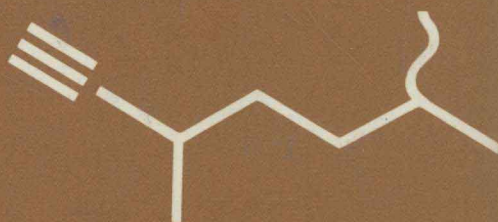
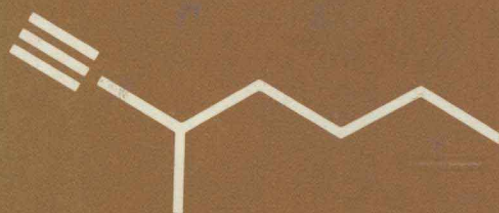


# Molecular Basis of Drug Action

Editors:

Thomas P. Singer and Raul N. Ondarza

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Developments in Biochemistry

Volume 19

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# MOLECULAR BASIS OF DRUG ACTION

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Proceedings of the International Symposium on  
Molecular Basis of Drug Action held in  
Querétaro, Mexico, October 13-16, 1980

*Editors:*

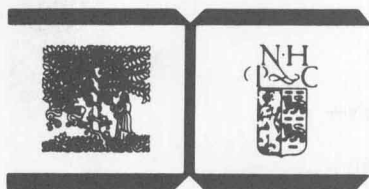
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ELSEVIER/NORTH-HOLLAND  
NEW YORK • AMSTERDAM • OXFORD

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Published by:

Elsevier North Holland, Inc.  
52 Vanderbilt Avenue, New York, New York 10017

Sole distributors outside USA and Canada:

Elsevier Science Publishers B.V.  
B.O. Box 211  
1000AE Amsterdam, The Netherlands

Library of Congress Cataloging in Publication Data:

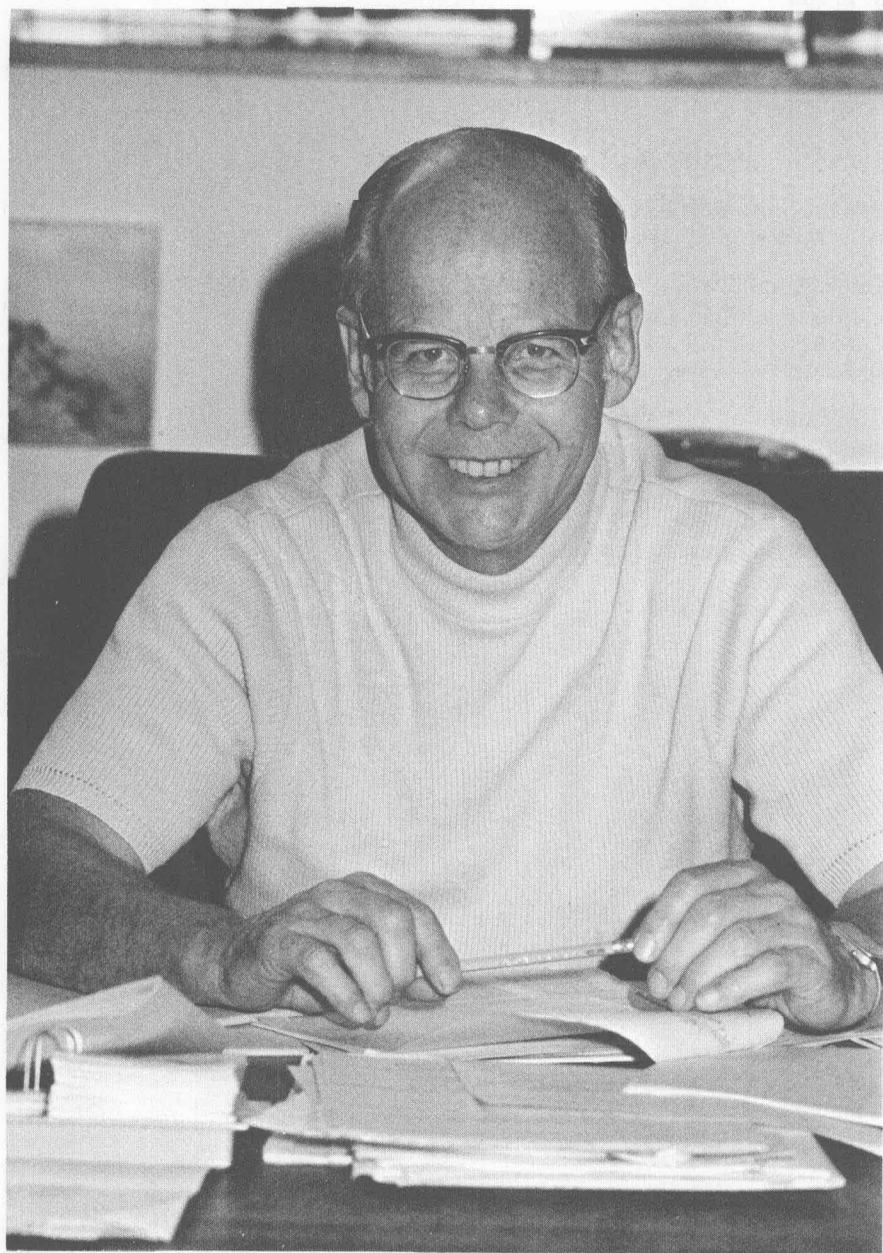
1. Pharmacology—Congresses. 2. Molecular biology—  
Congresses. I. Singer, Thomas Peter, 1920-  
II. Ondarza, Raúl N. III. Title. IV. Series: Develop-  
ments in biochemistry; v. 19. [DNLM: 1. Chemistry,  
Pharmaceutical—Congresses. 2. Drugs—Metabolism—  
Congresses. W1 DE997VG v.19 / QV 38 I6053m 1980]  
RM300.I55 1980 615'.7 81-3185  
ISBN 0-444-00632-X AACR2

Manufactured in the United States of America

## MOLECULAR BASIS OF DRUG ACTION

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## Dedication

One of the highlights of the conference in Querétaro was the presentation of a movie based upon a computer graphic analysis of the "docking" of thyroxin in the receptor site on prealbumin. The lucid and exciting presentation by Dr. Eugene C. Jorgensen was one of his last presentations as only a few weeks later he was struck down by a hand unknown.

A warm, gentle, compassionate human being and outstanding scientist, he will be sorely missed by all who had the good fortune of knowing him. In honor of his part in our conference, and in gratitude for his scientific contributions we would like to dedicate this volume to his memory.

The Editors

## Foreword

Thirty years ago, people were just starting to talk about the possibility of designing drugs by understanding their biochemical mechanism of action. It is both discouraging (because of the length of time since) and encouraging (because of recent successes) that a conference such as the one reported in this volume held in Querétaro, Mexico could take place. This Conference brought together people in disciplines as diverse as chemistry and clinical medicine to discuss both where we are and where we can hope to be going.

The Conference itself was perceived as a great success by all participants as questions ranging from the synthetic pathway to a new structure to the need for laboratory assistance in the diagnosis of tropical disease were raised. Although the diversity of discussion meant that each of us had occasional problems in following discussions in areas outside of our immediate interest and expertise, the cross-fertilization of ideas was intense. It is to be hoped that the report of the Conference will be as stimulating and useful to all who have the opportunity to read it and that we are now about to enter a time in which drugs are designed on the basis of their biochemical action.

Jere E. Goyan  
Commissioner  
U.S. Food and Drug Administration



## Preface

This is the second in a series of international symposia organized by the editors of this volume. The first one was held in La Paz, Baja California Sur, Mexico, in December, 1977. Despite the specialized subject matter, the meeting was highly successful and the resulting publication (*Mechanisms of Oxidizing Enzymes*, ed. by T.P. Singer and R. Ondarza, Elsevier/North Holland, 1978) received wide critical acclaim.

It was thought appropriate to select a subject for the second symposium which would reflect more closely the interests of the scientific community of the host country and of the actual needs of its people, while retaining the high intellectual standards of the first symposium. The suggestion that the meeting center around a discussion of the molecular basis of drug action and what it teaches us about the most effective ways of designing new drugs recieved enthusiastic support from both prominent workers in the field and from Conacyt, the National Council of Science and Technology of Mexico, who provided generous support at the outset. This timely financial and moral support assured the organizers that it was feasible to mount the symposium, despite the ever-dwindling financial support for scientific meetings, coupled with rapidly rising travel costs worldwide. An Organizing Committee was selected to include distinguished workers from organic chemistry, biochemistry, pharmacology, and clinical medicine, whose advice was invaluable in arranging the program.

As in the first meeting in this series, the organizers sought a location away from tourist traffic and the distractions of cosmopolitan areas, so as to provide a relaxed, tranquil setting for informal discussion. The beautiful grounds of La Mansion Galindo, Querétaro, Mexico provided an ideal setting for the meeting, which was held October 13-16, 1980.

Judging by the comments of the participants, the symposium was eminently successful as a forum for learning from distinguished colleagues in allied fields, as a place to generate and to impart ideas for future research, and to plot the course of future investigations. Much of the credit for the smooth running of the meeting is due to the efficient work of the clerical staff consisting of Sra. Helen Dawe Mendoza, Sta. Maria Savone, Sta. Araceli Cacho, and Sta. Ana Briones.

Our profound thanks are due to the organizations which provided the financial support for this meeting: the International Union of Biochemistry, the National Council of Science and Technology (Conacyt), the National Autonomous University of Mexico, the National Institutes of Health, the British Council, the Government of Germany, Hoffman-La Roche, Inc., Merck Sharpe & Dohme Research Laboratories, Miles Laboratories, Inc., Smith Kline & French Laboratories, the Upjohn Company, and Wyeth-Vales, S.A.

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INTERNATIONAL SYMPOSIUM ON MOLECULAR BASIS OF  
DRUG ACTION

Querétaro, Mexico  
October 13-16, 1980

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The International Union of Biochemistry  
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The Government of Germany  
Hoffman-La Roche, Inc.  
Merck Sharpe & Dohme Research Laboratories  
Miles Laboratores, Inc.  
Smith Kline & French Laboratories  
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*Joint Chairmen:*

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Thomas P. Singer, U.S.A.

Augusto Bondani, Mexico; Rodolfo Rodriguez Carranza, Mexico;  
Dale Edmondson, U.S.A.; Enrique Hong, Mexico; Tag Mansour,  
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David Zakim, U.S.A.

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