

Preface

Biological cell membranes regulate the transfer of matter and information between the intracellular and extracellular compartments as basic survival and maintenance functions for an organism. This volume contains a series of reviews that are concerned with how epithelial plasma membranes regulate the transport of solutes between the intracellular and extracellular compartments of a cell. This book is also an attempt to analyze the molecular basis for the movement of various solutes across an epithelial cell membrane.

This volume is devoted to a diversity of epithelial transport mechanisms in representative cell membranes of a variety of living things. The first section of the book (Chapters 1–6) focuses on mechanisms of solute transport in epithelia of invertebrates. The last section which comprises ten chapters (Chapters 7–16) deals with solute transporters in epithelial cell membranes of vertebrates. It is hoped that with this particular ordering the reader can glean a telescopic view of the evolutionary history of the various epithelial solute transporters.

Although this book is designed to bring together a large body of literature dealing with different types of epithelial transport processes in cellular membranes and is aimed at the researcher, I hope this volume will be a valuable contribution to senior-level studies in membrane biology as well as clinical research. As editor, I wish to thank my friends and colleagues who have kindly contributed chapters to this volume. I also wish to thank Humana Press, who assumed the task of producing this volume, and my secretary, Ms. Robyn Edwards, and our department's computer specialist, Kevin Fortin, for their skillful help in various phases of manuscript preparation, and also my wife, Alison, and my sons, Rob and Jeff, whose witty humor and kindness helped so much in lightening the editorial burdens.

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most distinguished, accomplished men. I would also like to personally thank my father for the love, trust, pride, and confidence that he had for me; otherwise my accomplishments, including this book, would be significantly less.

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