

BASEMENT MEMBRANES

edited by SEIICHI SHIBATA

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Proceedings of the International Symposium on Basement Membranes held in Mishima (Japan) on June 24-26, 1985

Edited by

Seiichi Shibata



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Preface

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Studies on the chemical composition of basement membranes have made startling progress following the discovery of type IV collagen, laminin, entactin, fibronectin, and more recently, nidogen. With the characterization of these chemical substances nearing completion, interest is gradually shifting toward studies related to molecular biology and morphogenesis.

Until recently, many clinicians, including nephrologists and diabetologists who treat patients with problems involving basement membranes, have shown very little interest in the results of research into the chemistry and biology of basement membranes. Some specialists still consider basement membranes to be based only upon the concept of 'biomembranes' or 'membrane barriers'. During the last three or four years, a great deal of attention has been focused upon various diseases from the viewpoint of basement membranes. In particular, irreversible and chronic progressive diseases such as liver cirrhosis, pulmonary fibrosis, arteriosclerosis, malignant neoplasm, and chronic glomerulonephritis (contracted kidney) have been studied. As a result of this research, many new findings about the pathogenesis of these chronic progressive diseases have been reported. In my opinion, these findings are the results of investigations which applied the concept that the extracellular matrix represents the basement membrane.

Until now, this concept was sufficient to advance the study of basement membranes. However, further advances will require combining two concepts: the concept of extracellular matrix and the traditional concept of biomembrane or membrane barrier. In view of this recent progress, I thought it would be worthwhile for scientists and researchers to meet and discuss their research and its problems. We set two major goals for this symposium: firstly, to promote discussion about the 'biomembrane' or 'membrane barrier' concept versus the 'extracellular matrix' concept; and secondly, to provide a platform for discussion of recent findings and problems.

During the symposium, 41 full-length papers and 24 two-page abstracts were presented. We felt that these valuable manuscripts should be compiled into one volume. Thus, the Proceedings of the First International Symposium on Basement Membranes at Mishima were published. I hope this volume is helpful and informative for both current and future researchers in this field.

The organization of this symposium and the publication of its proceedings required a lot of hard work on the part of my colleagues. Without their help, the publication of this volume would not have been possible. In particular, I would like to thank my associates Drs. Masaaki Okada, Masanobu Kawakami, and Yasuhiro Natori for their valuable assistance in arranging this meeting. In addition, I would like to extend my sincere thanks to Dr. Ohno in Pennsylvania who, on numerous occasions, helped to facilitate communication between the U.S. and the organizer. Thanks are also due to the discussion leaders for guiding and stimulating discussion during symposium sessions.

Finally, I hope that a second International Basement Membrane Symposium will take place in the near future with equally successful results.

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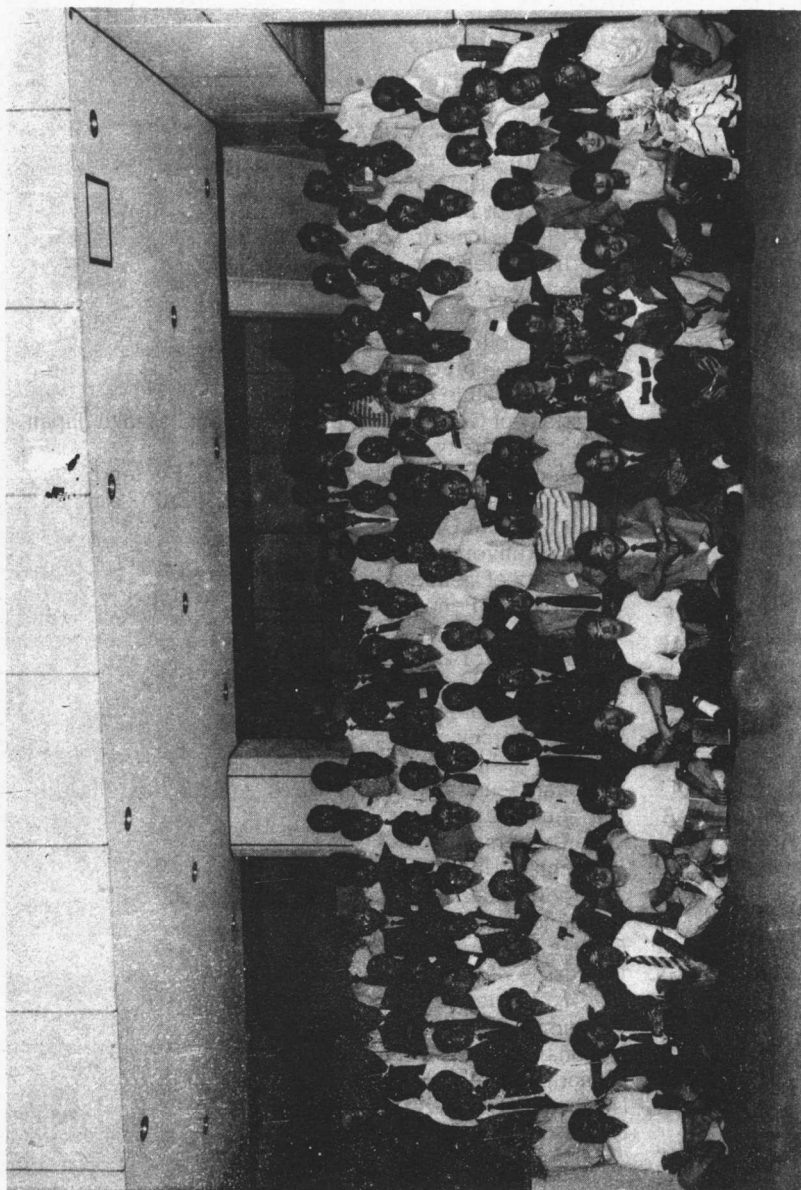
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