

# Methods in ENZYMOLGY

Volume 313

*Antisense Technology*

Part A

General Methods, Methods of Delivery,  
and RNA Studies

*Edited by*

M. Ian Phillips



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ANTISENSE TECHNOLOGY

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and RNA Studies

# METHODS IN ENZYMOLOGY

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*M. Ian Phillips*

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## Preface

Antisense technology reached a watershed year in 1998 with the FDA approval of the antisense-based therapy, Vitravene, developed by ISIS. This is the first drug based on antisense technology to enter the marketplace and makes antisense technology a reality for therapeutic applications. However, antisense technology still needs further development, and new applications need to be explored.

Contained in this Volume 313 (Part A) of *Methods in Enzymology* and its companion Volume 314 (Part B) are a wide range of methods and applications of antisense technology in current use. We set out to put together a single volume, but it became obvious that the variations in methods and the numerous applications required at least two volumes, and even these do not, by any means, cover the entire field. Nevertheless, the articles included represent the work of active research groups in industry and academia who have developed their own methods and techniques. This volume, Part A: General Methods, Methods of Delivery, and RNA Studies, includes several methods of antisense design and construction, general methods of delivery, and antisense used in RNA studies. In Part B: Applications, chapters cover methods in which antisense is designed to target membrane receptors and antisense application in the neurosciences, as well as in nonneuronal tissues. The therapeutic applications of antisense technology, the latest area of new interest, complete the volume.

Although *Methods in Enzymology* is designed to emphasize methods, rather than achievements, I congratulate all the authors on their achievements that have led them to make their methods available. In compiling and editing these two volumes I could not have made much progress without the excellent secretarial services of Ms. Gayle Butters of the University of Florida, Department of Physiology.

M. IAN PHILLIPS

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