retinoblastoma gene. It is aimed particularly at those who are working in the general field of carcinogenesis. The level of the various contributions varies considerably and some could be read with interest and pleasure by those who only have a passing interest in the topic, while others are at a high technical level, not easy for the non-specialist to understand. Similarly, the reports of the discussion which are interspersed with the specific contributions are really for the specialist.

The contributors make up a galaxy of all the stars in the field, though like all stars some have been around for longer than others. Their contributions do make up a coherent whole and provide a timely overview of a topical and now rapidly advancing field.

It is a well presented little book but it is a pity that the publishers could not afford to have it bound decently.

D G HARDEN

Statistics with Confidence. Confidence Intervals and Statistical Guidelines. By M J Gardner and D G Altman. (Pp 140; £7.95.) London: BMJ. 1989.

Before the second world war the statistical content of general medical publications was minimal. Over the course of half a century there has been a dramatic change in presentation. There is now the expectation that results will be presented in statistical language, which has generally come to mean significance testing.

During the 1980s it has repeatedly been pointed out by medical statisticians that significance testing does not usually provide the ideal framework for expressing results. Many medical journals, including the *British Medical Journal* and the *Lancet*, now favour a confidence interval approach when this is appropriate.

Statistics with Confidence is a handbook rather than a textbook. It is based on a series of articles by several medical statisticians, originally published in the *British Medical Journal*. The reasons for preferring a confidence interval approach are explained thoroughly. The methods of construction of confidence intervals for the most frequently encountered situations are set out clearly and are accompanied by simple worked examples. The methods

included in the book do not necessitate the use of a computer, although many of the calculations can be performed by statistical packages such as Minitab. Furthermore, the authors have made available a program called CIA which can perform the calculations. There are also sections on statistical guidelines for authors and on check lists, and tables required for the calculations described in the book.

The book can be thoroughly recommended to a general medical readership. Medical genetics publications include straightforward descriptive and comparative material, to which the methods described in the book apply directly. However, the book would not provide a great deal of specific help to those who wish to assign confidence intervals to the parameters specific to the highly developed, specialised, statistical methodology of medical genetics. Moreover, in the genetic counselling situation, in which a proband is assigned a point estimate of his/her risk of carrying or transmitting a gene, it is not usually appropriate to give a confidence interval as well: the risk itself, a number strictly between 0 and 1, expresses the uncertainty aspect as well as the probability. Nevertheless, when advances in the understanding of human DNA at the molecular level lead to the development of potentially effective corrective treatments for inherited disorders, medical geneticists will need to evaluate these treatments in the same way that other drugs are evaluated. When this situation is reached, this little book will assume as great an importance for medical genetics as for other specialities.

R NEWCOMBE

Genetics of the Epilepsies. Edited by G Beck-Mannagetta, V E Anderson, H Doose, and D Janz. (Pp 230; DM 148.) Berlin, Heidelberg: Springer-Verlag. 1989.

This is an account of a workshop held in Berlin immediately following the 7th International Congress of Human Genetics in 1986. It includes information on the prevalence of epilepsy, the inheritance of EEG patterns, the definitions of epileptic syndromes, and accounts of genetic studies. Epilepsy as defined by 'recurrent unprovoked

seizures' has a lifetime cumulative incidence of about 4%, but there are two peaks of incidence, one before 20 years and one after 60 years. The aetiology is likely to be different for the two age groups; the epilepsy that families are concerned about is that which occurs in childhood, with an incidence in the population of about 2%. However, the useful chapter here on incidence and prevalence by Hauser and Annegers is marred by the absence of a reference list.

The debate on the genetic basis of the epileptic syndromes centres on a rather artificial distinction as to whether an autosomal dominant gene with modifiers is mainly responsible, or whether the aetiology is polygenic. EEG patterns appear to be dominantly inherited, and many are age dependent. There is a useful discussion by Greenberg *et al* on whether two genes (one dominant and the other recessive) are responsible for juvenile myoclonic epilepsy; their models can be useful for looking at other disorders. The study on the genetics of partial epilepsies was disappointing as the number of affected relatives out of the total was not given, but was instead described by the number of index patients who had a positive family history. In general, the empirical recurrence risks for sibs of index patients with most types of epilepsy lies between 4 and 8%, although a few types (such as febrile convulsions and the progressive myoclonic epilepsies) have a higher risk. A useful source for genetic risks in epilepsy is a review article by Blandfort *et al* in *Human Genetics* (1987;76:303), which is not even referred to in this book.

The four chapters on recurrence of epilepsy in the offspring of patients will be useful to clinical geneticists. Three of these studies come from clinics at Heidelberg and Berlin, where adult patients with children were enrolled in a prospective follow up between 1969 and 1982; the observations of epilepsy or EEG abnormalities or both in children have been correlated with type and onset of seizure in, and with sex of, the affected parent. The overall risk to offspring is 4 to 5%, and this is non-significantly greater for the offspring of affected females, and is also greater if the parent had generalised epilepsy, particularly if associated with absences. Useful data are being collected through these prospective studies on the occurrence of epilepsy, and any triggering