Methods in Enzymology Volume 112

Drug and Enzyme Targeting

Part A

EDITED BY

Kenneth J. Widder

Ralph Green

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Preface

Rapid growth and increasing interest in the science of targeting biologically active agents to specific and desired sites of action have resulted in a proliferation of scientific meetings and journals devoted to this topic. The concept of drug targeting technology offers a rational selective method for treating various diseases, including cancer, infectious diseases, and enzyme deficiencies in animals and man. Because drug and enzyme targeting is a relatively new field, the scientists who have made major contributions to its growth have come from diverse backgrounds. Drug delivery technology brings together contributors from a broad spectrum of scientific disciplines, including pharmacology, biochemistry, enzymology, organic chemistry, biophysics, lipid chemistry, physiology, anatomy, and pathology.

In Drug and Enzyme Targeting we have attempted a comprehensive coverage of the different methods that have been developed in the drug delivery field. Our aim is to provide scientists interested in this field with a complete compendium of detailed techniques. This volume (Part A) deals with microspheres, polymer systems, and drug conjugates. For the sake of completeness, we have included a contribution on infusion pumps, a significant advance in sustained medical therapeutics. Part B will deal

with liposomes, receptor-mediated targeting, and cell carriers.

We wish to thank our editorial advisory board, Drs. Ernest Beutler, Roscoe Brady, Gregory Gregoriadis, Robert Langer, and Anthony Sinkula, for their assistance. We would also like to thank the very capable staff of Academic Press for their efficiency, professionalism, and cooperation in the production of these volumes.

KENNETH J. WIDDER RALPH GREEN

METHODS IN ENZYMOLOGY

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