
Preface

The previous edition of *Transmembrane Signaling Protocols* was published in 1998. Since then the human genome has been completely sequenced and new methods have been developed for the use of microarrays and proteomics to analyze global changes in gene expression and protein profiles. These advances have increased our ability to understand transmembrane signaling processes in much greater detail. They have also simultaneously enhanced our ability to determine the role of a large number of newly identified molecules in signaling events. In addition, novel video microscopy methods have been developed to image transmembrane signaling events in live cells in real time.

In view of these major advances, it is time to update the previous edition. Because of the success of that volume, we have chosen to keep the essential character of the book intact. Introductory chapters from experts have been included to provide overall perspective and an overview of recent advances in signal transduction pathways. The individual chapters now include comprehensive detailed methods, studies in genetically tractable systems, fluorescence microscopy in live single cells, ex vivo analysis of primary cells from transgenic mice, as well as genomic and proteomic approaches to the analysis of transmembrane signaling events.

We would like to express our deep gratitude to the coauthors of this publication. We hope that *Transmembrane Signaling Protocols, Second Edition* will serve as a valuable resource for future progress in the study of signal transduction pathways.

Hydar Ali
Bodduluri Haribabu