the two techniques is preferable. I could find no mention of acetylcholinesterase in the entire book. This is one of two biochemical tests (the other being alphafetoprotein) which is now applied to virtually every amniotic fluid, whatever the indication for amniocentesis.

The first book on prenatal diagnosis to be published in the UK (A. E. H. Emery, *Antenatal Diagnosis of Genetic Disease*, Churchill Livingstone, 1973) was an edited volume from a group of contributors based in Edinburgh. This text is an edited volume from a group of contributors based in Glasgow. For several years Edinburgh buses have carried an advertisement saying 'Glasgows miles better'. Citizens of Scotland's capital city thought that they knew what this meant, and some even managed to join the acclamation which greeted the award to Glasgow of 'European City of Culture, 1990'. In this spirit the reviewer, an Edinburgh geneticist who contributed to Emery's 1973 volume, welcomes Whittle and Connor's book which though flawed in parts, is an important and novel contribution to the literature of prenatal diagnosis.

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Behavioral Genetics – a Primer, 2nd edn., by R. PLOMIN. J. C. DEFRIES and G. E. MCCLEARN. Oxford, England. W. H. Freeman. 1990. 455 pages. Hard cover. £25.95. ISBN 0 7167 2056 6.

This well written and interesting book is both ambitious and timely. It is ambitious because, in 14 chapters, it attempts to cover so much ground. It aims to introduce students to the analysis of behavioural traits using the techniques of quantitative genetics, and assumes that they have little or no previous knowledge of either Mendelian or molecular genetics. Thus five of the first seven chapters are devoted to Mendelism, chromosomes and molecular genetics including recombinant DNA technology. The coverage here is necessarily brief but the central theme of the book is adhered to by the use of examples which are not the usual ones for introductory texts. Waltzer, twirler and susceptibility to audiogenic seizures are three examples used to illustrate Mendelian genetics in mice; drop dead and wings-up are just two mutant types used to analyse behaviour and fate mapping in *Drosophila*. This should make the introductory