**Springer**1st  
edition1st ed. 2019, X, 197 p. 45  
illus., 33 illus. in color.**Printed book**

Hardcover

**Printed book**

Hardcover

ISBN 978-3-030-04277-6

\$ 179,99

Available

**Discount group**

Professional Books (2)

**Product category**

Contributed volume

**Series**Advances in Experimental Medicine and  
Biology

Life Sciences : Proteomics

Rosenhouse-Dantsker, Avia, Bukiya, Anna N. (Eds.), University of Illinois, Chicago, IL, USA

# Cholesterol Modulation of Protein Function

## Sterol Specificity and Indirect Mechanisms

- **Very timely topic as cholesterol, increasingly, has been implicated as a major regulator of protein function**
- **Contributors are well-known experts in their fields and provide international perspective**
- **Research will be invaluable across several areas from biochemistry to nutrition**

In this book, renowned scientists describe the role of steroid chirality and modification of lipid membrane physical properties in the modulation of G protein-coupled receptors and ion channels. The application of commonly-used technical approaches such as mass spectrometry and nuclear magnetic resonance transfer spectroscopy for studies on cholesterol distribution and alteration of lipid bilayer characteristics is also discussed. This book offers comprehensive insights into the current understanding of cholesterol-driven modulation of protein function via mechanisms that extend beyond lipid-protein direct interactions. In the first part, the chapters introduce the reader to the use of the chemical derivatives of cholesterol as a valuable laboratory tool in the studies of cholesterol-driven modulation of protein function. In the second part, examples of cholesterol-induced changes in membrane physical characteristics are presented and discussed in light of their multifaceted contribution to the effect of cholesterol on protein function. The book will be of interest to undergraduate and graduate students as well as basic science and medical researchers with a keen interest in the biophysical properties of cholesterol and physiological consequences of cholesterol presence in biological systems.

**Order online at [springer.com/booksellers](https://www.springer.com/booksellers)****Springer Nature Customer Service Center LLC**

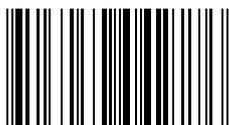
233 Spring Street

New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

[customerservice@springernature.com](mailto:customerservice@springernature.com)

ISBN 978-3-030-04277-6 / BIC: PSBC / SPRINGER NATURE: SCL1403X

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**