BRITISH JOURNAL OF OPHTHALMOLOGY

Editorial

Recent advances in scientific methods and techniques have produced marvellous insights into normal physiology and also into pathophysiological mechanisms of disease. Take for example, the remarkable molecular genetic studies linking resistance/susceptibility to diabetes mellitus to the presence or absence of the amino acid aspartic acid at position 57 in that region of the MHC Class I molecule which is involved in antigen presentation.[1] Or consider the explosion of knowledge in cell growth and proliferation: mitosis (and meiosis) it appears, are orchestrated by a group of proteins known as cyclins, in a very precise manner[2] and this has direct bearing not only on our understanding of neoplasia but also on potential anticancer therapeutic strategies. The development of monoclonal antibody technology has advanced well beyond immunodiagnostics and is rapidly invading clinical therapeutic practice (using methods which involve targeting specific antigens).

Ophthalmology has not been untouched by these advances. The molecular genetics of retinitis pigmentosa has identified a range of specific genetic defects in a series of photoreceptor proteins,[3] and some sophisticated research has revealed the elements of spectral tuning in cone photoreceptors by various cone opsins.[4] In the clinic, PCR (polymerase chain reaction) technology is not simply a research tool but is being applied widely to many ophthalmic (and non-ophthalmic) diagnostic problems and may prove very valuable in early diagnosis of infection. In addition, rapid advances in imaging techniques are having a direct influence on the practice of ophthalmology.

How does the ophthalmic community become informed of developments in scientific methods so as to take advantage of them? Conference proceedings and research papers are the major vehicles for dissemination of information, and the *British Journal of Ophthalmology* participates in this process. Recent changes in the editorial organisation have afforded the opportunity to facilitate this function of the journal and the proposed modifications to its content described below are aimed in this direction.

In the coming months, the journal plans to introduce a section on laboratory sciences which will reflect a growing interest in investigative ophthalmology. Accordingly, articles in this field will be welcomed, but not to the detriment of original articles in clinical ophthalmology, which will continue to provide the foundation of the journal's published material. Review articles which outline the relevance of and links between the laboratory, the experiment, and the clinic will be particularly welcomed. The emphasis on single case reports will be reduced and a new format for the case reports instituted. To balance this, a new feature will be introduced providing a brief commentary on clinical practice points.

Not all of these changes can be introduced at once and specific instructions as to the preparation of the different articles require to be formulated. These will appear in coming issues. However, these are scientifically exciting times and ophthalmology has much to give to the wider medical scientific community. We trust that our readers agree that a restatement of the original aims of the journal to cover both clinical and laboratory visual and ophthalmic sciences is timely and appropriate:

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1 Todd JA, Mijovic C, Fletcher J, Jenkins D, Bradwell AR, Barnett AH. Identification of susceptibility loci for insulin-dependent diabetes mellitus by trans-racial gene mapping. *Nature* 1989; **338**: 587–8.
2 Nurse P. Universal control mechanisms regulating onset of M-phase. *Nature* 1990; **344**: 503–8.
3 Dryja TP. Doyne Lecture: Rhodopsin and autosomal dominant retinitis pigmentosa. *Eye* 1992; **6**: 1–10.
4 Bowmaker JK, Astell S, Hunt DM, Mollon JD. Photosensitive and photostable pigments in the retinae of Old World monkeys. *J Exp Biol* 1991; **156**: 1–19.