

Preface

The fourth edition of *The Eye* is upon us and, in the intervening years since the third edition, much has happened in the life sciences which have a direct bearing on the basic science of the eye. For instance, the massive strides being taken by the new genetics and functional genomics based on the Human Genome Project, the new understanding of how the microbiome affects all aspects of immunology, the remarkable new imaging technology which is applied to anatomy and neurophysiology, the exciting new molecular, and other, diagnostic methodologies being used in microbiology and pathology, have collectively brought a wealth of new knowledge to students and practitioners in the fields of ophthalmology and visual science. For these reasons alone, we have felt that there is strong need to update the text and allow our continuing and new readership to view these developments as they inform the various scientific disciplines in how they affect the eye and its workings.

And so, *The Eye Fourth Edition* has been extensively revised with much new text as well as many new figures. The aim of the book, as always, has been to provide a concise text which provides as much information in the simplest and most readable format which can be used by a diverse readership. This includes optometrists and ophthalmologists in training, and in practice, as well as new recruits to visual

and ophthalmic science who are embarking on a career in the basic science of the eye. We expect readers will take from the text those aspects of knowledge and information which are directly relevant to them and hope that they will also dip into areas which might not seem so immediately important to them but remain part of the whole. As indicated in the preface to the third edition, the purpose is to produce a “basic science of the eye” handbook which is readily accessible.

The book retains its familiar overall organisation in terms of subject matter. Excitingly, however, in this internet dawn, *The Eye* is also being produced as an online text, with links to additional information as well as video clips prepared by the authors which are aimed to help explain and expand on aspects of the basic science. We hope that our new, as well as our previous, students and readers enjoy the new product.

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