Methods in ENZYMOLOGY

Volume 520

G Protein Coupled Receptors

Structure

Edited by

P. Michael Conn

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METHODS IN ENZYMOLOGY

G Protein Coupled Receptors

Structure

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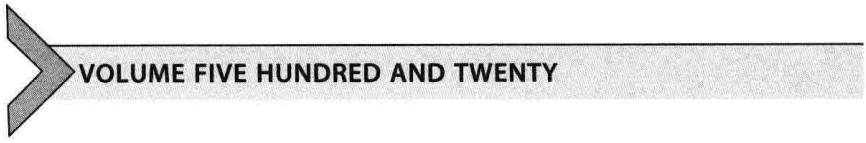

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PREFACE

G protein-coupled receptors (GPCRs) constitute the largest family of validated drug targets; mutations in GPCRs are the underlying cause of more than 30 diseases. These plasma membrane proteins are utilized by cells to mediate responses to sensory stimuli, hormones, and neurotransmitters. Some estimates are that as much at 4% of the human genome may be reserved for GPCRs; this is testimony to the large number of uses to which nature has put these interesting and highly interactive molecules.

Understanding the relation between receptor structure and function frequently explains the underlying pathology of disease and presents therapeutic and prophylactic opportunities. Accordingly, this volume provides descriptions of the range of methods used to analyze these important signal transducers and the authors explain how these methods are able to provide important biological insights.

Authors were selected based on research contributions in the area about which they have written and based on their ability to describe their methodological contribution in a clear and reproducible way. They have been encouraged to make use of graphics and comparisons to other methods, and to provide tricks and approaches not revealed in prior publications that make it possible to adapt methods to other systems.

The editor wants to express appreciation to the contributors for providing their contributions in a timely fashion, to the senior editors for guidance, and to the staff at Academic Press for helpful input.

P. Michael Conn
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