

# Contents

---

<b>Contributors</b>	ix
<b>Foreword</b>	xiii
<b>Chapter 1</b> Cell Biology of Photoreceptors and the RPE: A Brief Introduction <i>David S. Williams</i>	1
<b>Chapter 2</b> Crumbs-Dependent Epithelial Organization in Retinal Morphogenesis and Disease <i>Donald F. Ready and Ulrich Tepass</i>	7
<b>Chapter 3</b> From the Golgi to the Rod Outer Segment: Formation, Movement, Docking and Fusion of Rhodopsin Transport Carriers <i>Dusanka Deretic</i>	29
<b>Chapter 4</b> Insights on Retinal Degeneration: Molecular Basis of Polarized Rhodopsin Transport <i>Ching-Hwa Sung and Jen-Zen Chuang</i>	65

<b>Chapter 5</b>	Targeting of Visual Pigments to Rod Outer Segment in Rhodopsin Knockout Mice <i>Guang Shi, Francis A. Concepcion and Jeannie Chen</i>	93
<b>Chapter 6</b>	Photoreceptors and Intraflagellar Transport <i>Sheila A. Baker, Gregory J. Pazour, George B. Witman and Joseph C. Besharse</i>	109
<b>Chapter 7</b>	Myosin III in Photoreceptors: What Does It Do? <i>Andréa Dosé, Jennifer Lin-Jones and Beth Burnside</i>	133
<b>Chapter 8</b>	Light-Dependent Translocation of Signaling Proteins in Vertebrate and Invertebrate Photoreceptors <i>Katherine J. Strissel, Maxim Sokolov and Vadim Y. Arshavsky</i>	163
<b>Chapter 9</b>	Centrins, Potential Regulators of Transducin Translocation in Photoreceptor Cells <i>Andreas Gießl, Philipp Trojan, Alexander Pulvermüller and Uwe Wolfrum</i>	195
<b>Chapter 10</b>	The RP1 Gene and Protein in Photoreceptor Biology <i>Sara Achenbach, Qin Liu and Eric A. Pierce</i>	223
<b>Chapter 11</b>	Molecular Organization of Rod Outer Segments <i>Robert S. Molday</i>	259
<b>Chapter 12</b>	Biochemistry and Cell Biology of the Visual Cycle <i>John C. Saari</i>	301

<b>Chapter 13</b>	Role of Mertk in RPE Phagocytosis and Retinal Disease <i>Douglas Vollrath and Wei Feng</i>	351
<b>Chapter 14</b>	Roles of Integrin Receptors in the Daily Phagocytosis of Photoreceptor Outer Segment Fragments by the RPE <i>Emeline F. Nandrot and Silvia C. Finnemann</i>	371
<b>Chapter 15</b>	Myosin VIIa in the Retina <i>David S. Williams and Daniel Gibbs</i>	397
<b>Index</b>		437