

EDITORIAL

The Ischaemic Eye

This Symposium brought together a group of leading scientists and ophthalmologists to discuss the underlying mechanisms and effects of ischaemia on the eye.

The topics reported in this issue range through the basic changes which occur in ischaemia, its relationship to inflammation and its clinical effect on both anterior and posterior segments. Growth factors continue to be of great interest as they have been for more than 40 years since Professor Michaelson postulated an angiogenesis factor. These neovascular growth factors themselves have been the subject of a series of symposia on basic science and clinical meetings particularly related to ophthalmology and tumour angiogenesis factors and related areas have been the subject of a major research effort by Judah Folkman and distinguished colleagues in Boston for more than 20 years. As clinicians, we have long been interested in finding the 'magic bullet' in order to identify the causative angiogenic factor or the blocker or inhibitor for such angiogenesis. With more research and more observations, the likelihood seems to increase of a multifactorial system. Glaser has shown that certain cells such as the retinal pigment epithelium can produce both inhibitors and stimulators at the same time. These observations not only underscore the multifactorial nature but also emphasise the difficulty in translating experimental results from the *in vitro* setting to the clinical situation. People have much more exquisite control than tissue cultures. The complexity of the many active factors and an interactive system with feedback which will occur simultaneously seriously modify the clinical situation. Despite the tremendous effort both in terms of numbers of distinguished investigators, large research teams and a huge investment of resources over many years, the clinical application of these findings remains remote. However this should not discourage investigators in the ophthalmological and vision research community. Rather it is through these studies of fundamental importance that advances will be made. It is therefore most important that further funds are directed to this topic because the neovascular changes in diabetes are the major cause of blindness in those under 60 and our present treatment regimes are based on intuition rather than a sound scientific background.

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