

Preface

There have been two previous international symposia devoted to the cornea. The first was held in the Belgian coastal resort of Knocke in August of 1958 in connection with the XIXth International Congress of Ophthalmology (*The Transparency of the Cornea*, edited by Sir Stewart Duke-Elder and E. S. Perkins, Oxford: Blackwell, 1960). The majority of the participants were practicing ophthalmologists, and the emphasis was on problems of corneal inflammation, vascularization, degeneration, and transplantation. The second symposium was held in Washington, D.C. in 1965 and was sponsored by the World Eye Bank (*The Cornea World Congress*, edited by H. King, Washington: Butterworths, 1967). Its purpose was to consider those problems relating to corneal surgery and to the preservation and preparation of corneal tissue for subsequent corneal transplantation. The present and third symposium differs from the two earlier meetings in that its subject matter is confined to the fundamental aspects of the physiology of transparency and swelling of the cornea.

Dr. Takashi Mizukawa of the Osaka University Medical School graciously offered to host the symposium in Kyoto, Japan in 1967. His support helped to bring together those investigators who were actively engaged in fundamental aspects of corneal research before they were to attend the VIIIth International Congress of Biochemistry in Tokyo. The last ten years has seen a tremendous increase in the number of published investigations on all aspects of corneal physiology. However, as in so many fields of rapid development, significant differences in opinion had arisen from the results of the many and varied types of experiments. There was, therefore, a need to re-assess the status of our knowledge and to define those areas which required further elucidation.

The papers of the symposium have been published in an order which follows closely the order of presentation at the meeting. Their subject matter falls into three main divisions. The first group of papers deals with