Preface

Adrenergic receptors (ARs) are expressed in almost all organs and tissues and regulate a large number of diverse physiological processes upon activation by epinephrine and norepinephrine. There are three families of ARs, α_1, α_2, and β-ARs, with distinct pharmacological properties and functions. Since the first identification of βARs more than three decades ago, research on ARs has led to the establishment of many fundamental concepts in G protein-coupled receptor (GPCR) pharmacology. In addition, appreciation of AR functions in the physiology of various systems and in the pathophysiology of many disease states has established these receptors as viable drug targets and resulted in the identification and development of a number of effective therapeutics. This volume of CTM is not intended to cover all aspects of AR biology, but rather focuses on the most recent findings, in a historic context, pertaining to AR activation, signaling, trafficking, and in vivo functions.

It has been a great privilege and genuine pleasure to work closely with the many AR experts who are dedicated to providing a state-of-the-art review of the recent advances in this active research field. I am particularly grateful to my formal mentor, Dr. Lee Limbird, for giving me advice on effectively managing such a significant project. I am also indebted to the Elsevier editorial staff, whose hard work has made publication of this volume smooth and efficient.

I want to specifically thank the Series Editor, Dr. Dale Benos, for his invitation to me to serve as editor and his helpful guidance in the development of this volume on AR biology. Unfortunately, Dr. Benos passed away during preparation of this work. His untimely passing is definitely a huge loss to the membrane biology field. In memory of his leadership, his many contributions to the field, and his devoted service to this journal series, I would like to dedicate this volume to him.

Qin Wang